National Center on
INTENSIVE INTERVENTION
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Education Programs

Intervention Taxonomy Brief: Seeing Stars® Program: Symbol Imagery for Phonological and Orthographic Processing in Reading and Spelling

The goal of this brief is to provide educators with information they can use to evaluate the appropriateness of the **Seeing Stars® Program: Symbol Imagery for Phonological and Orthographic Processing in Reading and Spelling** for a specific student or group of students who require supplemental and intensive intervention. The brief also may be used to guide decisions about the selection or purchase of a new intervention. We envision that the brief may allow users to examine the extent to which the program aligns to the Taxonomy of Intervention Intensity, a framework used by educators to categorize interventions along key dimensions. The information included in this brief is organized along the seven dimensions of the Taxonomy of Intervention Intensity and can assist educators in answering the following questions:

- Does evidence suggest that this intervention is expected to lead to improved outcomes in the identified area of need (**strength**)?

- Will the group size, duration, structure, and frequency provide sufficient opportunities for students to respond and receive corrective feedback (**dosage**)?

- Does the intervention match the student's identified needs (**alignment**)?

- Does the intervention assist the student in generalizing target skills to general education or other tasks (**attention to transfer**)?

- Does the intervention include elements of explicit instruction (**comprehensiveness**)?

- Does the student have opportunities to develop the behavior skills necessary to be successful (**behavioral support**)?

- Can the intervention be individualized with a data-based process to meet student needs (**individualization**)?

To learn more about the Taxonomy of Intervention Intensity and find resources to support implementation, visit https://intensiveintervention.org/taxonomy-intervention-intensity.

Program Summary

Lindamood-Bell collaborates with schools/districts using a Professional Learning Community (PLC) model to customize a Response to Intervention (RtI) design to best meet the aggregate learning needs of all students. Seeing Stars® Program: Symbol Imagery for Phonological and Orthographic Processing in Reading and Spelling and its constituent components are based on ESSA Evidence-Based programs and substantive neuroscientific and applied research initiatives in public education. We accomplish this within the mandates of IDEA, state and local education policies. Each partnership is unique depending on existing school/district variables. Lindamood-Bell's partnership and PLC philosophy is built around two main RtI concepts necessary to transform schools academically. First, instructional methodologies are based on a theory of cognition. This process-based cognitive approach stimulates specific brain-based skills including phonological and symbol imagery (orthographic processing), decoding, reading in context, and spelling. These underlying cognitive processes must be developed (Tier I) and/or remediated (Tier II & III) for all students to maximize their learning potential and benefit from standards-based instruction, strategies, materials, and curricula. Thus Lindamood-Bell adheres to and promotes a paradigm shift in how to best meet the cognitive and language processing needs of students, integrating both process and content/standards-based instruction. The skills addressed are foundational to all curricula and they cut across all standards. Second, while Lindamood-Bell's instructional practices are necessary, they are insufficient without simultaneously controlling for certain components or practices within the school system and/or culture in which they are to be implemented. To achieve large-scale and sustainable success, Lindamood-Bell collaborates with all levels of leadership, including the school board, district administration, and site-level leaders in evidence-based practices. Lindamood-Bell's approach is to work in a collaborative effort to address and improve the existing school framework, personnel, and practices all as applied to an RtI framework. Specifically, the main district and school leadership support components include sustained and embedded professional development, data analyses and accountability, differentiated instruction, leadership institutes, parent/community outreach, and a certification process for teachers. This model mirrors the conceptual framework of RtI.

Exhibit 1. Program Information

Features of program implementation	Program recommendations
Grade level(s)	PK–12
Group size	Up to 5:1 in homogeneous groups based on diagnostic data. Whole class, developmentally K–2
Intervention length	Approximately 8–12 weeks, or about 80–120 hours
Frequency	4–5 days per week
Session duration	1–4 hours per day

Features of program implementation	Program recommendations
Cost	▪ Level 1[a] • Public workshop: $750 + $400 required materials = $1,150/participant • Inservice workshop: $650 + $400 required materials = $7,650 for a minimum of seven participants, $1,050 per additional participant ▪ Level 2: Annual membership = $99. Complimentary access for Inservice Workshop participants ▪ Level 3: Job-embedded PD beginning at $2,500 per classroom weekly or $1,950 per classroom biweekly ▪ Level 4: Comprehensive School Partnership: $13,000 + $2,500 per classroom
Training	Levels of PD provided are based on teacher, school, or district needs. ▪ Level 1, Introduction • Workshop (13 seat hours), online or in-person • Review modules (five seat hours), asynchronous ▪ Level 2, Refinement • 12-month membership • Skills Boost modules (three seat hours), asynchronous • Bimonthly content webinars • Online professional learning community and forum ▪ Level 3, Advanced • Job-embedded PD (weekly coaching sessions for one to two semesters) • Advanced training modules (six seat hours), asynchronous • Monthly PLC meetings • Instructional leadership development ▪ Level 4, Systemic Model • Job-embedded PD (weekly coaching sessions) • Instructional leadership modules (seven seat hours, asynchronous) • Diagnostic assessment training (seven seat hours, synchronous and asynchronous) • Monthly PLC meetings • Leadership Academy

Note. PD = professional development; PLC = professional learning community.

[a] Level 1 Workshops are a required prerequisite for all other levels of professional learning.

Evidence of Taxonomy of Intervention Intensity Dimensions

The following section presents definitions for the Taxonomy of Intervention Intensity dimensions and a summary of intervention-specific evidence for each dimension. The evidence comes from the intervention's vendor or developer. It is accurate as reported to the National Center on Intensive Intervention (NCII); it was not independently verified by NCII. Additional program evidence can be found on the NCII Tools Chart and might appear on the What Works Clearinghouse. For specific questions about the content, contact Gander Publishing at https://ganderpublishing.com/, Customer Service at customerservice@ganderpublishing.com, or Tom Mendoza at tom.mendoza@lindamoobell.com.

Taxonomy Dimension: Strength

Strength tells us how well the program works for students with intensive intervention needs, expressed in terms of effect sizes. Effect sizes greater than 0.25 indicate an intervention has value in improving outcomes. Effect sizes of 0.35 to 0.40 are moderate, and effect sizes of 0.50 or larger are strong (preferred).

Exhibit 2 provides the effect sizes for students in need of intensive intervention organized by domain and subdomain. These effect size data are calculated on low-achieving participants, those falling at or below the 20th percentile on pretest measures of achievement. If available, additional effect sizes for disaggregated data can be found on the NCII Tools Chart.

