



Supporting Struggling and Dyslexic Readers: Identification and Intervention in Secondary Schools

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July 2018
32nd Annual High Schools That Work Conference

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Supporting Struggling and Dyslexic Readers: Identification and Intervention in Secondary Schools

WHAT?

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As a policy analyst, I spend most of my time reading and writing about research on topics related to education and producing publications that inform policymakers. You might be wondering why a policy analyst is presenting at a conference intended for practicing educators. What I'm going to do today is link research and practice, and I promise you will leave here with at least one — and probably several — new things you didn't know and can use in your school.

By the time you leave this session, you will:

- Understand the basics of what dyslexia is (and isn't)
- Know some common characteristics of secondary students with dyslexia
- Have toolkits that include:
 - Instructional strategies that support students' vocabulary, fluency, and comprehension across the curriculum
 - Assessment tools for identifying which skills to target for struggling readers
 - High-quality reading intervention programs for secondary students
 - Assistive technology resources to help students with dyslexia and struggling readers in general

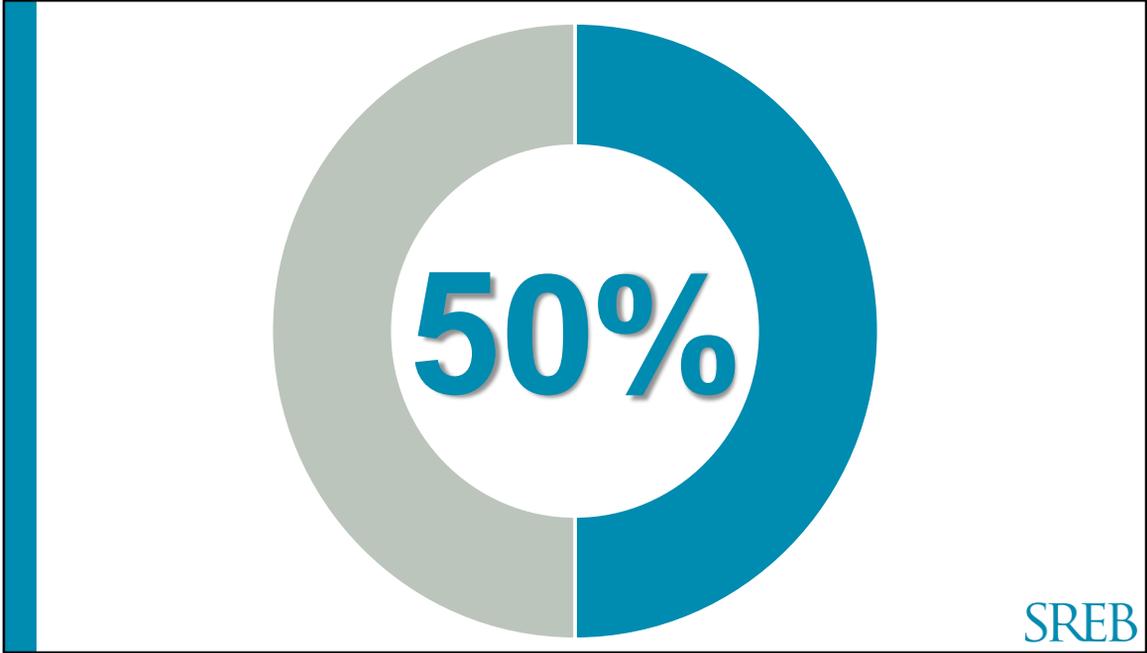
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Session objectives

What percentage of U.S. adults
are unable to
read and understand
a book written at the
8th grade level?

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To start off, I want to pose this question to you:



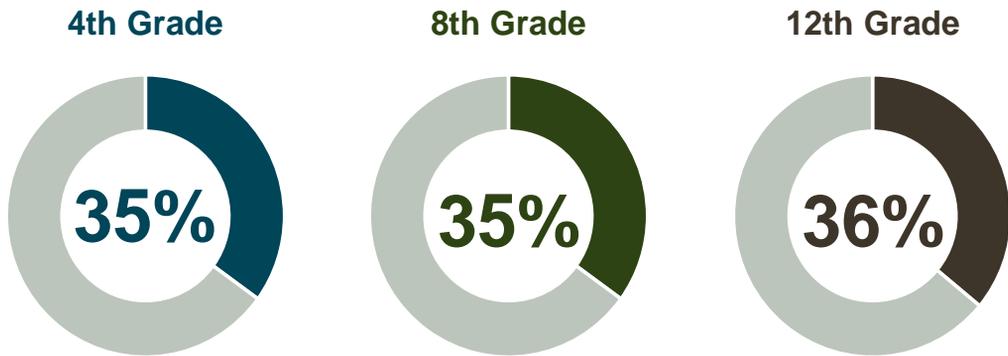
The answer is that 50% of U.S. adults can't read and understand a book written at the 8th grade level. Does that surprise you?

It starts early.



Adults who can't read well didn't just stop reading well in adulthood. This problem starts early. Most students who aren't reading well in 8th or 12th grades weren't reading well in 4th grade, either.

