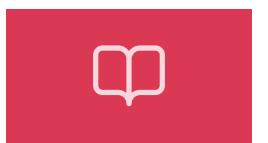
## Dyslexia toolkit













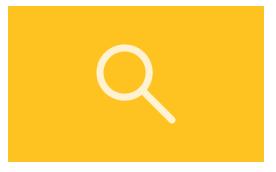












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### What is dyslexia?

Despite variations in terminology, most professionals consider dyslexia to be synonymous with the term reading disability. However, with the resurgence of the term dyslexia has come a heightened awareness of its neurobiological origins that manifest as reading difficulty. The definition of dyslexia developed by the International Dyslexia Association (IDA) and commonly adopted by many states is:

"...a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities."

(International Dyslexia Association, 2002)

These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.









### Dyslexia: What we know

### What do students at risk for dyslexia struggle with?

According to the IDA, dyslexia signs and symptoms become more apparent once a child is enrolled in school. They include the following:

- Delay in learning tasks such as tying shoes, telling time
- Difficulty expressing self
- Inattentiveness, distractibility
- Inability to follow directions
- Left-right confusion
- Difficulty learning alphabet, times tables, words of songs
- Difficulty learning rhymes
- Poor playground skills
- Difficulty learning to read
- Mixing order of letters or numbers when writing
- Reversing letters or numbers

### Research over the past few decades has established the most effective interventions for dyslexia and other difficulties in learning to read.

According to the National Reading Panel (2000), these interventions include explicit instruction in the following:

- Phonemic awareness
- Phonics
- Spelling
- Fluency
- Vocabulary

Here are a few additional findings about reading trajectories and the importance of early and intensive intervention:

### Reading trajectories

These are established early in a student's academic career and are stable across time (Good, Simmons, & Kame'enui, 2001; Morgan et al., 2016; Shaywitz, Escobar, Shaywitz, Fletcher, & Makuch, 1992).

#### Intensive intervention

Without early, intensive intervention, struggling readers do not catch up to their averageperforming peers. In fact, the gap between good and poor widens over time (Adams, 1990; Good et al., 2001; National Research Council, 1998; Stanovich, 1986).

### Early intervention

The later the onset of intervention, the poorer the odds that struggling readers will become proficient readers (Torgesen, 2000, 2001). response to intervention (RTI) and multi-tiered systems of support (MTSS) are built on research of prevention and early intervention. They are designed to help educators implement strong literacy systems. The screening and progress-monitoring data they provide enable educators to design instruction and intervention that prevent difficulty and close skill gaps for students.

### Dyslexia: Fact vs. fiction

We know more about dyslexia than ever before, but there are still many misconceptions and myths around this learning difference. To help educators better identify dyslexia, it's important to understand what it is, and also what it is not. Below is a table to quiz yourself on some prevalent facts (and fictions) about dyslexia.



### True or false?

Dyslexia is a visual problem. Its hallmark symptom is reversing letters (and numbers), as in "b" versus "d."

### **False**

Dyslexia is primarily an issue of phonological processing, or the ability to analyze speech or spoken language. Students with dyslexia might have difficulty with reading because they struggle to match letters with the sounds those letters make.

It is possible to identify students with signs of dyslexia even before they learn to read.

#### True

Some clues for and signs of dyslexia may emerge even before children start school. According to the International Dyslexia Association (IDA), it is not only possible but crucial to identify potential reading problems in students early, rather than waiting for them to fail. IDA stresses the importance of early identification of reading difficulties to provide students the support they need, close gaps, and prevent further difficulty.

Students with dyslexia will never be able to read on grade level.

#### **False**

Students with dyslexia may have difficulty with fluency and other reading skills, but these students can certainly succeed at reading—and across academic subjects—with early intervention, targeted supports, and a flexible curriculum.





### True or false?

Students with dyslexia just need more time to learn to read.

#### **False**

It may take students with dyslexia more time to learn to read, but this time must be spent in high-quality, research-based instruction. In fact, a recent study at the University of Washington showed that only eight weeks of specialized instruction strengthened neural circuitry—and improved reading performance.

Because people with dyslexia read more slowly, they also think more slowly.