Exhibit 2. The Seeing Stars Program: Symbol Imagery for Phonological and Orthographic Processing in Reading and Spelling Effect Sizes for Students ≤20th Percentile by Domain and Subdomain

Domain	Subdomain	Outcome Measures	Effect size[a]
Reading	Phonological Awareness	Lindamood Auditory Conceptualization Test, 3rd Edition	Unavailable
Reading	Orthographic Awareness	Symbol Imagery Test	Unavailable
Reading	Word Reading	Wide Range Achievement Tests, 3rd Edition	Unavailable
Writing	Spelling	Wide Range Achievement Tests, 3rd Edition	Unavailable
Reading	Word Attack	Woodcock Reading Mastery, Revised Edition	Unavailable
Language	Oral Directions	Detroit Tests of Learning Aptitude	Unavailable
Reading	Reading Accuracy	Gray Oral Reading Test, 4th Edition (GORT-4)	Unavailable
Reading	Reading Fluency	GORT-4	Unavailable
Reading	Paragraph Reading Rate	GORT-4	Unavailable
Reading	Comprehension	GORT-4	Unavailable
Reading	Vocabulary	Peabody Picture Vocabulary, 4th Edition (Form A)	Unavailable
Reading	Oral Reading Fluency	Dynamic Indicators of Basic Early Literacy Skills, 6th Edition	Unavailable
Reading	Phonemic Decoding Efficiency	Test of Word Reading Efficiency, 2nd Edition	Unavailable
Reading	Sight Word Efficiency	Test of Word Reading Efficiency, 2nd Edition	Unavailable
Reading	Word Identification	Woodcock Reading Mastery Test, 3rd Edition	Unavailable
Reading	Reading Skill index	Basic Reading Skills—Woodcock Johnson, 4th Edition	Unavailable
Reading	Basic Reading Skills	Woodcock Johnson, 4th Edition	Unavailable

Domain	Subdomain	Outcome Measures	Effect size[a]
Reading	Letter-Word Identification	Woodcock Johnson, 4th Edition	Unavailable
Reading	Oral Reading	Woodcock Johnson, 4th Edition	Unavailable
Reading	Phonemic Decoding Efficiency	Test of Word Reading Efficiency, 2nd Edition	Unavailable
Reading	Reading Fluency	Woodcock Johnson, 4th Edition	Unavailable
Reading	Sentence Reading Fluency	Woodcock Johnson, 4th Edition	Unavailable
Reading	Sight Word Efficiency	Test of Word Reading Efficiency, 2nd Edition	Unavailable
Reading	Reading Index	Test of Word Reading Efficiency, 2nd Edition	Unavailable
Reading	Word Attack	Woodcock Johnson, 4th Edition	Unavailable
Reading	Reading Fluency Composite	Composite—Test of Word Reading Efficiency	Unavailable
Reading	Reading Fluency	Woodcock Johnson, 4th Edition	Unavailable
Reading	Basic Reading Skills	Woodcock Johnson, 4th Edition	Unavailable
Reading	Phonemic Decoding Efficiency	Test of Word Reading Efficiency, 2nd Edition	Unavailable
Reading	Word Attack	Woodcock Reading Mastery Test, 3rd Edition	Unavailable
Reading	Word Identification	Woodcock Reading Mastery Test, 3rd Edition	Unavailable
Reading	Sight Word Efficiency	Test of Word Reading Efficiency, 2nd Edition	Unavailable

[a] To ensure comparability of effect size across studies, NCII uses a standard formula to calculate effect sizes across all studies and outcome measures—Hedges *g*, corrected for small-sample bias.

Taxonomy Dimension: Dosage

Dosage is the number of opportunities a student has to respond or practice and receive corrective feedback. Dosage may be impacted by the size of the instructional group, the number of minutes each session lasts, the number of student-teacher interactions built into lessons, and the number of sessions provided per week.

Assuming a group size of five students, each student in the group has an estimated 30 opportunities to respond and receive corrective feedback.

Taxonomy Dimension: Alignment

Alignment (Exhibit 3) focuses on how well the program (a) addresses the target student's full set of academic skill deficits, (b) does not address skills the target student has already mastered (extraneous skills for that student), and (c) incorporates a meaningful focus on grade appropriate curricular standards.

Exhibit 3. Alignment With Content Areas Addressed

Instructional grade level(s)	Content area addressed	Skill strands
Kindergarten	Reading Foundational Skills	▪ Print Concepts ▪ Phonological Awareness ▪ Phonics and Word Recognition ▪ Fluency
Grade 1	Reading Foundational Skills	▪ Print Concepts ▪ Phonological Awareness ▪ Phonics and Word Recognition ▪ Fluency
Grade 2	Reading Foundational Skills	▪ Phonics and Word Recognition ▪ Fluency
Grade 3	Reading Foundational Skills	▪ Phonics and Word Recognition ▪ Fluency
Grade 4	Reading Foundational Skills	▪ Phonics and Word Recognition ▪ Fluency
Grade 5	Reading Foundational Skills	▪ Phonics and Word Recognition ▪ Fluency
Grade 6	Reading Literature and Informational Text	▪ Fluency
Grade 7	Reading Literature and Informational Text	▪ Fluency

Taxonomy Dimension: Teaching to Promote Transfer

Attention to transfer is the extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.

For reading consonant-vowel-consonant words (CVC; instructional target), three activities designed to explicitly teach for transfer are student air writing, using symbol imagery exercises, and using Socratic questioning students' erroneous responses.

Activity 1: Student Air Writing. Removing the visual stimulus and having students write imaged letters in the air develops their symbol imagery/orthographic processing, which is the necessary sensory cognitive process underscoring all decoding/spelling and writing tasks. By stabilizing symbol imagery (orthographic mapping), students can transfer that skill to spelling words consistent with regular spelling patterns at the single syllable and multisyllable levels as well as words with irregular spelling patterns.

Activity 2: Phonetically and Orthographically Track Simple Syllables, Complex Syllables, and Multi Syllables. Provide students with direct instruction and repetitive practice for auditorily processing sounds in words, blending, manipulating, identifying, adding, omitting, and substituting all known sounds in various combinations of vowels (V) and consonants (C): CV/VC-CVC, CCV, VCC, and CCVCC syllables and multisyllable words. Reinforce common phonics rules and expectancies to reading and spelling, such as Final-e and Open/Closed Syllable; Two Vowels Go Walking; and -ay, -tch, -dge, -ck, and -ight, as well as when to use "c" vs. "s" and "g" vs. "j."

Taxonomy Dimension: Comprehensiveness

Comprehensiveness is the number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; providing practice so that students use the strategies to generate many correct responses; and incorporating systematic cumulative review). Additional information can be found within the NCII Explicit Instruction course content materials.

Dimension: Provide Explanations in Simple, Direct Language
Activity 1: Setting the Climate
(Exhibit 4) briefly explains to students what they will be doing and why, drawing and talking at the same time to illustrate expectations in an upcoming task, with the teacher saying: "I am going to teach you to see sounds and letters in your imagination. It will help you read and spell better, and here's how you picture that."
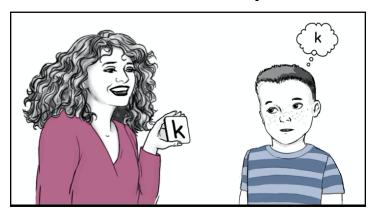
Exhibit 4. Setting the Client Example

The student images, air-writes, and says his name.

Activity 2: Image and Say Sounds and Letters (Exhibit 5) includes the teacher showing the letter card for a few seconds and then takes it away with the student imaging, saying letter name/sound, and air writing. The teacher says: "After I take this card away, say the letter name and sound as you write the letter in the air."

Dimension: Provide Practice So That Students Use the Strategies to Generate Correct Responses
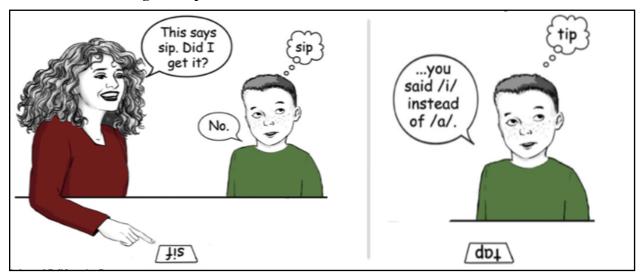
Exhibit 5. Sounds and Letters Example

Activity 1: Socratic questioning (Exhibit 6) of student errors to promote self-correction: Find a spot in the student's response from which to positively engage the student and socratically asks questions to help the student analyze the response and help the student compare his/her response to the stimulus.