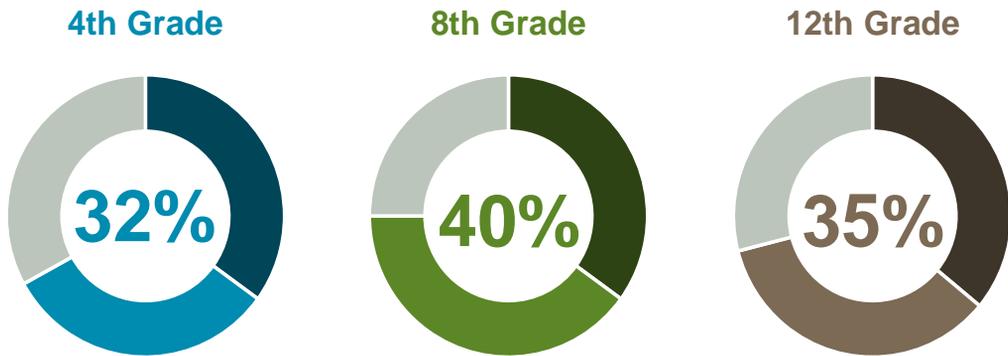
U.S. Students Performing **At or Above Proficient** on NAEP in Reading, 2017



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NAEP, the National Assessment of Educational Progress, is the only assessment available that gives us a way to see how each state is doing. There are four achievement levels on NAEP, and the Proficient level or above is what we aim for — it means students are on track to be college and career ready and have mastered strong grade-level skills. What percentages of students would you guess were skilled readers according to NAEP last year? You can see that the percentages are remarkably consistent across the grade levels. About 35 percent of students learned to read well by 4th grade, and they will continue to read well throughout school and beyond.

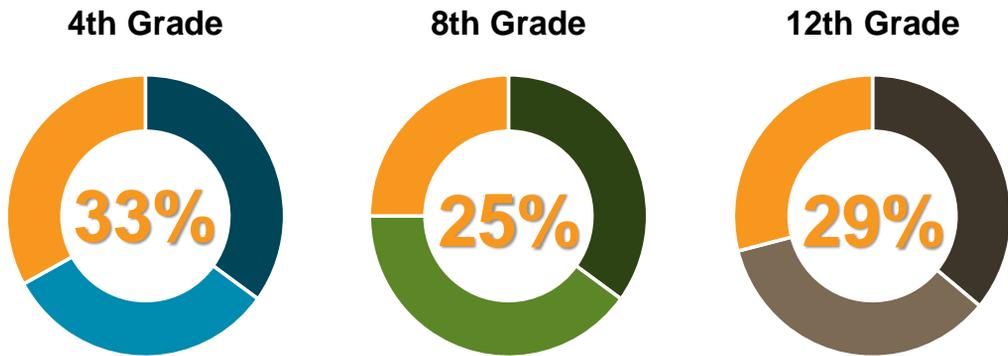
U.S. Students Performing **At Basic** on NAEP in Reading, 2017



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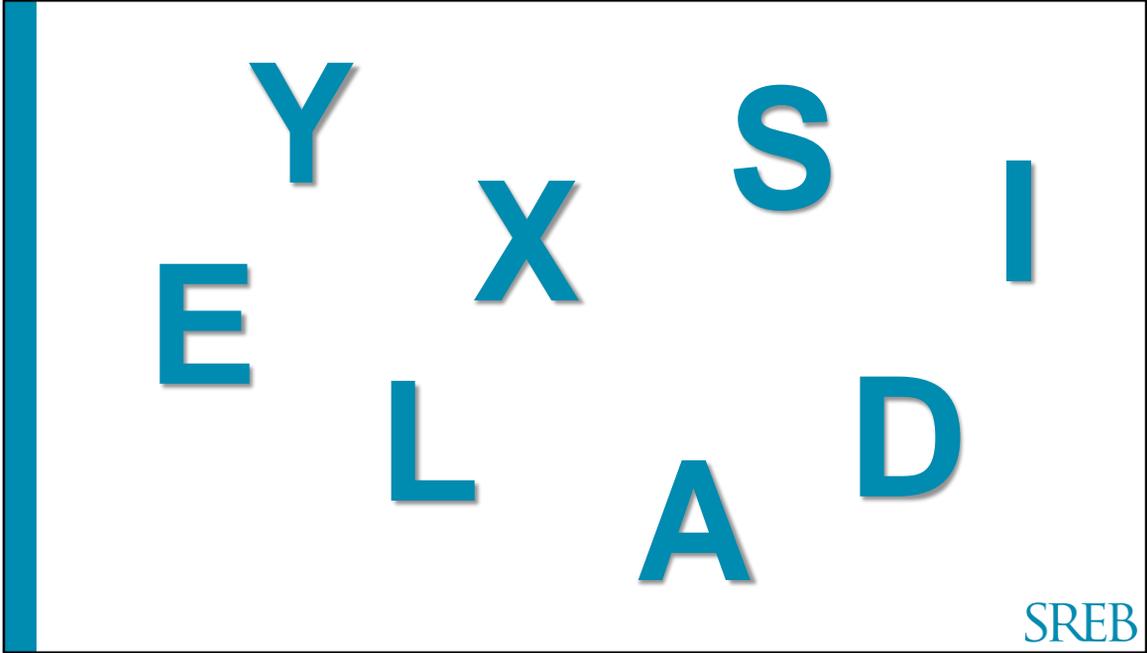
The NAEP Basic level for students who demonstrate some grade-level skills. These students will generally need some support with grade-level tasks. What percentages of students would you guess were “okay” readers in 2017? Again, you see that the percentages are fairly consistent across grades. These are students who can probably read well enough to get through school, but need to strengthen some of their reading skills to become truly proficient readers.