### **False**

Dyslexia has nothing to do with a student's ability to think fast or creatively. It also has nothing to do with intelligence. Dyslexia can affect students who are struggling, performing on grade level, more advanced, and anywhere in between.

Students with dyslexia can succeed using the same texts and curricula as their classmates.

#### True

With proper differentiated supports for those with dyslexia (or showing signs of it), everyone in your class can share the same materials—and develop into a well-read learning community.

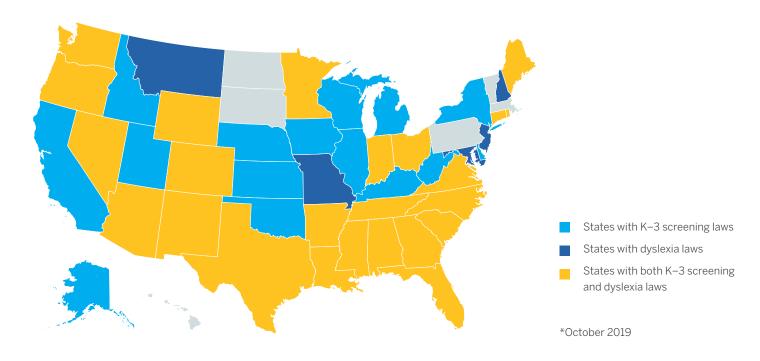
### Understanding dyslexia legislation

Recent advocacy efforts to increase the awareness of and protections for those with dyslexia and other reading difficulties have resulted in major shifts in state-level educational legislation. According to the National Center on Improving Literacy, 48 states have passed legislation addressing dyslexia in public schools. There are 38 states with dyslexia-specific screening laws, most of which have passed legislation within the last five years (Youman & Mather, 2018).

Despite some variation from state to state, common themes in recent dyslexia legislation include an increased emphasis on intervention and screening procedures, the adoption of multi-tiered systems of support (MTSS), the use of explicit instruction, and changes to teacher preparation and training (Gearin, Turtura, Kame'enui, Nelson, & Fien, 2018).

States with K-3 universal screening laws are highlighted in light blue. States with both K-3 universal screening and dyslexia laws are highlighted in yellow.

Universal screening laws are aimed at putting resources in places to identify students who are at risk for future academic difficulties, a key component of prevention-oriented approaches in early education. Screening assessments in education work much like measuring blood pressure during a doctor's visit to screen for heart disease. Effective screening assessments are typically administered at routine intervals, and can accurately predict students' future performance given only core instruction, allowing educators to intervene with confidence and provide support early before significant academic deficits including dyslexia—develop. Reducing the prevalence of dyslexia symptoms requires targeted intervention, ideally as early as possible (Shaywitz, Escobar, Shaywitz, Fletcher, & Makuch, 1992).





Screening for reading difficulties requires multiple measures depending on where readers are in their development. Many states reflect this in their screening requirements, particularly those with dyslexia-specific laws. For example, Alabama requires that kindergarten screening includes measures of:

- Letter naming skills.
- Letter sound skills.
- Phoneme segmentation skills.
- Nonsense word fluency skills.

In grades 1 and 2, Alabama requires that screening include:

- Accuracy of word reading.
- Spelling skills.
- Phonemic decoding efficiency skills.
- Sight word reading efficiency.

Other states have similar requirements. Responding to these demands for dyslexia screening has left many districts and schools uncertain as to what distinguishes dyslexia screening procedures from other screening systems already in place and whether their existing reading assessments adequately meet all the testing requirements in their state.

We strongly recommend that educators implement their respective dyslexia screening requirements by working within their existing systems of universal screening and instructional support. Under this approach, educators can avoid creating a separate delivery system for students at risk for dyslexia and duplication of efforts. Such an approach is aligned with research and best practices.

### Groups driving change in dyslexia

### **Decoding Dyslexia**

Decoding Dyslexia is a national network of grassroots parent-led groups across the country who are organized around the issue of equity and concerned about the limited access to educational opportunities for all students, including those at risk for dyslexia in the public education system. Through its 50 state chapters, these tireless parent leaders work to raise dyslexia awareness, remediate and support students with dyslexia, inform policy-makers on best practices to identify at-risk students, advocate for the drafting and passage of state policy related to these issues, and empower families to become staunch supporters for equity for all children.