Exhibit 6. Socratic Questioning Example

Activity 2: Miscalling for Monitoring (Exhibit 7). Miscalling explicitly develops the student's use of symbol imagery (orthographic processing) to self-correct errors. The teacher makes an error and prompts the student to take the teacher's role and correct the error.

Exhibit 7. Miscalling Example

Dimension: Model Efficient Solution Strategies
Activity 1: Teaching Basic Spelling Rules Using Orthographic Spelling Patterns (Exhibit 8). The teacher introduces the most frequent spelling rules, such as the Final -e rule, the Two Vowels Go Walking rule, and C and G expectancies. The teacher demonstrates through a Socratic discovery process while drawing and explains, "Two vowels go walking and the first one does the talking.

Activity 2: C-Rule (Exhibit 9). The teacher demonstrates through a Socratic discovery process while drawing and explains, "When 'c' is followed by 'i,' 'e,' or 'y,' it says the /s/ sound, as in city, cent, and cycle."

Exhibit 8. Spelling Patterns Example
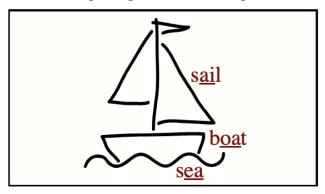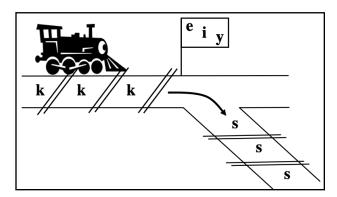
Exhibit 9. The C Rule

Dimension: Incorporate Systematic Cumulative Review

Activity 1: Visual Spelling Chart (Exhibit 10). The Seeing Stars Visual Spelling Chart introduces the task of spelling as an integration of sensory-cognitive functions, and by developing phonological and orthographic processing for spelling, students can place orthographic patterns in their memory. The chart facilitates the Analyze/Visualize/Write technique, with the teacher writing in the first and second columns, and student analyzing and noting the irregular part of the word and then writing the word in the last column.

Exhibit 10. Visual Spelling Chart Example

Activity 2: Image, Read, and Spell Multisyllabic Words (Exhibit 11). After stabilizing single-syllable processing, explicit instruction in multisyllable symbol imagery (orthographic processing) and decoding is needed to ensure decoding accuracy and self-correction at the multisyllabic level. The teacher introduces breaking rules/tips for multisyllabic words.

Exhibit 11. Multisyllabic Words Example

Activity 3: Integration for Contextual Reading Fluency and Comprehension (Exhibit 12). As students stabilize phonological and orthographic processing in single syllables and establish some sight words, they overlap into contextual reading at an easy reading level. The teacher introduces contextual reading using short, self-contained paragraphs at an easy reading level, scaffolding in difficulty as students increase rate.

Taxonomy Dimension: Behavioral Support
Behavioral support addresses the extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize undesired behavior. Additional information can be found within the NCII behavioral support course content*.*

Exhibit 12. Contextual Fluency

Activity 1: Nonverbal Behavior Modification Tools/Reinforcement (Exhibit 13). Every student has a bucket/jar for storing Magic Stones (or any other small objects, e.g., beans, tokens) to reinforce positive behavior. Take away stones when behavior needs to be redirected. Stones may be traded in for Star Cards or a prize immediately after the bucket is full. Stones should be given frequently and consistently.

Activity 2: Magical Learning Moment Cards (Exhibit 14). On-the-spot recognition is given to a student to recognize effort and tasks done well. Cards go in the Magical Learning Moment box, and a schedule for drawing a winner is set. If possible, coordinate with the principal to make an announcement.

Activity 3: Progress Monitoring Charts/Instructional Records (Exhibit 15). Real-time progress monitoring documents instruction and notes errors and areas of difficulty as well as when tasks are too easy.

Exhibit 13. Reinforcement Example
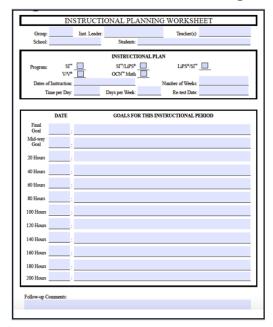
Exhibit 14. Learning Moment Card Example

Exhibit 15. Progress Monitoring Example

Activity 4: Instructional Planning and Pacing (Exhibit 16). Based on student data, groups are formed homogeneously, and an instructional plan is formed with instructional records capturing student responses that are regularly reviewed to assess each task on the lesson plan and adjust for relevancy to the student's goals collectively and individually. Does the current task match the goals for instruction? Has the student's performance changed? What works for the group?

Exhibit 16. Instructional Planning Example

Intervention Taxonomy Brief: Visualizing and Verbalizing® Program for Language Comprehension and Thinking

The goal of this brief is to provide educators with information they can use to evaluate the appropriateness of the **Visualizing and Verbalizing® Program for Language Comprehension and Thinking** for a specific student or group of students who require supplemental and intensive intervention. The brief also may be used to guide decisions about the selection or purchase of a new intervention. We envision that the brief may allow users to examine the extent to which the program aligns to the Taxonomy of Intervention Intensity, a framework used by educators to categorize interventions along key dimensions. The information included in this brief is organized along the seven dimensions of the Taxonomy of Intervention Intensity and can assist educators in answering the following questions:

- Does evidence suggest that this intervention is expected to lead to improved outcomes in the identified area of need (**strength**)?

- Will the group size, duration, structure, and frequency provide sufficient opportunities for students to respond and receive corrective feedback (**dosage**)?

- Does the intervention match the student's identified needs (**alignment**)?

- Does the intervention assist the student in generalizing target skills to general education or other tasks (**attention to transfer**)?

- Does the intervention include elements of explicit instruction (**comprehensiveness**)?

- Does the student have opportunities to develop the behavior skills necessary to be successful (**behavioral support**)?

- Can the intervention be individualized with a data-based process to meet student needs (**individualization**)?

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Program Summary

Lindamood-Bell collaborates with schools/districts using a Professional Learning Community (PLC) model to customize a Response to Intervention (RtI) design to best meet the aggregate learning needs of all students. Visualizing and Verbalizing® Program for Language Comprehension and Thinking and its constituent components are based on ESSA Evidence-Based programs and substantive neuroscientific and applied research initiatives in public education. We accomplish this within the mandates of IDEA, state and local education policies. Each partnership is unique depending on existing school/district variables. Lindamood-Bell's partnership and PLC philosophy is built around two main RtI concepts necessary to transform schools academically. First, instructional methodologies are based on a theory of cognition. This

process-based cognitive approach stimulates specific brain-based processes (mental representations) basic to language comprehension and critical thinking. One of the primary goals of the course is to make class members aware that concept imagery is the specific sensory-cognitive function basic to language comprehension and critical thinking. These underlying cognitive processes must be developed (Tier I) and/or remediated (Tier II & III) for all students to maximize their learning potential and benefit from standards-based instruction, strategies, materials, and curricula. Thus Lindamood-Bell adheres to and promotes a paradigm shift in how to best meet the cognitive and language processing needs of students, integrating both process and content/standards-based instruction. The skills addressed are foundational to all curricula and they cut across all standards. Second, while Lindamood-Bell's instructional practices are necessary, they are insufficient without simultaneously controlling for certain components or practices within the school system and/or culture in which they are to be implemented. To achieve large-scale and sustainable success, Lindamood-Bell collaborates with all levels of leadership, including the school board, district administration, and site-level leaders in evidence-based practices. Lindamood-Bell's approach is to work in a collaborative effort to address and improve the existing school framework, personnel, and practices all as applied to an RtI framework. Specifically, the main district and school leadership support components include sustained and embedded professional development, data analyses and accountability, differentiated instruction, leadership institutes, parent/community outreach, and a certification process for teachers. This model mirrors the conceptual framework of RtI. By incorporating a collaborative, problem-solving framework to increase student achievement, Lindamood-Bell's PLC model has been shown to meet the needs of all students and sustain results over time.