U.S. Students Performing **Below Basic** on NAEP in Reading, 2017



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If Proficient means at or above grade level and Basic means barely on grade level or just below, you can guess that performing below Basic on NAEP is not a good thing. Students performing below Basic do not even demonstrate even partial mastery of grade-level skills. They'll need a lot of support to keep up in the classroom. And like the other performance levels, these percentages are also pretty consistent across grades. There are two explanations for why this group of students is performing at such a low level. One is that they probably came to school without the foundational skills needed for reading and were not taught those skills in school, so they never developed them and this keeps them from ever becoming strong readers. Later on we'll talk about what those skills are and what you can do about these struggling readers. The other explanation for this group is...



... dyslexia.



Reflect...

I want to pause for a moment and give everyone about 30 seconds to reflect on what you already know (or think you know) about dyslexia. Some of you may know a lot; others may know little to nothing. That's not your fault; it isn't something covered in many teacher preparation or leadership programs, especially at secondary levels. Nobody is judging you for that here. So take 30 seconds and think about anything you know about dyslexia, starting now.



Now that you've thought of what YOU know, turn to your neighbor or neighbors and take 1 minute to share what each of you knows about dyslexia. (1 min)

Just for my own reference: raise your hand if you think you already know a lot about dyslexia.

Raise your hand if this is the first time anyone has ever talked to you in a professional development-type setting about dyslexia.

TRUE or **FALSE?**

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Okay, now that we have an idea of what we know (or don't know) about dyslexia, I want to take a moment to address a few common misunderstandings about dyslexia. After I read each of the questions that follows, shout out whether you think it's true or false.

The main signs of dyslexia in young children are reading or writing words backwards and reversing letters when writing (e.g. writing “b” instead of “d”).

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(read) True or false? (audience response)

The main signs of dyslexia include that
are reading or writing words backwards and
reversing letters when writing
(e.g. writing "red" as "der")

FALSE

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This statement is false.

Many young children transpose letters and other symbols or fail to pay attention to letter order as they are first learning to read and write.

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There are some common signs of dyslexia, but this is not a reliable way to identify dyslexia in younger children. **However**, if you see older students consistently doing this, it should raise a red flag.

Some of the first signs of possible dyslexia in young children are seen in oral language: trouble rhyming, limited vocabulary, or mispronouncing common words.

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There are some common signs of dyslexia, but this is not a reliable way to identify dyslexia in younger children. **However**, if you see older students consistently doing this, it should raise a red flag.

Dyslexia cannot be detected until a child is in 3rd grade and two years behind in reading.

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True or false: (read)

Dyslexia can be detected until a child is in 3rd grade and two years behind reading.

FALSE

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False.

It is possible to identify children at risk of dyslexia as early as age 3 — before they are even reading.

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Preschoolers who have trouble rhyming, mispronounce words past the point where it's developmentally appropriate (for example, saying "busgetti" instead of "spaghetti"), or exhibit other difficulties with oral language are at risk of later being diagnosed with dyslexia. This could also be due to other developmental issues, but those are often some of the first warning signs. We can reliably screen kindergarteners and first graders for patterns of strengths and weaknesses in reading that may indicate dyslexia, too. There is absolutely no reason to wait until third grade or until a child is far behind in school to get serious about helping them.

Weaknesses in specific reading skills that are associated with dyslexia can be detected in kindergarten and first grade.

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Dyslexia is a lifelong condition —
people don't outgrow it.

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(Read)



TRUE

Dyslexia is a lifelong condition —
people can't outgrow it.

SREB

This is true, and it will make more sense why this is true in a few minutes when we discuss what dyslexia actually is.

Researchers have shown that dyslexia is a lifelong, neurobiological difference — it can't be outgrown.

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However, early intervention can help individuals with dyslexia learn to read better and help rewire key connections in the brain.

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Educators should not say a student has dyslexia because it is a diagnosis that only medical professionals can give.

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(read)

educators should not say "student has
dyscalculia because it's a diagnosis that
means professionals can't help."

FALSE

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This is a very common misconception in schools, and one I was told as RTI coordinator by my school's assistant principal over special education. But she was wrong.

A formal diagnosis is not necessary for identifying students who may have dyslexia in public schools; reliable screeners are available.

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It is very important that we NOT be afraid to say that a student may have dyslexia or has characteristics of dyslexia. There are certain difficulties that are associated with dyslexia, and if we identify it as such we can better address those difficulties. That doesn't mean we're becoming medical professionals and giving a diagnosis; we're just recognizing the patterns we see as an identifiable learning difference that we can address.

The U.S. Department of Education has explicitly directed public schools to use the term *dyslexia* when it applies in order to better meet a student's learning needs.