#### IDA

The International Dyslexia Association (IDA) is a non-profit education and advocacy organization devoted to issues surrounding dyslexia. Serving individuals with dyslexia, their families, and professionals in the field, the IDA provides information about dyslexia on its website (https://dyslexiaida. org/), publishes a peer-reviewed scientific journal called Annals of Dyslexia, and provides referral services to individuals and professionals who use the federal legislative systems to advocate for individuals with dyslexia.

### **University of Oregon**

The UO Center on Teaching and Learning—a UO College of Education research and outreach center that develops educational interventions and assessment tools developed DIBELS® (Dynamic Indicators of Basic Early Literacy Skills). DIBELS is a research-backed instrument for evaluating reading in kindergarten through eighthgrade classrooms. In developing DIBELS 8th Edition (DIBELS 8th Edition; University of Oregon, 2018), the University of Oregon made significant efforts to ensure that the measures meet state-level dyslexia screening requirements and thus help maximize testing efficiencies for schools.

### **National Center on Improving Literacy**

The National Center on Improving Literacy (NCIL) is a partnership among literacy experts, university researchers, and technical assistance providers, with funding from the United States Department of Education. Their mission is to increase access to, and use of, evidence-based approaches to screen, identify, and teach students with literacy-related disabilities, including dyslexia.

### Supporting students with dyslexia: What can you do?

Legislative initiative	Screening for dyslexia	Dyslexia training for teachers and reading specialists	Eligibility for accommodations and services for students with dyslexia
What can educators do?	<ol> <li>Become involved in implementing or improving universal screening programs for dyslexia by reminding administrators about specific laws.</li> <li>Help your school share information with parents regarding dyslexia screening results.</li> <li>If you suspect a student has dyslexia, ensure that common cognitive and linguistic skills associated with dyslexia are assessed (e.g., phonological awareness, rapid automatized naming).</li> <li>If you suspect your student has dyslexia, request that common reading and writing skills associated with dyslexia are assessed (e.g., basic reading skills [phonics and sight word identification], spelling, reading rate).</li> </ol>	<ol> <li>Advocate for the appointment of a specific person in charge of dyslexia training.</li> <li>Request specific teacher training (for all special education and reading teachers) that includes structured literacy programs (e.g., explicit, systematic reading instruction; phonics instruction; etc.). Request dyslexia awareness training for all K-12 teachers.</li> <li>Help the school develop a system for implementing daily, systematic instruction, delivered by teachers who have adequate training and experience.</li> </ol>	<ol> <li>Become involved in the response to intervention, multi-tiered system of support, or a similar system at your school. Ensure that the accommodations and services that are provided are appropriate for students with dyslexia.</li> <li>Help colleagues become familiar with how to implement accommodations that help students with dyslexia.</li> <li>Collaborate with colleagues to evaluate the effectiveness of accommodations and services being provided to students with dyslexia.</li> </ol>

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### Classroom instruction for students with dyslexia

- 1. Become familiar with differentiated instruction strategies (e.g., use of centers during instruction).
- 2. Learn and help colleagues learn about specific reading programs designed to help students with dyslexia (e.g., structured literacy programs).
- 3. Explain the characteristics of dyslexia to all students to help develop empathy and understanding of this problem.

### Dyslexia handbook

- 1. Request that your state or district develop a dyslexia handbook to guide teachers, and offer other states' handbooks as a reference.
- 2. If your state has a dyslexia handbook, help schools follow its guidelines. If appropriate, develop shorter pamphlets for both parents and teachers that encapsulate the most important ideas.

### Dyslexia awareness

1. Consult with fellow educational professionals in your school(s) to hold events and encourage discussions about dyslexia during October (National Dyslexia Month).

### To date, some common themes in dyslexia laws include:

- Dyslexia awareness, including clearly defining dyslexia.
- Universal screening for dyslexia risk (e.g., pilots, statewide requirements, etc.), including reporting requirements.
- Teacher training.
- Provision of interventions and accommodations.
- Overall rights for individuals with dyslexia (e.g., establishing state task forces to study educational issues/needs).









