Lexia®

SCIENCE OF READING LEADERSHIP SUMMIT

EDUCATIONAL INSIGHT

Reading by Design: Science and Systems Support All Readers—Especially Students With Dyslexia

OBJECTIVE

Discover how understanding dyslexia through the lens of the science of reading empowers educational leaders to remove systemic barriers, ensure equitable identification and instruction, and advance literacy success for all students.

GUIDING QUESTION

As you read, determine how to improve the accurate and equitable identification of students with dyslexia, strengthen structured literacy and science of reading-aligned practices, and ensure ongoing progress monitoring and data-informed support for all readers.

ACTIVITY

- Independently read the article and take notes using the guiding questions.
- With your group, share your "light bulb" moments. Discuss the following questions:
  - What's one key takeaway or summary of the article that stood out to you?
  - What's a new idea or approach you learned that could benefit your district?
  - What's something you can take back and share with your teams or apply in your own context?
- Work with your group to complete a three-sentence summary of your discussion. Be sure that each team member has a copy of the summary.

EDUCATION INSIGHT

Reading by Design

Science and Systems Support All Readers—Especially Students With Dyslexia

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ALL FOR LITERACY™

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Introduction

It is estimated that as many as 1 in 5 kids has dyslexia, including 80% to 90% of students with learning differences. In 2022–2023, 32% of students were diagnosed with a specific learning disability, which could include dyslexia. Another 19% received special education services for a speech or language impairment. Even when students are diagnosed with dyslexia, districts may not have the teachers, staff, or budget to support them.

Some states and districts have followed arbitrary policies, such as student isolation and retention, that do not help struggling readers with undiagnosed dyslexia. For eight years, the Texas Education Agency imposed an arbitrary cap on special education eligibility at 8.5% of students when the national average at the time was 12%, thus under-identifying and under-serving students with dyslexia.

Old ideas and policies, biased misinformation, lack of explicit literacy training, and lack of funding for special education all contribute to students being under-identified with dyslexia. However, a University of Minnesota study found that 80% to 85% of children who qualify for special education can achieve the same academic outcomes as on-grade-level readers if given the correct instruction.

> Dyslexia is not about seeing letters or words backwards. Dyslexia is a specific learning disability that is neurobiological in origin. It is present at birth and unrelated to intelligence. Students with dyslexia have difficulties processing, storing, retrieving, or producing information. They struggle to translate printed words on a page into their spoken equivalents, despite having adequate listening comprehension skills. Students' cognitive resources are so focused on deciphering words, they are unable to focus on meaning. This common learning disability affects as much as 15% to 20% of the population.

Federal law requires public schools to identify, refer, and evaluate students who are suspected of having a disability as early as possible, including students who may have dyslexia. Identifying children with disabilities ensures they have their individualized and specialized needs met in the least restrictive environment possible. For more information about the Child Find Process, please visit the IDEA Child Find website and your state or district website.

Complex Systemic Barriers

Over the past several years, 40+ states have passed laws or policies requiring schools to adopt evidence-based methods for teaching reading. In response, school and district educators have worked hard to implement Structured Literacy programs based on the science of reading to help close reading gaps. To implement Structured Literacy programs with fidelity, districts are still working on updating local policies, boosting teacher literacy training, and aligning their instructional budgets to ensure they're able to meet the literacy needs of all children.

Here are four common district challenges:

1. **Inaccurate identification:** Students of color and students from families with low income are most likely to be misidentified or misdiagnosed with a disability. According to recent data from the Office of Special Education Programs, students in some groups tend to fall within specific disability categories at higher rates. For example, Black students with disabilities are more likely to be identified with an intellectual disability or emotional disturbance than their peers and more likely to receive a disciplinary removal than all students with disabilities. Meanwhile, White students with disabilities are more likely to learn in a general education classroom 80% or more of the day and less likely to be identified with specific learning disability or intellectual disability than all students with disabilities. Accurately diagnosing learning disabilities ensures that all students, regardless of their race or background, receive the support they need to succeed academically and socially.

2. **Outdated and disproven methods of literacy instruction:** Until recently, most states favored the three-cueing strategy upheld by the balanced literacy model. At one time, three-cueing was the most favored method in California. Preservice teachers were taught three-cueing and graduated from California institutions without a foundation in Structured Literacy. However, the state has since taken steps to address literacy instruction. In 2023–2024, California included funding for literacy coaches, reading screening assessments, and creating a "literacy roadmap." In addition, teacher-preparation programs must demonstrate that they're preparing teachers to deliver "foundational reading skills instruction," including for Emergent Bilingual students, and the state's elementary and special education teacher candidates will be required to pass a new credentialing test on reading and literacy starting in 2025.

   Even if the diagnostics improve, most public school teachers in California and other states have not been adequately trained to teach students how to read. Although more than half of the states have passed laws supporting a Structured Literacy approach, only 33% of fourth-grade students scored at or above proficient on their NAEP Reading Assessment in 2022.

3 **Misidentification of dyslexia for Emergent Bilinguals:** The relationship between Emergent Bilinguals and special education has long been complicated. Emergent Bilinguals are both over-identified and under-identified as students with dyslexia who need special education services. While these students may benefit from instruction that links English language learning with their first language, accommodations that are part of special education services don't adequately address the literacy needs of Emergent Bilingual learners.