Exhibit 1. Program Information

Features of program implementation	Program recommendations
Grade level(s)	PK–12
Group size	• 5:1 in homogeneous groups based on diagnostic data • Whole class, developmentally
Intervention length	Approximately 8–12 weeks, or about 80–120 hours
Frequency	4–5 days per week
Session duration	1–4 hours per day

Cost	▪ Level 1[a]:
	  • *Public Workshop*: $750 + $400 required materials = $1,150/participant
	  • *In-service Workshop*: $650 + $400 required materials = $7,650 for a minimum of seven participants; $1,050 per additional participant
	▪ Level 2: Annual membership = $99. Complimentary access for In-service Workshop participants.
	▪ Level 3: Job-Embedded Professional Development (PD): begins at $2,500 per classroom weekly or $1,950 per classroom biweekly.
	▪ Level 4: Comprehensive School Partnership: $13,000 + $2,500 per classroom.

Features of program implementation	Program recommendations
Training	Levels of professional development are provided based on teacher, school, or district needs. ▪ Level 1: Introduction • Workshop (13 seat hours), online or in-person • Review modules (five seat hours), asynchronous ▪ Level 2: Refinement • 12-month membership • Skills Boost modules (three seat hours), asynchronous • Bimonthly content webinars • Online professional learning community and forum ▪ Level 3: Advanced • Job-embedded PD (weekly coaching sessions for one to two semesters) • Advanced training modules (six seat hours), asynchronous • Monthly professional learning community meetings • Instructional leadership development ▪ Level 4: Systemic Model • Job-embedded PD (weekly coaching sessions) • Instructional leadership modules (seven seat hours, asynchronous) • Diagnostic assessment training (seven seat hours, synchronous and asynchronous) • Monthly professional learning community meetings • Leadership academy

[a] Level 1 workshops are a required prerequisite for all other levels of professional learning.

Evidence of Taxonomy of Intervention Intensity Dimensions

The following section presents definitions for the Taxonomy of Intervention Intensity dimensions and a summary of intervention-specific evidence for each dimension. The evidence comes from the intervention's vendor or developer. It is accurate as reported to the National Center on Intensive Intervention (NCII); it was not independently verified by NCII. Additional program evidence can be found on the NCII Tools Chart and might appear on the What Works Clearinghouse. For specific questions about the content, contact the publisher at Gander Publishing: https://ganderpublishing.com/; Customer Service (customerservice@ganderpublishing.com); or Tom Mendoza (tom.mendoza@lindamoobell.com).

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Exhibit 2. The Visualizing and Verbalizing Program for Language Comprehension and Thinking Effect Sizes for Students ≤20th Percentile by Domain and Subdomain

Domain	Subdomain	Outcome measures	Effect size[a]
Language	Oral Direction	Detroit Test of Learning Aptitude, 2nd Edition	Unavailable
Language	Vocabulary	Peabody Picture Vocabulary Test, 3rd Edition	Unavailable
Early Literacy	Phonological Awareness	Lindamood Auditory Conceptualization Test, 3rd Edition	Unavailable
Early Literacy	Orthographic awareness	Symbol Imagery Test	Unavailable
Early Literacy	Word Reading	Wide Range Achievement Test, 3rd Edition	Unavailable
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Reading	Reading Fluency: Accuracy	GORT-4	Unavailable
Reading	Comprehension: Paragraph Reading Comprehension	GORT-4	Unavailable
Writing	Spelling	Wide Range Achievement Test, 3rd Edition	Unavailable
Reading	Word Attack	Woodcock Reading Mastery Test, Revised Normative Update	Unavailable

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Taxonomy Dimension: Dosage
Dosage is the number of opportunities a student has to respond or practice and receive corrective feedback. Dosage may be impacted by the size of the instructional group, the number of minutes each session lasts, the number of student-teacher interactions built into lessons, and the number of sessions provided per week.

Assuming a group size of five students, each student in the group has an estimated 30 opportunities to respond and receive corrective feedback.

Taxonomy Dimension: Alignment
Alignment (Exhibit 3) focuses on how well the program (a) addresses the target student's full set of academic skill deficits, (b) does not address skills the target student has already mastered (extraneous skills for that student), and (c) incorporates a meaningful focus on grade appropriate curricular standards.

Exhibit 3. Alignment With Content Areas Addressed

Instructional grade level(s)	Content area addressed	Skill strands
Grade 6	ELA (English language arts)	Speaking and Listening • Comprehension and Collaboration • Presentation of Knowledge and Ideas Language • Conventions of Standard English • Vocabulary Acquisition and Use Writing • Text Types and Purposes • Production and Distribution of Writing • Research to Build and Present Knowledge Reading: Informational Text • Key Ideas and Details • Craft and Structure • Integration of Knowledge and Ideas • Range of Reading and Level of Text Complexity Reading: Literature • Key Ideas and Details • Craft and Structure • Integration of Knowledge and Ideas • Range of Reading and Level of Text Complexity
Grade 7	ELA	Speaking and Listening • Comprehension and Collaboration • Presentation of Knowledge and Ideas Language • Conventions of Standard English • Vocabulary Acquisition and Use Writing • Text Types and Purposes • Production and Distribution of Writing • Research to Build and Present Knowledge Reading: Informational Text • Key Ideas and Details • Craft and Structure • Integration of Knowledge and Ideas • Range of Reading and Level of Text Complexity Reading: Literature • Key Ideas and Details • Craft and Structure • Integration of Knowledge and Ideas • Range of Reading and Level of Text Complexity
Grade 8	ELA	Speaking and Listening

Instructional grade level(s)	Content area addressed	Skill strands
		• Comprehension and Collaboration • Presentation of Knowledge and Ideas Language • Conventions of Standard English • Vocabulary Acquisition and Use Writing • Text Types and Purposes • Production and Distribution of Writing
Grade 9	ELA	Speaking and Listening ▪ Comprehension and Collaboration ▪ Presentation of Knowledge and Ideas Writing ▪ Text Types and Purposes ▪ Production and Distribution of Writing ▪ Research to Build and Present Knowledge Reading: Informational Text ▪ Key Ideas and Details ▪ Craft and Structure ▪ Range of Reading and Level of Text Complexity Reading: Literature ▪ Key Ideas and Details ▪ Craft and Structure ▪ Range of Reading and Level of Text Complexity
Grade 10	ELA	Speaking and Listening ▪ Comprehension and Collaboration ▪ Presentation of Knowledge and Ideas Writing ▪ Text Types and Purposes ▪ Production and Distribution of Writing ▪ Research to Build and Present Knowledge Reading: Informational Text ▪ Key Ideas and Details ▪ Craft and Structure ▪ Range of Reading and Level of Text Complexity Reading: Literature ▪ Key Ideas and Details ▪ Craft and Structure ▪ Range of Reading and Level of Text Complexity
Grade 11	ELA	Language ▪ Conventions of Standard English ▪ Vocabulary Acquisition and Use Writing

Instructional grade level(s)	Content area addressed	Skill strands
		▪ Text Types and Purposes ▪ Production and Distribution of Writing ▪ Research to Build and Present Knowledge Reading: Informational Text ▪ Key Ideas and Details ▪ Craft and Structure ▪ Range of Reading and Level of Text Complexity Reading: Literature ▪ Key Ideas and Details ▪ Craft and Structure ▪ Range of Reading and Level of Text Complexity
Grade 12	ELA	Language ▪ Conventions of Standard English ▪ Vocabulary Acquisition and Use Writing ▪ Text Types and Purposes ▪ Production and Distribution of Writing ▪ Research to Build and Present Knowledge Reading: Informational Text ▪ Key Ideas and Details ▪ Craft and Structure ▪ Range of Reading and Level of Text Complexity Reading: Literature ▪ Key Ideas and Details ▪ Craft and Structure ▪ Range of Reading and Level of Text Complexity

Taxonomy Dimension: Teaching to Promote Transfer
Attention to transfer is the extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.