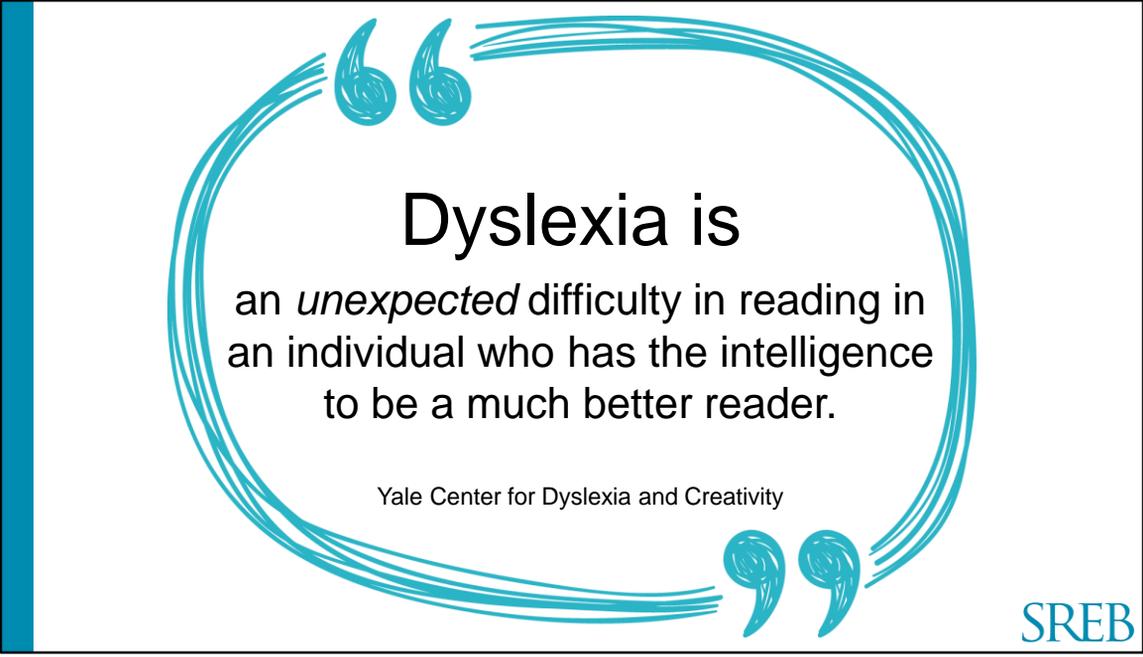
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Before we go on, does anyone have any questions that have come up that I can try to answer?



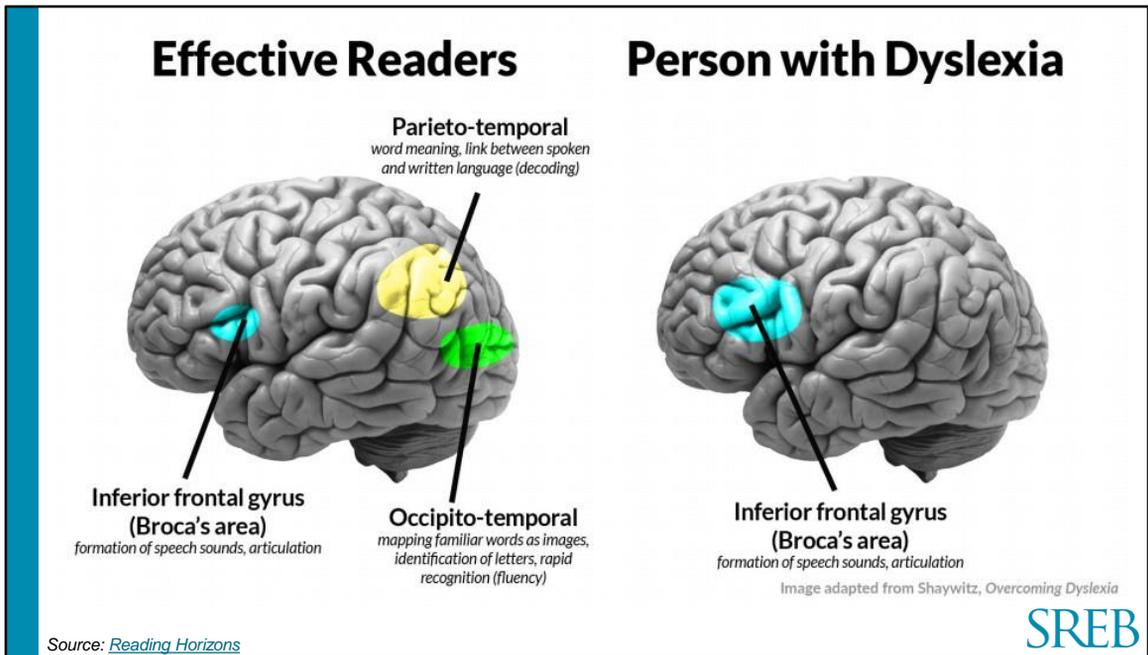
Dyslexia is

an *unexpected* difficulty in reading in an individual who has the intelligence to be a much better reader.

Yale Center for Dyslexia and Creativity

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So what exactly is dyslexia? Dyslexia is a neurobiological difference in how the brain processes language and matches oral language with written language. According to the Yale Center for Dyslexia and Creativity: “People with dyslexia have trouble matching the letters they see on the page with the sounds those letters and combinations of letters make. And when they have trouble with that step, all the other steps are harder.”



There are three main parts of the brain that are involved in reading — first we match symbols to sounds, then we put those sounds together to make an identifiable word, and finally we locate the meaning for that word and use it to make sense of what we’re reading. In good readers, all of these processes work together, and the more we read the more automatic the process of reading becomes.