4 **Unfinished learning:** Students experience learning gaps for several reasons, including absenteeism, moving from one district to another, and inefficient teaching. In 2022–2023, 26% of American students were chronically absent, compared to 13% in 2019–2020. Research shows that school absences affect grades and performance on standardized tests.

As more state legislatures require research-based methods such as the science of reading, students with and without dyslexia will become better readers. Struggling readers, including those with dyslexia, are overwhelmingly capable of learning to read. They require systematic instruction to build fluency and systems' leaders to have the information they need to transform outcomes for students.

What Is the Three-Cueing Model and Why Is It Losing Support?

With three-cueing, first used in the 1960s, students are taught they should first focus on determining the meaning of the text when they're given prompts, such as "What makes sense?" and "Can you think of another word that would work in this sentence?" Students are essentially encouraged to guess at the word. Neuroscience has revealed this is not the way children learn to read; in fact, reading is accomplished with letter-by-letter processing of the word.

According to Dr. Mark Seidenberg, three-cueing is a way to teach children to identify words by combining multiple cues. "Cues could include the pictures in a book, words in the sentence context, knowledge about the topic, the first letter or two of a word, and others," he said. "The problem with this approach is that it is a slow, unreliable way to read words and an inefficient way to develop word recognition skills."

Sometimes the three-cueing system is used as a substitute for phonics when the words are actually decodable. Several bodies of research have proven that approaches to reading development based on three-cueing are false. Some states have banned three-cueing because it is ineffective in teaching students how to read.

Continuing Challenges Addressing Literacy Gaps

1 **Identifying dyslexia:** Identifying and accurately diagnosing dyslexia is challenging. It can be particularly challenging to determine whether a student has a learning disability or was not explicitly taught how to read.

Students with dyslexia may also experience difficulties with attention, organization, and executive function, such as:

- Beginning and completing homework assignments
- Maintaining focus on tasks
- Keeping track of supplies and materials
- Confusing concepts related to time and space or left and right directions
- Memorizing math facts
- Reading/understanding word problems
- Handwriting
- Learning foreign languages or English as a second language
- Social skills such as making and keeping friends

Due to educator recruitment and retention challenges, there are fewer literacy specialists and special education teachers. Schools are transitioning from balanced literacy and its three-cueing model to the science of reading, and both administrators and educators need help to implement this new approach with fidelity.

Regardless of the specific issue, science of reading-based instruction can close the gaps and help students achieve literacy through systematic, explicit instruction.

2 **Expanding educational equity:** Opportunity gaps increase when students' needs are unmet, unaddressed, or addressed with unhelpful systems and programs. What began as a narrow skill gap can grow to encompass a significant grade-level discrepancy and then further deteriorate into lost confidence, engagement, and esteem if not addressed appropriately. This results from an educational system failing the student—not the student's failure. Addressing the needs of the whole child with culturally responsive pedagogy, an asset-based orientation, and digital support closes these opportunity gaps.

Increasing educational equity is made possible through the instructional core—the inextricable link among teachers, students, and content. This expanded understanding of educational equity is based on Harvard researchers' work with educators. If educators are serious about expanding educational equity, all three elements must be addressed simultaneously in recognition that they are interdependent pillars of education.

3 **Other learning disabilities:** Students with dyslexia often have other learning differences. Many of these students have developmental language disorder (DLD) or difficulty understanding language. DLD is primarily a hidden disability, although it impacts approximately two children in every classroom. This language disorder commonly occurs with ADHD and dyslexia, and some researchers believe there is also some overlap between DLD and autism. Dyslexia affects 20% of the population and represents 80% to 90% of all those with learning disabilities.

Students of color, and Black students in particular, are twice as likely as their white peers to be labeled with an intellectual or emotional disorder. This misidentification of disability can have a lifelong impact on students and has been attributed to factors such as cultural bias, lower expectations, and test bias.

Although reading instruction based on the science of reading can help students regardless of their disability, label, or perception, it may not be enough for students with dyslexia; these learners may need additional, more intensive support beyond explicit classroom instruction.