For identifying main idea (instructional target), three activities designed to explicitly teach for transfer are (a) questioning for sentence imagery from subject to verb to object, (b) questioning toward the gestalt of the paragraph, and (c) connecting higher order thinking to gestalt imagery.
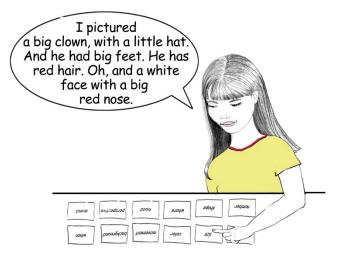
Activity 1: Setting the Task: Picture to Picture/Word Imagery. By developing a student's ability to verbalize from a given picture (simple to complex concepts), this activity begins the development of the imagery-language connection and will increase the length and complexity of the student's expressive language and ultimately their writing (Exhibit 4). Pictures are used for introducing unknown concepts to transfer this skill to content vocabulary.

Activity 2: Word Imagery/Vocabulary Task. Students describe a simple familiar word/noun (either with or without a visual prompt), and the teacher asks questions about specific details as needed (Exhibit 5). The teacher prompts the students to use all of the 12 "Structure Words" to ensure a clear understanding of (picture for) the word/noun and to continue developing oral expressive language, chosen words progress from known, common words to unknown words, concrete unknown words, abstract words, grade-appropriate common terms, domain specific terms, and text or curriculum-level vocabulary.

Exhibit 4. Picture to Picture/Word Imagery Example

Exhibit 5. Word Imagery/Vocabulary Task Example

Activity 3: Connect Higher Order Thinking to Gestalt Imagery. After the student verbalizes a brief word summary, the teacher prompts for detail related to the main idea from the imaged gestalt/whole (Exhibit 6). The teacher helps connect higher order thinking to gestalt imagery by saying: "From all your images, what was the main idea?"

Taxonomy Dimension: Comprehensiveness
Comprehensiveness is the number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; providing practice so that students use the strategies to generate many correct responses; and incorporating systematic cumulative review). Additional information can be found within the NCII Explicit Instruction course content materials.

Exhibit 6. Connecting Higher Order Thinking to Gestalt Imagery Example

Dimension: Provide Explanations in Simple, Direct Language
Activity 1: Setting the Climate. Briefly explain to the student(s) what they will be doing and why, drawing and talking at the same time to illustrate expectations in the upcoming task (Exhibit 7). The teacher says: "We will picture words in our minds. We can picture a house, and we can say house. Words turn into pictures, and pictures turn into words. This will help us remember what we read and hear."

Exhibit 7. Setting the Climate Example

Activity 2: Single Paragraph Processing-Sentence by Sentence Task. Students describe imagery for a self-contained paragraph, broken up one sentence at a time, with the teacher questioning the student's imagery using all 12 "Structure Words" to ensure a clear understanding of (picture for) the initial sentence and to refine, re-verbalize, and clarify imagery/comprehension of text. After all sentences are completed (imaged), the teacher asks students to retell the story in their own words using their imagery, initially done orally and then extended to written language comprehension (Exhibit 8).

Exhibit 8. Language Comprehension Example

Dimension: Model Efficient Solution Strategies
Activity 1: Visualizing and Verbalizing Sentence by Sentence with Higher Order Thinking.
Automaticity in imagery and verbalization is the goal, as the student places a colored square for
his/her sentence imagery and then visualizes and verbalizes each sentence. The teacher questions
with choice and contrast, keeping in mind the importance of questioning for details as well as to
the gestalt: The student gives a picture summary and a word summary and then verbalizes the
main idea from that imaged gestalt (Exhibit 9).

Exhibit 9. Imagery and Verbalization Example

Activity 2: Imagery as the Basis for Grammar and Punctuation. The imagery/thinking base
is used to monitor for grammar and punctuation on the basis that writing creates images. The
imagery-language connection becomes the base for editing and correcting rather than solely
relying on memorizing grammar and punctuation rules.
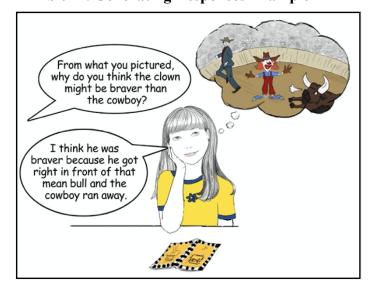
Dimension: Provide Practice So That Students Use Strategies to Generate Correct Responses
Activity 1: Socratic Questioning. Using choice/contrast language directly stimulates the sensory
input of imagery—the nonverbal code. This method is repeatedly used throughout all steps of the
Visualizing and Verbalizing Program. A Socratic learning environment questions and interacts
with a student to help students compare their response to the stimulus (Exhibit 10).

Exhibit 10. Socratic Technique Example

Activity 2: Whole Paragraph With Higher Order Thinking. Connecting higher order thinking to gestalt imagery is key in assisting the student in answering main idea, inference, conclusion, and prediction questions. By questioning for specific images within the paragraph, the student is creating and accessing imagery rather than paraphrasing, which contributes to refining the student's expressive language skills (Exhibit 11) and improving his/her writing skills.
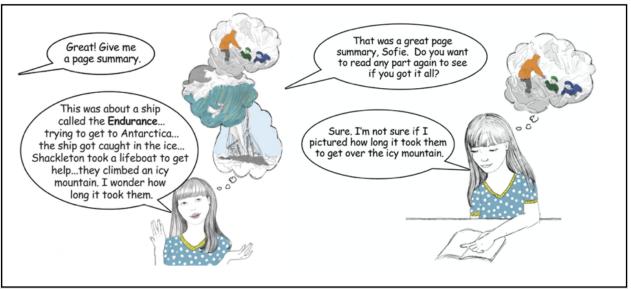
Exhibit 11. Generating Responses Example

Dimension: Incorporating Systematic Cumulative Review
Activity 1: Page Imaging With Higher Order Thinking. The student visualizes a whole page of connected text and gives a page summary. The teacher asks specific imagery questions from the page of content just described in the page summary, by asking factual and interpretive higher order thinking questions, and continues to help the student use imagery for his/her answers. This activity should be applied to content using contextual imagery to assist with expanding oral vocabulary (Exhibit 12).
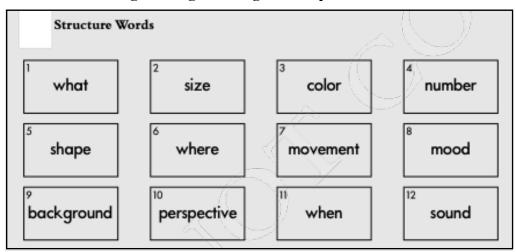
Exhibit 12. Expanding Vocabulary Example

Activity 2: Writing as Imaged Thought (Exhibit 13). Using the imagery-language connection of dual coding makes writing simple; students use picture cues on a three-by-five cards and place them next to the felt, numbering each card and reference the Structure Words for additional details. After the word summary, they place the picture cues in order and use them to write a summary. During the editing process, the student compares what they wrote to their images.