Dyslexia results in less efficient reading because the parts of the brain that would typically help a person recognize familiar words and sound out unfamiliar words aren’t activated. Instead, the person overrelies on the part of the brain that processes oral language. While a typical reader will remember what an unfamiliar word looks like and means after reading it a number of times, it may never become familiar to a dyslexic reader — the connection between the sound of the word and the letter pattern and meaning of the word is never made. They have to learn other ways to recognize words or compensate for this difficulty. That’s why very bright students with dyslexia often fall through the cracks — they memorize enough words to read with some understanding or find other ways to adapt that allow them to function well enough to get by. But imagine what a really bright student with dyslexia could do if she were helped to reach her full potential?

At least



1 IN 10

people are thought to be affected
by **dyslexia**

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The estimates vary based on how you define it, but researchers generally agree that between 10 and 20 percent of people have some degree of dyslexia. That means that a teacher with 150 students probably has at least 15 and as many as 30 students with dyslexia in her classroom in any given year.

Dyslexia Policies in SREB States, May 2018



- Requires that postsecondary educator preparation programs include training for elementary teacher candidates on evidence-based teaching strategies and interventions for reading and/or dyslexia¹
- * All students or students not meeting a benchmark on a universal screening must be screened for reading skills affected by dyslexia at least once in grades K - 3¹
- Legislation with new requirements for screening or training was proposed in the state's 2018 legislative session, but did not pass

¹In Kentucky, training must be implemented by 2019-2020. South Carolina's new screening requirements take effect in 2019-2020.

Source: SREB review of state documents. For more information, see SREB's 2018 brief, *Dyslexia Policies in SREB States*.

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A lot of states are realizing what a huge issue this is and are taking steps to address it in policy. In the SREB region, many of our states have passed legislation to strengthen preservice and in-service teacher training or require universal screenings for dyslexia in the early grades — or both. So if you are in one of these states, hopefully you will see fewer and fewer unidentified students with dyslexia in the future. But we have a long way to go, and even when states pass laws, districts often struggle to actually address the issue — often without any extra funding.

Signs of Dyslexia in Secondary Students

Strengths	<ul style="list-style-type: none"> • A high level of understanding of text that is read aloud • Talent for high-level conceptualization and original insights • Strong in areas not dependent on reading, such as math, use of computers, and visual arts
General Difficulties	<ul style="list-style-type: none"> • Has to study more than peers • Has low self-esteem or anxiety • Has trouble finishing tests on time; tests do not fully reflect knowledge
Reading, Writing & Spelling Difficulties	<ul style="list-style-type: none"> • Reading requires great effort and is at a slow pace • Avoids reading aloud • Has poor spelling and/or handwriting • Avoids writing; compositions are brief and simplistic • Word processed compositions can be disorganized and lack cohesion
Speaking Difficulties	<ul style="list-style-type: none"> • Pauses or hesitates when speaking, using words like <i>um</i> and <i>like</i> repeatedly • Uses imprecise language; for example, <i>stuff</i> or <i>things</i> • Needs extra time to respond to questions • Oral language abilities much higher than writing skills • Spoken vocabulary is smaller than listening vocabulary • Has difficulty remembering names of people and places; confuses names that sound alike

Adapted from [Signs of Dyslexia, Fairfax County Public Schools](#)

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So how can you recognize students with characteristics of dyslexia in your school? Every person with dyslexia is different, but there are some common signs that you can look for in your students.



Can you think of any students
from last year who have
multiple signs of dyslexia?

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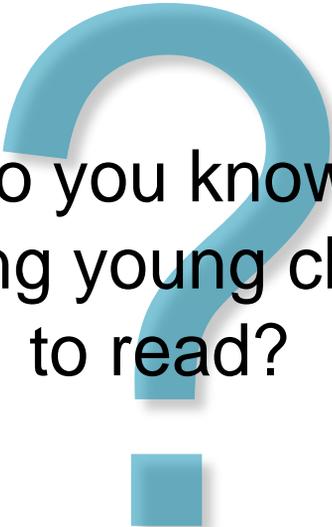
Are there students who stick out to you from this past year, based on the signs of dyslexia we just saw? If they're still at your school this coming year, do what you can to advocate for them.

DYSLEXICS OF THE WORLD



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As educators, it's our responsibility to educate ALL students to the best of our ability — and when it comes to dyslexic students, it's important to recognize their unique learning needs and help the school environment work better for them.



What do you know about
teaching young children
to read?

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We generally expect students to show up in middle and high school with at least the basic reading skills — maybe they need to be taught specific strategies for reading content-area text or need to continue building their vocabularies, but the fact of the matter is that secondary teachers are usually not equipped to actually teach students *how to read*. Or are you? Take a minute and think to yourself about what you know (or maybe wonder?) about teaching children to read.