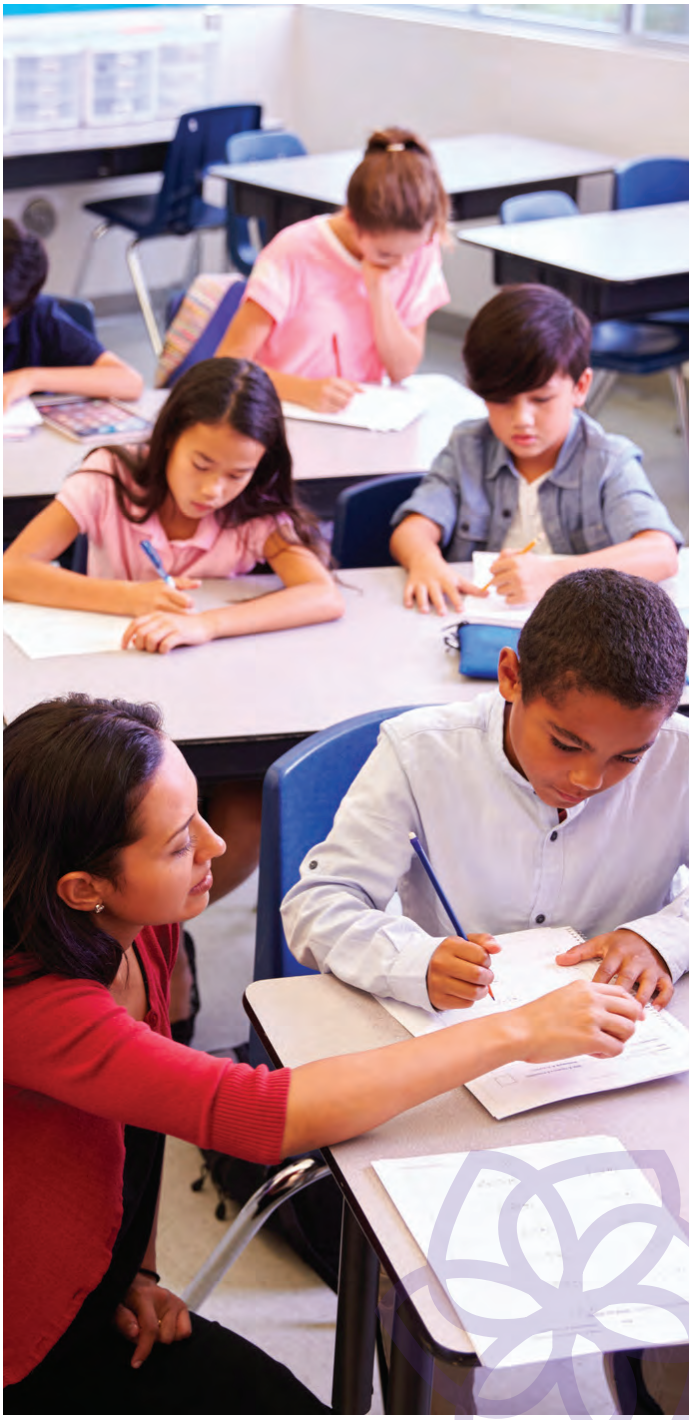
Changing how educators teach reading in this country will almost certainly reduce the number of students with individualized education programs (IEPs) since up to 95% of children can read with explicit instruction.

How Schools Can Promote Reading Success for Students With Dyslexia

To help students with dyslexia, administrators must ensure their teachers develop a deep understanding of the body of research on the science of reading. Multiple decades of research have repeatedly demonstrated that instruction based on this body of evidence can effectively teach most children how to read.

Some best practices include:

- ✓ Implement science of reading-based professional learning and instruction.
- ✓ Empower teachers. Most teachers haven't received training and can't be expected to know how to teach this way without ongoing professional learning that trains them in science of reading methodologies and helps them understand strategies to use for different academic outcomes.
- ✓ Train educators to identify students with dyslexia and other learning disabilities using proven, fair, and unbiased methods.
- ✓ Provide teachers with high-quality learning materials based on the science of reading to use with their students.
- ✓ Monitor student progress. Literacy specialists and teachers must be able to guide instruction with real-time data.
- ✓ Systematically review the process of identifying and responding to the needs of every student. Improving educational equity at every school and district is essential.



Structured Literacy Has the Promise of Success

Structured Literacy explicitly teaches systematic word identification and decoding strategies. These strategies benefit most students and are critical for those with dyslexia. Administrators must ensure their teachers acquire the professional learning needed to implement instruction rooted in Structured Literacy.

Structured Literacy instruction must be:

Systematic and Cumulative	Explicit	Diagnostic
Material follows the logical order of language, with each step based on concepts previously learned	Direct teaching of concepts with continuous teacher-student interaction	Individualized instruction with continuous assessment

Students with learning disabilities greatly benefit from explicit, step-by-step instructions for every part of the literacy-acquisition process—especially reading comprehension. Teachers who embrace explicit instruction state precisely what is expected, define academic terms, model learning, provide examples, and include step-by-step directions for students to follow.

While some students may need additional intensive instruction, the benefit of Structured Literacy is that all students—including students with dyslexia—can learn how to read with explicit instruction. By supporting effective reading instruction and ensuring teachers receive the professional learning needed, administrators can empower teachers to help more students become successful readers.

How Lexia® Can Help Students With Dyslexia

Lexia's portfolio of products based on the science of reading includes Lexia® LETRS® and Lexia Aspire® Professional Learning—professional learning that upgrades teachers' skills in teaching reading—along with the proven, high-quality curricula products Lexia® Core5® Reading and Lexia® PowerUp Literacy®. Lexia English Language Development™ supports Emerging Bilinguals' language acquisition through academic conversations.

> "Our dyslexia students continue to transform challenges into successes with the combination of Core5 and prescriptive lessons. The best feeling as an educator is being able to set achievable goals and celebrating their academic progress."
>
> — Veronica Balli, Teacher, Remedial Reading, Victor Fields Elementary School, Texas

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