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**Hearthreaking Data:** 

Are Too Often Missed

By Timothy N. Odegard, Ph.D., and Emily A. Farris, Ph.D

Our Most Vulnerable Students

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Nearly every child is capable of learning to read. However, far too many children are not learning to read. Various reasons contribute to their difficulties, including dyslexia, which affects 5-17% of schoolchildren. Fortunately, we know how to help students who struggle to learn to read. Structured Literacy instruction (see Figure 1 for associated instructional targets) can benefit all students, and it is essential for the most vulnerable learners. Unfortunately, few children receive this instruction with the intensity and duration needed from teachers trained to deliver it with

Parents and educators' concerns about poor quality reading instruction—especially for children with dyslexia—have triggered some form of dyslexia legislation in all but a few states throughout the U.S. These laws have been enacted in hopes of creating a wide-ranging awareness of the potential and promise of the science of reading. The realization of that promise could be the key to unlocking the human right of literacy for every child.

Yet, we hear from schools that these new laws are overwhelming. Educators report a need for more support as they struggle to understand how to implement these laws.

The results of a study just published in the Journal of Learning Disabilities by our research team provide evidence that these concerns about implementation are justified. Schools are struggling to identify children with dyslexia and to provide instruction effective for teaching them and their classmates to read.

## Findings: Children Are Slipping Between the Cracks

For this study, we examined reading scores from a universal screener administered to a little over 8,000 2nd-grade students. These data were shared through a partnership between the Tennessee Center for the Study and Treatment of Dyslexia at Middle Tennessee State University and the Arkansas Department of Education. In our sample, school-based teams had identified about

10% of these 2<sup>nd</sup>-grade students as struggling readers due to dyslexia. That value falls within the prevalence rates agreed upon by most researchers. This finding suggests that identification procedures put in place in response to state law are having their intended effect.

However, the results of the study also gave us a reason for concern. In addition to the 10% of students identified with dyslexia by their schoolbased teams, an additional 27% exhibited deficits in spelling and reading fluency

Scores below expectations in both reading and spelling are indicators of dyslexia. But most of the students identified as struggling to read and spell were not identified as having dyslexia. Why is there a discrepancy between deficits identified by a universal screener and the identification rate of dyslexia by school-based teams?

This question prompted us to wonder what predicts which children who struggle to read and spell will not be identified with dyslexia. Their performance on the universal screener indicated they were not meeting expectations in reading and spelling. Yet, they had not been identified with dyslexia by their school-based teams. Which factors might contribute to this? The data reveal some troubling trends.

The likelihood of missing a specific student who struggles with reading and spelling increased when a larger percentage of students in a child's school performed below expectations on measures of both reading and spelling. What does that result mean? It suggests that when more students in a school struggle to read and spell, it is more difficult to find those students who struggle to read and spell due to dyslexia. In short, when most of the other kids in your school struggle to read and spell, not being able to read and spell does not make you stand out. Your reading and spelling deficits are not viewed as exceptional or unexpected. We also observed that black



and Hispanic children were less likely to be identified with dyslexia. In fact, black and Hispanic students were only half as likely as white students to be identified with dyslexia by their schools-even when the universal screener had documented their reading and spelling deficits. Also, schools with a larger percentage of racial and ethnic minority students and schools with a higher percentage of students living in poverty identified fewer students with dyslexia.

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These findings are sobering. They highlight the fact that the challenges we face as a society are more significant than addressing the needs of 5-17% of children strugaling to read due to dyslexia. Our data suggest that a primary reason schools struggle to identify and address the needs of children with dyslexia is a lack of quality reading instruction for all children. Universal screening results for the 2<sup>nd</sup>-graders in our study demonstrated that 37% of the sample were not meeting expectations in reading and spelling-far more than even the largest estimated prevalence rate of dyslexia (i.e., 17%). Simple logic suggests that the majority of these children (i.e., 20%)

are not struggling due to a neurobiological difference in how they process language (i.e., dyslexia). Instead, they are struggling due to some other factor. One of the most likely candidates is ineffective reading and spelling instruction.