Now that you've thought of what YOU know, turn to your neighbor or neighbors and take 1 minute to share what each of you knows about teaching children to read. (1 min)

Learning to read

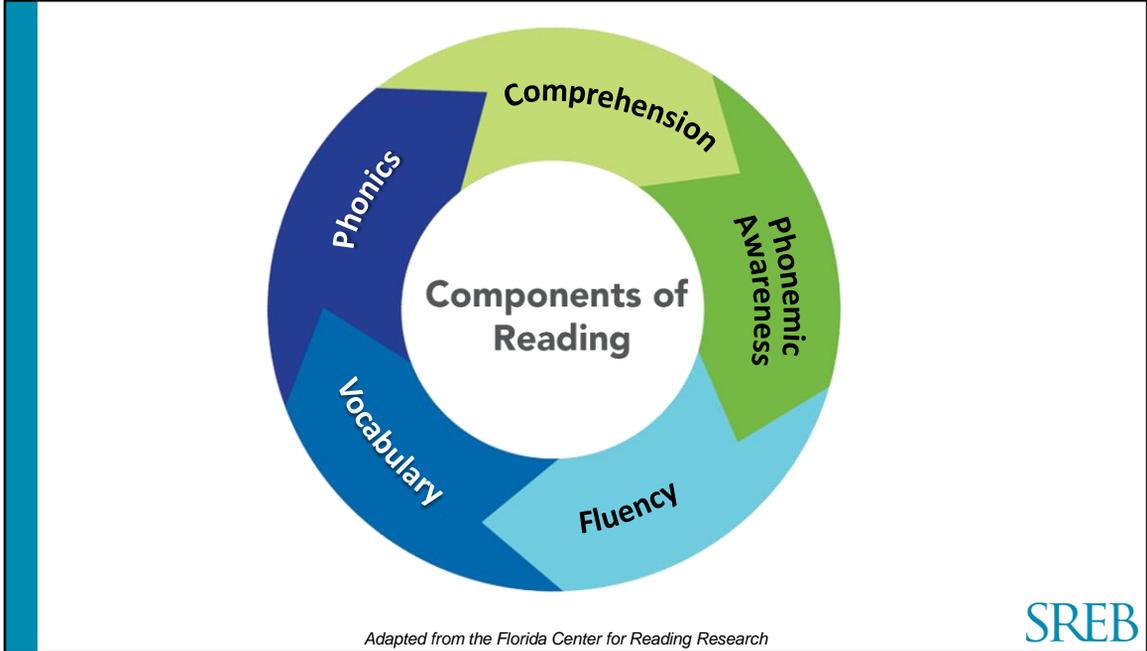


is not

a natural process

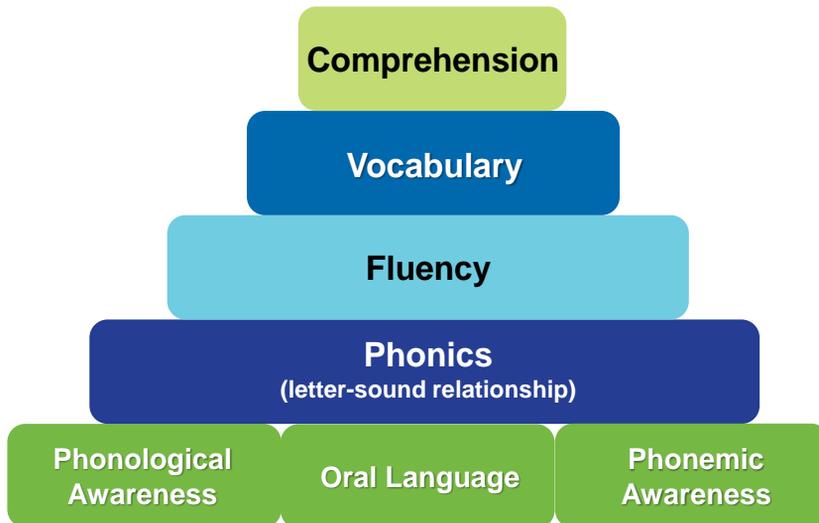
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If there is one thing we've learned from research on reading, it is that learning to read is not a natural process. Unlike learning to speak, it is not something children will begin to do without some sort of instruction. Children have to be taught that these symbols are connected to the words we say.



Reading is a complex process that relies on multiple skills. Nearly 20 years ago, a National Reading Panel of experts reviewed all of the existing research on reading to determine what elements of reading instruction are necessary for teaching students to read. The Panel identified five essential components of reading, which you see here.

Building Reading Proficiency



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This is another way of looking at the essential components of reading. Notice that the foundation for all of the other skills are two important oral language skills, phonological awareness and phonemic awareness. Children who come to school without strong language skills will struggle to break down and sound out the words they see on a page even after being taught phonics unless they also work on those foundational language skills. Teaching children to read is *so much more* than a little bit of phonics and a lot of practice.

THE BUILDING BLOCKS OF PHONOLOGICAL AWARENESS

Phonological awareness involves identifying and manipulating units of oral language, including **words** and **syllables**.



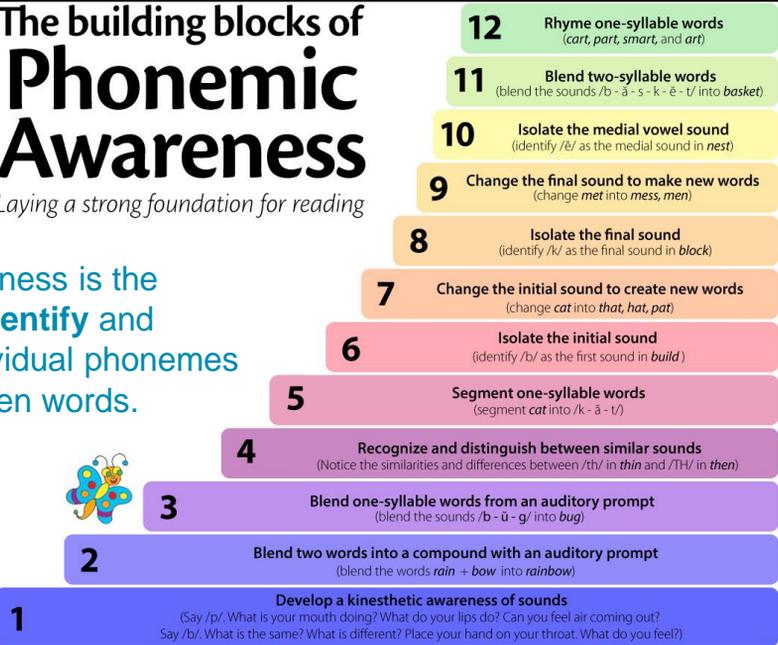
Image source

For PDF version only: A description of phonological awareness, which covers a variety of oral language skills important for reading.