### Given the importance of early intervention, how can educators screen for dyslexia risk?

The scope of assessments used in reading education has become increasingly diverse in recent years, due in part to innovations made in assessment research and the increasing emphasis on early intervention to prevent students' academic difficulties. In particular, curriculum-based measures (CBMs), sometimes known as General Outcomes Measures (GOM), are popular due to their ability to both identify students at risk for reading difficulties and monitor student progress and response to instruction. A key characteristic of CBM measures is their practical utility: They are typically brief and easy to administer, score, and interpret (Glover & Albers, 2007). Because screening assessments must be given routinely to all students in a school, the efficiency and technically sound nature of CBMs make them ideal for universal screening. Indeed, the majority of states with dyslexia screening requirements have approved the use of CBMs either for screening in specific areas or for dyslexia screening more broadly, and 17 specifically mention the use of DIBELS in their screening guidelines.

Independent of the type of assessment schools choose to use, most states require that dyslexia screening encompass a number of critical skills shown to underlie dyslexia risk:

### Phonological awareness

The ability to recognize and manipulate the sound structure of language

### Rapid automatized naming

The ability to quickly retrieve information from phonological memory

### Alphabetic principle

The ability to associate letters with sounds and to blend those sounds into words

### Word reading

The ability to fluently and accurately read words using sound-symbol correspondences and sight word recognition

Dyslexia risk refers to the finding that a child's skills indicate potential difficulty in learning to read and thus the need for support in learning.

A child's need for intervention supports to prevent future reading difficulty does not indicate a definitive diagnosis of dyslexia.

Assessment data in each of the areas listed can provide unique information about a student's reading development, potential risk for dyslexia, and areas in need of support. That is why schools should select a comprehensive screening battery in the early grades to ensure students with poor performance in any of these skills (particularly productive skills) are properly identified for reading risk and intervention.



### How mCLASS helps you identify and support at-risk students

### DIBELS 8th Edition subtests for dyslexia

DIBELS 8th Edition was developed by the University of Oregon in 2018, with the primary focus of ensuring that the measures are able to meet state-level dyslexia screening requirements, helping maximize testing efficiencies for schools.

DIBELS 8th Edition introduces Word Reading Fluency (WRF), a measure of word reading ability, and includes revised versions of the Letter Naming Fluency (LNF), Phonemic Segmentation Fluency (PSF), and Nonsense Word Fluency (NWF) subtests to improve their ability to screen for deficits commonly associated with dyslexia risk, such as phonological awareness, rapid naming ability, and alphabetic principle.

The table on the right shows the recommended uses for DIBELS 8th Edition subtests related to screening for dyslexia risk. With the exception of NWF (which aligns to many), each DIBELS subtest corresponds to a specific skill related to dyslexia risk. We recommend that LNF and PSF be used as primary screening tools for dyslexia risk from the middle of kindergarten through the beginning of grade 1. Beyond the beginning of grade 1, although LNF and PSF remain adequate predictors of specific difficulties in rapid naming and phonological awareness, preliminary evidence suggests that NWF may be a superior predictor of phonological awareness and an effective predictor of RAN by the end of grade 1 and beyond, although more research in this area is needed.

### DIBELS 8th Edition is validated for the following measures:

### DIBELS 8th Edition Subtest Alignment with Dyslexia Screening Areas

	Rapid Naming Ability	Phonological Awareness	Alphabetic Principle	Word Reading
Letter Naming Fluency	✓			
Phonemic Segmentation Fluency		<b>✓</b>		
Nonsense Word Fluency	~	~	<b>~</b>	
Word Reading Fluency				<b>~</b>
Oral Reading Fluency				<b>~</b>

For more information, read the University of Oregon's white paper on dyslexia: amplify.com/dyslexia-whitepaper.

### How mCLASS screens for dyslexia risk and related difficulty

mCLASS incorporates these DIBELS 8th Edition subtests and provides additional measures in vocabulary, spelling, and rapid automatized naming.