Moreover, most children in the study presented with a mixed profile of literacy deficits. As depicted in Table 1 (page 15), they struggled with some aspect of print skills (reading or spelling) and an area of comprehension (vocabulary or reading comprehension). That means these students need more than phonics instruction—and Structured Literacy includes much more than phonics instruction. (An explicit approach to teaching exemplifies structured literacy. Perspectives on Language and Literacy. 46(1), 21-23.)

# The Challenge: Quality Reading Instruction for Every Child

These data underscore the challenge at hand: providing quality reading instruction for every child in every classroom. This instruction must be aligned with all the instructional targets specified as part of Structured Literacy (see Figure 1, on page 15, for these instructional targets). We cannot help the few students who struggle due to dyslexia without

addressing the needs of the many students in our schools who do not receive quality reading instruction.

The obstacles to translating research into practice are vast. The realities highlighted by these findings can lead to feelings of defeat or a sense of hopelessness. However, we already have the knowledge we need to implement quality reading instruction. What remains is putting the necessary infrastructure in place to make this instruction a reality for all children.

# How do we use this data to keep moving forward?

The findings reinforce a need to ensure that systems are in place to identify and address the needs of all children, especially those from vulnerable populations. These populations include children with dyslexia, racial and ethnic minorities. children of color, and communities in poverty. Our results add to the overwhelming evidence that we must improve reading instruction for all students. Explicit and systematic instruction aligned to the consensus of scientific knowledge that has emerged on reading and spelling instruction is essential. This instruction benefits all students and is necessary for children with dyslexia. The provision of high quality comprehensive Structured

# Much Work Left to Be Done: Not Simple, Not Easy

There are no simple answers—no one-size-fits-all plan to meet the challenges highlighted by these data. Addressing the needs of teachers by supporting them with continued targeted training is a must. Providing instruction that aligns with methods that have proven to be effective is also necessary. However, the realties highlighted by this study and an overwhelming amount of data from other studies demonstrate social inequities resulting from limited educational opportunities and outcomes linked to race, ethnicity, and poverty. This nuanced and complex societal problem must be addressed with systemic changes that go well beyond the walls of the schoolhouse because schools are part of communities, and communities make up the fabric of society.

We encourage you to consider these complexities and to learn more about the needs of diverse learners as you read the **Summer 2020 issue of Perspectives on Language and Literacy.**Edited by Dr. Nicole Patton Terry, this issue focuses on diverse learners and their needs. It provides a point of reference for appreciating just how nuanced this topic is. The authors give a resounding call to action.

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Literacy instruction, delivered by well-trained teachers, will lead to improved reading and spelling abilities for all students.

## Awareness Is Not Enough

There is growing agreement that awareness of what and how to teach is only part of the solution. Awareness alone does not solve the overarching issue. Instead, addressing the real needs of schools and communities is central to meeting the challenge.

Schools need trained educators with deep knowledge of what to teach and how to teach it. Educators need materials and support for delivering instruction. Administrators need knowledge of the science of reading so they will be aware of what they should see when observing teachers—and so they will be able to support the efforts of teachers in their schools. Schools and educators need actionable data to help identify and make adjustments, as required, for the reading and writing growth of all students. Also,

families and communities need the resources and support to ensure that their children will thrive.

In short, we need to help everyone with all we've got. Because the time is now, and the future can't wait. And the children are our future.

Note: The findings summarized in this article were reported in a study published in the Journal of Learning Disabilities (see below).

### REFERENCES

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Table 1. Percentage of Second Grade Students Below Benchmark Across Academic Areas Related to Reading

### School Based Classification

Reading Deficit Profile	None	Dyslexia	SLD	DYS & SLD
Dyslexia	14%	11%	6%	0%
Comprehension	8%	3%	1%	1%
Mixed Type	39%	81%	92%	98%
Total from All Profiles Below Benchmark	61%	95%	99%	99%

Figure 1. Instructional Targets for Structured Literacy

Phonological Structure and Phonemes		The speech sounds that make up words and larger phrases and sentences
Sound - Symbol Correspondences		Letter Knowledge, speech sounds and thier corresponding letters, and how letters combine to form words
Syllables	<	Larger word units organized around vowel sounds
Morphological Structure and Morphemes		Meaningful word parts that can stand on their own or be added to a word
Grammatical and Text Structure		How words are put together into sentences and larger text structures
Word Meanings		Word meanings, interpretation of phrases and sentences, and understanding text structure

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