The building blocks of Phonemic Awareness

Laying a strong foundation for reading

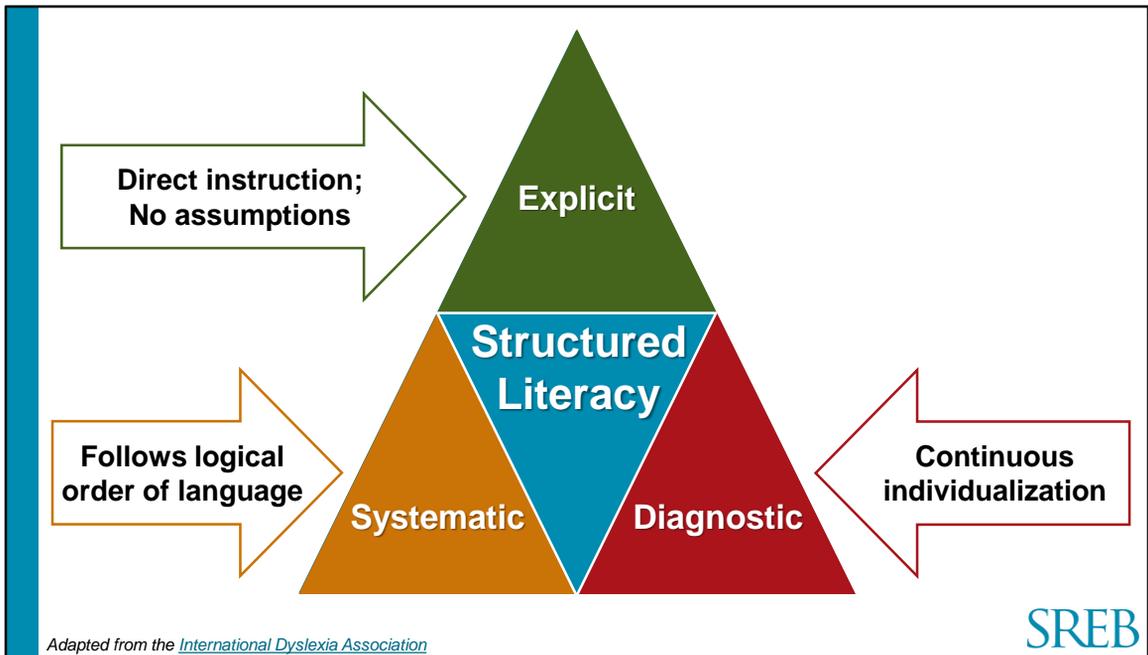
Phonemic awareness is the ability to **hear, identify and manipulate** individual phonemes (sounds) in spoken words.



[Image source](#)

For PDF version only:

Phonemic awareness is a specific part of phonological awareness. If you're a parent, you may have helped your child do these things more or less intentionally. Saying nursery rhymes is a great way to help children build phonemic awareness. Research shows that just interacting verbally with your child — talking to and with your child — as much as possible is one of the most important ways to help them build strong language skills. But many parents don't know to do these types of activities with their kids, and some young children don't have optimal environments where they're read to often and spend a lot of time interacting directly with adults. Some children will develop phonemic awareness at home; some will enter school with some weaknesses here.



The best practice for teaching all components of reading to *all* students is called “structured literacy,” a term created by the International Dyslexia Association to describe the variety of programs and methods that use these common elements. Structured literacy describes systematic, explicit, and diagnostic instruction in the elements of written language that we must understand to be excellent readers. *Explicit* means direct teaching — for example, teaching students the phonics patterns of the English language as a kind of “code” rather than assuming students will figure them out implicitly as they read more and more words. *Systematic* means that we teach the most basic concepts first, progressively moving toward the most difficult. That’s not a new idea for teachers. And structured literacy is also *diagnostic* in that teachers are continuously identifying the skills students struggle with and individualizing instruction to address them.

STRUCTURED LITERACY PRIMER

These PRINCIPLES guide how Structured Literacy's elements are taught.

Structured Literacy's Evidence-Based Teaching Principles

Systematic & Cumulative
 Structured Literacy teaching is systematic and cumulative. **Systematic** means that organization of material follows the logical order of language. The sequence begins with the easiest and most basic concepts and elements and progresses methodically to the more difficult. **Cumulative** means each step is based on concepts previously learned.

Explicit
 Structured Literacy instruction requires direct teaching of concepts with continuous student-teacher interaction and does not assume students deduce concepts. (While **multisensory teaching** lacks the extensive research that validates Structured Literacy's other teaching principles, decades of clinical results support efficacy of simultaneous association of auditory, visual, kinesthetic-motor modalities for enhancing memory and learning in students with dyslexia.)