Exhibit 13. Writing as Imaged Thought Example

Taxonomy Dimension: Behavioral Support

Behavioral support addresses the extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize undesired behavior. Additional information can be found within the *NCII behavioral support course content*.

Activity 1: Nonverbal Behavior Modification Tools/Reinforcement (Exhibit 14). Every student has a bucket/jar for storing Magic Stones (or any other small objects, such as beans or tokens) to reinforce positive behavior: Take away stones when behavior needs to be redirected. Stones may be traded in for Star Cards or a prize immediately after the bucket is full, and stones should be given frequently and consistently.

Exhibit 14. Nonverbal Behavior Modification Tools/Reinforcement
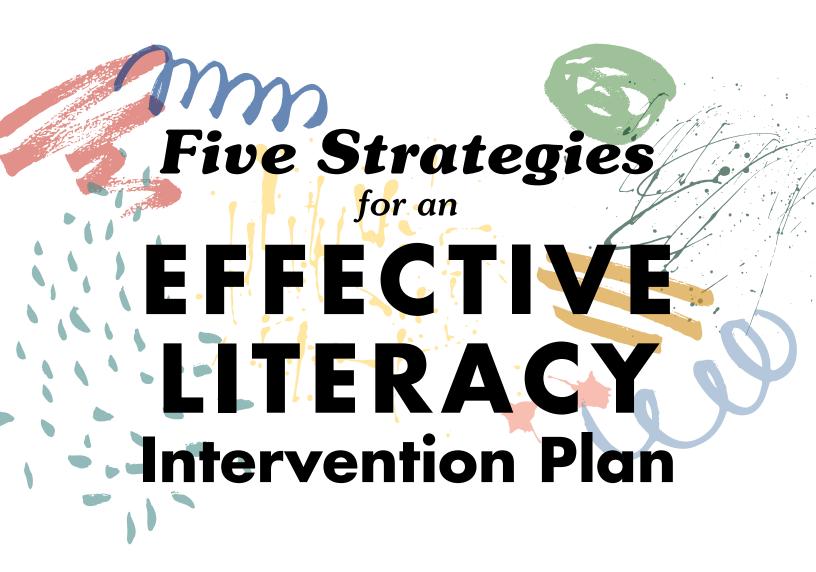
Activity 2: Magical Learning Moment Cards (Exhibit 15): On-the-spot recognition is given to a student to recognize effort and tasks done well. Cards go in the Magical Learning Moment box, and a schedule for drawing a winner is set. If possible, coordinate with the principal to make a schoolwide announcement.

Example 15. Magical Learning Moment Cards

Five Strategies
for an
EFFECTIVE LITERACY
Intervention Plan

Introduction

Since 1986, Lindamood–Bell has provided professional development for educators and collaborated with school systems to increase student achievement. As an industry leader in literacy interventions, we have helped struggling readers, including students with dyslexia, improve reading skills.

Through our partnerships, we've learned lessons and identified strategies to implement successful literacy initiatives: Our partnerships have demonstrated significant results in reading growth and achievement, maintained high-quality instruction and program fidelity, been brought to scale, and sustained over time (Sadoski & Willson, 2006; Lindamood–Bell, 2017, 2021). The following are strategies to help district and school leaders implement a comprehensive literacy initiative, including targeted interventions for struggling readers and students with dyslexia. Each strategy includes specific tips and takeaways that school leaders and teachers can begin discussing or implementing immediately.

Five Strategies for Success

1. Teach Reading Based on the Cognitive Science of Learning

Evidence-based reading research is clear on what are the essential component parts of reading (National Reading Panel Report, 2000). Reading skills consist of **phonemic awareness, phonics, word recognition and fluency, oral vocabulary, and comprehension**. And yet despite decades of research that points to these component parts, which now drive the current discussion and focus around the Science of Reading, students in the U.S. have improved very little in reading over the past 20 years. In 2019, only 35% of fourth graders read at proficiency on the NAEP, and only 34% of eighth graders were proficient (The Nation's Report Card, 2019).

In our practice at Lindamood–Bell, instruction includes not only component parts of reading, but also skills in what the cognitive sciences tell us about how the reading brain works (Sadoski & Paivio, 2001; Pribram, 1971; Stanovich & West, 1989; Ehri, 2020; Wolfe & Bowers, 1999). Reading involves sensory–cognitive processes–that is, the brain takes in sensory information at the auditory, visual and kinesthetic level and integrates those processes required for reading proficiency. ***This process–based approach to reading instruction supports and enhances strategies, methods, and content of current reading practice, including a structured literacy approach.*** Sadoski's and Paivio's Dual Coding Theory (DCT) supports this process: "Dual Coding Theory is the general theory of cognition that provides our unifying framework for literacy"(2001). As Sadoski (2006) describes further, DCT "consists of the independent activity of, or interplay between, two great mental codes: a verbal code specialized for language and a nonverbal code specialized for knowledge of the world in the form of mental images."
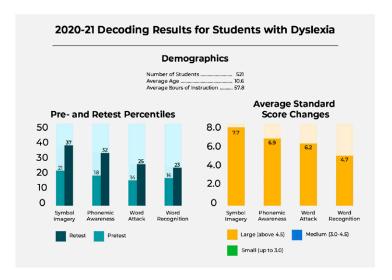
Three primary sensory–cognitive processes associated with reading are phonemic awareness, symbol imagery, and concept imagery (Lindamood, et al., 1997). Following DCT, we reference our approach as the ***Imagery–Language connection*** for reading, which integrates these processes to achieve reading fluency and comprehension. Conversely, typical structured literacy approaches predominantly focus on phonological processing, relying on lots of rules and word study to teach reading with little attention to the cognitive processes that support fluency and independence.

Phonemic Awareness: The ability to perceive and manipulate individual sounds in words. For example, in the word 'seat' there are three sounds (phonemes), all different and isolated as /s/, /ee/, and /t/.

Symbol Imagery: The ability to perceive the sounds (phonemes) and letters (graphemes) in words, and holding the phoneme-grapheme connection in visual memory. For example, creating a mental representation of the four letters that make up 'seat' including the spelling pattern 'ea' for the phoneme /ee/.

Concept Imagery: The ability to create an imaged gestalt (whole) from oral and written language, which serves as a basis for recall, comprehension, and higher order thinking. For example, visualizing the concept of the word 'seat.'

The imagery-language connection is often a critical missing piece for struggling readers. Research with the most disadvantaged readers shows that with systematic and explicit instruction in these sensory-cognitive processes, the brain does "rewire" itself in developing the processes needed for reading (Huber, et al., 2018). Evidence from this and other studies show that dyslexia is not a permanent, life sentence. A recent case study (Lindamood-Bell, 2021) from Fort Smith Public Schools in Arkansas also shows students with dyslexia can become proficient in reading skills and close the gap.