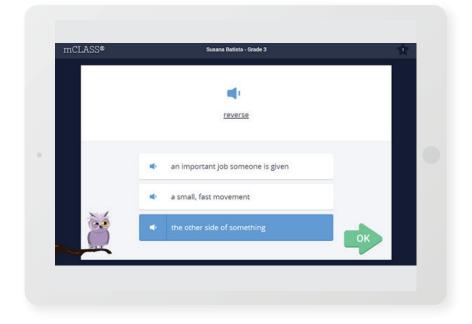




### mCLASS Vocabulary

The mCLASS Vocabulary measure provides additional information to help determine what level of knowledge a student has of grade-specific words, whether the student has strategies for making meaning of words encountered in text, and whether the student is applying vocabulary knowledge to derive meaning from text. The measure is available for benchmarking three times a year in grades K-3.

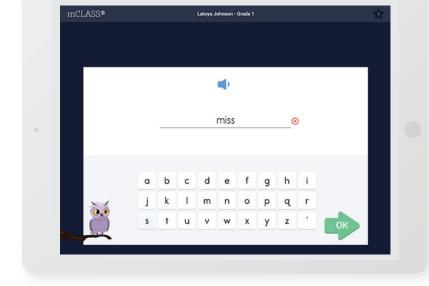
The tasks assess each student's depth of knowledge of grade-level high utility (Tier 2) and content-specific words. Words were selected from widely-used core reading programs, lists of the most frequent and high-utility words (Graves 4000 Words list), and content-specific words (Marzano list) students should know.



### mCLASS Spelling

The mCLASS Spelling measure is based on the principles of General Outcome Measurement and Curriculum-Based Measurement (CBM; Deno, 1992). The spelling measure provides an indication of a student's level of general spelling skills compared to other students, as well as the student's progress in spelling. This measure is available for benchmarking from the middle of kindergarten through the end of third grade.

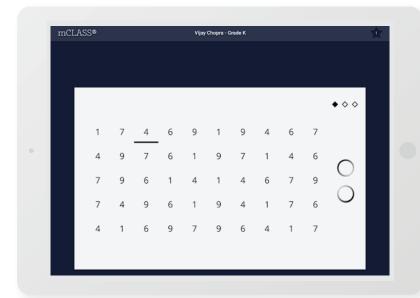
Spelling items represent a random sample of grade-specific words, which are drawn from a pool of words covering the phoneme-grapheme correspondences that students in each grade are expected to learn over the course of the year based on the scopes and sequences of published reading and spelling curricula.



### mCLASS RAN

The mCLASS RAN measure provides additional information on students' skills in the area of rapid automatized naming (RAN), which is considered a measure of phonological processing, specifically the retrieval of phonological information. This measure is available for benchmarking three times a year from kindergarten through third grade.

Using a teacher-student shared screen, the teacher discreetly marks student responses as the student names the repeated numbers accurately and rapidly out loud.



With mCLASS and DIBELS 8th Edition working together, this pairing provides educators with an extensive screening tool that helps reveal the critical early warning signs of reading difficulty or difficulties associated with dyslexia.

Screening area	mCLASS assessments
Phonological Awareness	<b>✓</b>
Alphabetic Principle/Phonics	✓
Reading Fluency	✓
Reading Accuracy	✓
Reading Comprehension	✓
Vocabulary	✓
Encoding (Spelling)	✓
RAN	<b>✓</b>

#### Additional resources

- Dyslexia fact vs. fiction (ebook): amplify.com/factfictionebook
- University of Oregon white paper: amplify.com/dyslexia-whitepaper
- For more information, contact us at mCLASS@amplify.com

#### References

- Adams, 1990; Good et al., 2001; National Research Council, 1998; Stanovich, 1986
- Dyslexia Laws in the USA: A 2018 Update (Youman and Mather, 2018)
- Gearin, Turtura, Kame'enui, Nelson, & Fien, 2018
- Glover & Albers, 2007
- Good, Simmons, & Kame'enui, 2001;
   Morgan et al., 2016; Shaywitz, Escobar,
   Shaywitz, Fletcher, & Makuch, 1992

# For more information on mCLASS, visit amplify.com/mclass.

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