2020-21 Decoding Results for Students with Dyslexia

Demographics

Number of Students 521
Average Age 10.6
Average Hours of Instruction 57.8

Pre- and Retest Percentiles

	Symbol Imagery	Phonemic Awareness	Word Attack	Word Recognition
Retest	37	32	25	23
Pretest	21	18	14	16

Average Standard Score Changes

	Symbol Imagery	Phonemic Awareness	Word Attack	Word Recognition
	7.7	6.9	6.2	4.7

Large (above 4.5)   Medium (3.0-4.5)   Small (up to 3.0)

Tips and Takeaways

How can specialists, classroom teachers, and support staff integrate a process-based approach to reading instruction? Here are three tips:

- Bring imagery to an explicit, conscious level. Use language such as "What is the second sound/letter you see in the word 'spot?'" or "What did you visualize for the part that said, 'The huge saguaro cactus thrives in the Arizona desert by storing its own water?'" By directing students to an awareness of their meta-cognitive learning process, they can begin self-monitoring and self-correcting, on their way to independence.

- Use symbol imagery exercises to develop phonemic awareness and orthographic mapping. These strategies direct students to manipulate sounds and letters in words.
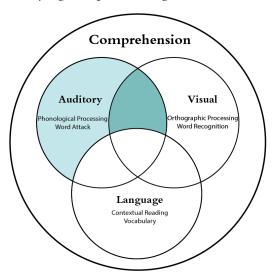
Activities include: 1) identify a specific sound/letter in a word, 2) substitute a sound/letter, 3) add or omit a sound/letter, and 4) shift sounds/letters: e.g., change 'flaps' to 'flasp.'

- Teach/reinforce new vocabulary with imagery. For example instead of asking "What is the meaning of the word photosynthesis?" instead ask "What do you picture for photosynthesis?" Then help students develop detailed imagery for the word for understanding and recall.

For free resources and samples of our instructional approach, look inside our Toolkit for Educators.

2. Provide Differentiated Instruction

While differentiation is an effective strategy in meeting all students' needs, interventions are often designed with a "one size fits all" approach. Students with poor phonemic awareness skills may receive the same scripted program and follow the same scope and sequence, or students in special education may receive the same dosage of instruction. Neither scenario is likely to provide the most effective, differentiated instruction for all students. Instead, schools should strive to pinpoint the component parts of reading where individual students need the most focus, such as identifying and prioritizing the skills in the venn diagram below:

As in the example above, some poor readers may have adequate phonemic awareness skills but limited sight word proficiency, impacting fluency and comprehension. Instructional strategies here should prioritize reinforcing word recognition skills, not spend more time on phonological awareness tasks.

Differentiated instruction is also diagnostic and responsive. This requires not only progress monitoring, but also formative assessment. Real-time formative assessment is a process that enables educators to monitor student response on a day-to-day basis, and make instructional modifications to the lesson plan that match specific students' needs. Formative assessment has been shown to produce large learning gains, especially among low performing readers (Black & Wiliam, 1998).

Through a school improvement initiative, Haskin Elementary School in Colorado (Lindamood–Bell, 2017) implemented a Turnaround/Transformation model to address chronic levels of low literacy. The district's transformation team used standardized, diagnostic tools to pinpoint instructional needs (e.g., phonemic awareness or fluency or comprehension) and then to group students accordingly. Instructors then utilized formative assessment data to adjust lesson plans based on the response and progress of each student. If necessary, students were regrouped to better match their skill development through the scope and sequence of the program. By differentiating instruction in specific skill sets, the school significantly outperformed comparison schools in the area of reading growth.

Tips and Takeaways

What does effective differentiated instruction look like? Here are three areas for consideration and discussion:

- Group students homogeneously. Are you grouping students for targeted intervention based on scheduling availability rather than instructional needs? Interventions should be designed to identify specific reading skills and create groups with similar abilities and skill development needs. This allows you to pace students along a similar progression of development, while focusing on the same target areas.

- Identify a separate weakness in comprehension. The simple view of reading is not sufficient for all learners. Many students struggle to understand what they read or to get the main idea despite adequate decoding and oral language skills. Do you have adequate assessment data to determine which students need targeted intervention in comprehension skills only? This includes reading and listening comprehension.

- Formative assessment: 1) Use student responses, especially errors, as opportunities to guide new learning and modify lesson planning. To maximize student progress, lessons should not be scripted based on a set scope and sequence. 2) Use Socratic questioning to guide students in their learning. Use differentiated questions with substantial, moderate, or light support, depending on where each student is in their level of development and knowledge. 3) Respond to the student's response by helping them analyze their response, and guide them with corrective feedback. This fosters their ability to self-monitor, leading to self-correction and independence in their learning behavior. See examples below.

> **Example 1**: A student reads the isolated word 'steam' for the word stream. Cover the word and ask "When you say 'steam,' what sound/letter do you hear/see after the 't'? Then compare their response to the stimulus to see if they can self correct.
>
> **Example 2**: A student reads a sentence as: "The salmon laid her eggs in the steam." Ask the student, "Does that make sense? What do you *picture* for steam?"

3. Ensure Interventions are High-Dosage

Along with differentiated instruction, high–dosage, intensive intervention has shown to be a critical component in remediating reading difficulty and closing literacy gaps (Sadoski & Wilson, 2006). Focusing on specific skills while increasing instruction time accelerates the

learning process, allowing students to more quickly close achievement gaps.

Targeted intervention, with increasing intensity, is part of a multi-tiered system of supports (MTSS) model. Typically, schools think of intensive intervention as Tier 2 or Tier 3 support. Since students also spend most of their time in the regular classroom environment, the role of classroom teachers (Tier 1) must also be included as part of the overall "system of supports" for students who need more instruction. This framework of intensive intervention is widely implemented to identify and support all students, whether special education or general education (St. Martin, 2020).

Intensifying instruction is one strategy, but to be effective, interventions should also focus on depth of skill development. Often, interventions try to do too much too quickly, and are not high dosage. Many supplemental or remedial interventions try to address components of a structured literacy approach all at once and whether students need attention in all areas or not. Students get a little bit of instruction in a lot of skills, but may struggle to reach levels of independence in any one area.

Another reason interventions lack intensity is the schedule. Students in special education resource rooms may only receive two or three doses of instruction per week, often for as little as 20 to 30 minutes each session. Struggling readers and students with dyslexia need sufficient instruction time. Interventions must be prioritized for daily instruction (or nearly daily) and for a minimum 45-60 minutes per day (typically Tier 2). For students with more impaired reading skills, a minimum of 90 minutes or more should be considered (Tier 3). Students need time for multiple opportunities for skill development. Repeated practice and instructional routines are critical in developing the cognitive pathways associated with the reading brain. Evidence has shown that students in special education, including those with dyslexia, can be remediated and can read with proficiency. School and district leaders can facilitate this by setting high expectations for these students and their instructors and establishing a learning environment for them to succeed.

In Pinellas County Schools, Florida, the district recognized the need for high dosage interventions for struggling readers. They created a Center for Literacy Innovation, focusing on the science of reading and remediation. Many of their students were identified with, or at risk for, dyslexia. By restructuring their learning environment with the literacy center, students were able to get the intensity they needed to improve. Students improved from the 14th to the 50th percentile in phonemic awareness, while comprehension increased from the 23rd to the 24th percentile.

Tips and Takeaways

Here are three lessons learned for increasing the intensity of instruction:

- Create multiple opportunities for practice. Scheduling and lesson plans should accommodate activities where students have repeated practice in specific skills, to increase accuracy and fluency. Watch for interventions that are limited in time or are light-touch, with few opportunities for practice.

- Schedule small-group and one-to-one intervention. Intensity can also be realized

with small group sizes (e.g., two to five students) and if necessary, with one-to-one instruction. While this may require more instructional resources in the short term, the instructional cycle may be decreased in the long term, while experiencing an acceleration of learning.

- Offer high dosage tutoring. Tutoring programs have been shown to increase reading skills (Ed Covid-19 Handbook, 2021). Tutoring also enables schools to intensify instruction for students who need more time in skill development. Innovative schools have trained their staff or hired outside tutors for after-school instruction and summer school sessions, aligned with their current intervention. Additionally, schools maximize staff resources by offering high quality training for support staff and paraprofessionals.

4. Implement Sustained, Job-Embedded Professional Development

Our work with schools includes system-wide improvement initiatives and closing achievement gaps for underperforming subgroups of students. A critical factor to address these goals involves strategic levels of ongoing professional development (PD) where staff receive initial training and ongoing support to improve the quality of instruction. Evidence shows teacher competency has a larger impact on student achievement than factors such as minority or socioeconomic status (Darling-Hammond, 1999).

Teaching reading *is* rocket science. Evidence does highlight key characteristics of PD activities that improve student learning. Teachers must have frequent opportunities to observe high-quality lessons, to co-teach with a program expert, and to receive feedback within a continuous cycle of improvement. Activities should be organized and purposeful while focusing on improving practice in the specific content and pedagogic knowledge of the program or intervention. Overall, professional development activities should include 30 or more contact hours (Guskey & Yoon, 1999).

In our levels of professional learning, districts and schools can strategically manage scheduling and resources while scaling up interventions more effectively. Level 1 workshops provide the foundation of the program steps and practice, while Levels 2 and 3 offer ongoing follow-up activities (on-demand and in-person) where staff can participate at their own pace and focus on instructional areas that match the needs of their students.

Tips and Takeaways

Consider these professional development strategies to improve instruction:

- Ensure job-embedded coaching. Plan for structured and purposeful coaching sessions with an expert in the content you are focused on. The expert coach should follow a model of "I Teach, We Teach, You Teach" during actual instruction sessions with students, where the coach gradually turns over more responsibility to the teacher as the teacher improves in their instructional skills in a new intervention. Start with a minimum of one coaching session per week during the first part of the school year, and then scale back as teachers become more autonomous, with program fidelity. Coaching can be provided in person, or virtually if content experts are offsite.

- Schedule ongoing PD activities. Through our levels of professional learning, we collaborate with schools to establish follow-up support activities so teachers become highly competent in the science behind reading instruction. These activities should be highly structured and intentional, with specific times built into the calendar to complete.

- Summer institute: Re-imagine the typical ESY summer school session as a high-quality, professional development institute. Activities can be focused around workshops, job-embedded coaching, PLCs, and advanced training sessions. The intensity and focus on one program or intervention allows staff to gain immediate, hands-on experience with guided support while students receive high-impact tutoring.

5. Develop a Shared Leadership Vision

Our experience in implementing effective literacy plans highlights the critical role of leadership, both at the district and school level. In many ways, the leadership factor underlies the effectiveness of strategies 1 through 4 above. This has been evident in school and district-wide initiatives (Sadoski & Wilson, 2006; Lindamood-Bell, 2017).

Successful plans start with engaging all stakeholders in the plan and lining out specific roles and expectations for the initiative to succeed. Stakeholders should include department heads, supervisors, principals, school board members, instructional specialists, and other key staff involved in the intervention plan. For example, will building principals be expected to monitor program fidelity and help to facilitate solutions to improve student learning? Will curriculum or staff development directors evaluate key indicators and then create opportunities for ongoing professional learning and quality instruction? How will communication flow among stakeholders to maintain focus on key objectives and implement a problem-solving process?

Another key characteristic is instructional leadership. Unfortunately, as school reformer Richard Elmore (2008) noted, "direct involvement in instruction is among the least frequent activities performed by administrators of any kind at any level…" When leadership at all levels have an understanding and skill set of the intervention content and science, they 1) set the tone (vision) that they expect the literacy initiative to be a top priority, and 2) have the ability to evaluate instructional practice and offer solutions for improvement–instructional leadership.

Finally, a shared leadership vision must establish high expectations for all students, including disadvantaged learners and students with disabilities such as dyslexia. High expectations focuses stakeholders on a commitment to quality instruction and fidelity of the intervention program.

Tips and Takeaways

Consider the following when planning for an effective literacy intervention:

- Think longer-term. Often literacy plans and PD decisions are made year to year, based on current student achievement date and funding resources. This makes it difficult to scale up and sustain initiatives over time. Instead, start with a minimum three-year plan that can be effectively monitored and managed from year to year. For example, in Year 1, start with a smaller group of staff to "pilot" the intervention,

and focus resources and support on them to ensure fidelity to the program. In Year 2, add more staff, and use your experienced Year 1 staff as mentors and facilitators to help expand the program. Evaluate your progress and needs and make necessary adjustments for Year 3.

- Create a "Leadership Institute." Foster a system-wide culture of instructional leadership by requiring key district leaders and building principals to participate in program workshops and other literacy PD activities. Create a rubric for instructional "Look Fors" so leaders can better monitor the effectiveness of the intervention plan.

- Collaborate. Literacy initiatives, staff development, and programs often remain siloed in specific departments or areas of expertise, with little or no collaboration. With a shared vision of leadership, collaboration among all stakeholders allows schools to maximize resources and work more efficiently. Encourage regular updates and communication between regular education and special education staff members, to better identify and meet student needs and to improve instructional quality.

Conclusion

These five strategies provide an evidence-based framework for improving literacy skills for struggling readers. Successful literacy interventions can be brought to scale, sustained with fidelity, and benefit all students regardless of background or ability level.

To learn more about Lindamood-Bell case studies in schools, visit https://lindamoodbell.com/school–results.

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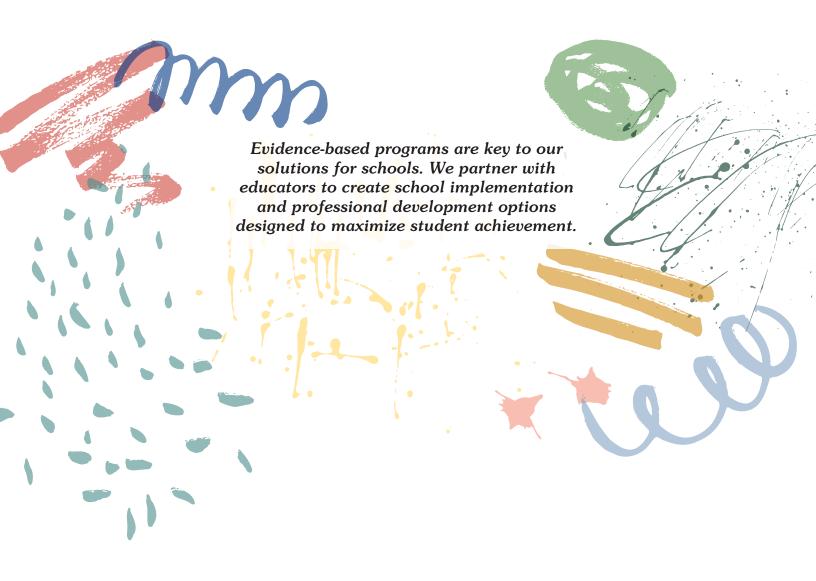
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Evidence-based programs are key to our solutions for schools. We partner with educators to create school implementation and professional development options designed to maximize student achievement.

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