Diagnostic
 Teachers must be adept at individualizing instruction (even within groups) based on careful and continuous assessment, both **informal** (e.g., observation) and **formal** (e.g., with standardized measures). Content must be mastered to the degree of automaticity needed to free attention and cognitive resources for comprehension and oral/written expression.

Source: [International Dyslexia Association](http://InternationalDyslexiaAssociation.org)

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For PDF version only: A more detailed explanation of structured literacy

STRUCTURED LITERACY PRIMER

Structured Literacy's ELEMENTS work together.

Structured Literacy's Evidence-Based Elements

Phonology (study of sound structure of spoken words) is a key element of Structured Literacy Instruction. **Phonemic awareness** (ability to distinguish / segment / blend / manipulate sounds relevant to reading/spelling) is central to phonology.

Sound-Symbol Association Once students develop phoneme awareness, they must learn the **alphabetic principle**—how to map phonemes to letters (**graphemes**) and vice versa.

Syllables Knowing the six syllable / vowel grapheme types helps readers associate vowel spellings with vowel sounds. Syllable division rules help readers divide / decode unfamiliar words.

Morphology A **morpheme** is the smallest unit of meaning in language. Studying base elements and affixes helps readers decode and unlock the meanings of complex words.

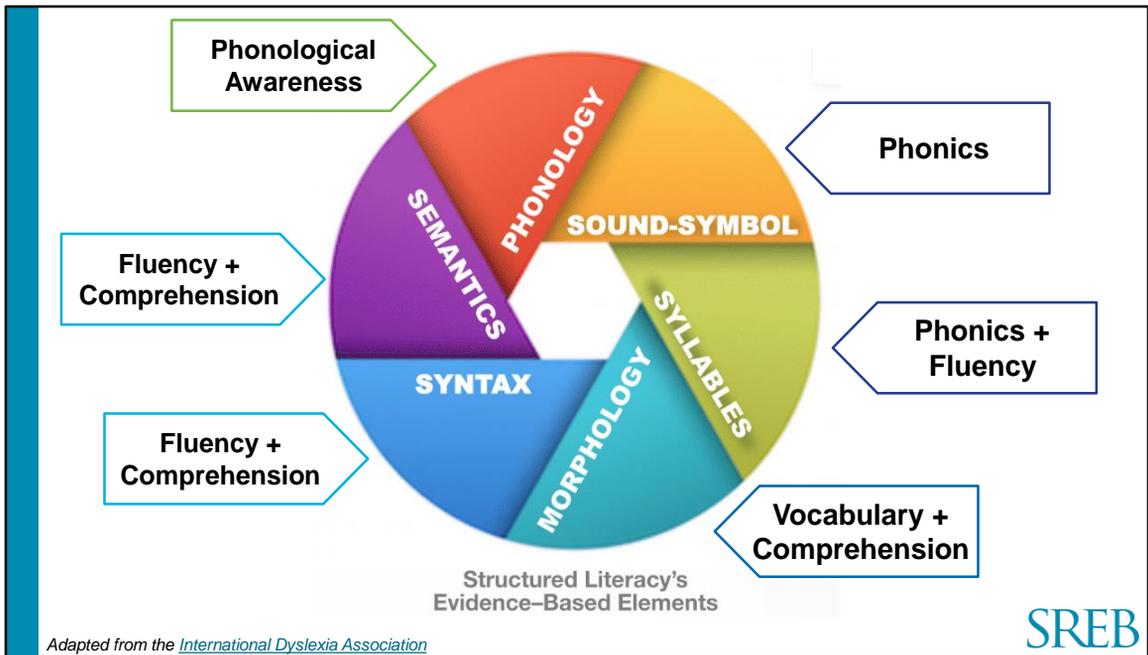
Syntax—the set of principles that dictate the sequence and function of words in a sentence—includes grammar, sentence structure, and the mechanics of language.

Semantics Semantics is concerned with meaning. The Structured Literacy curriculum (from the start) includes instruction in the comprehension and appreciation of written language.

Source: [International Dyslexia Association](http://InternationalDyslexiaAssociation.org)

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For PDF version only: A more detailed explanation of structured literacy

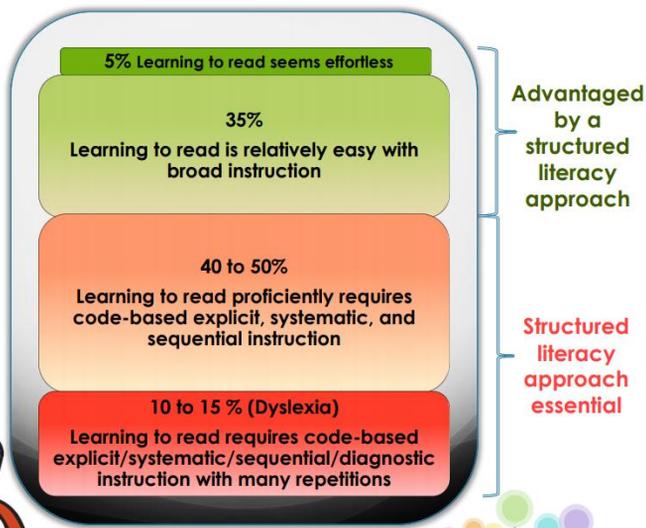


For PDF version only: The elements taught in structured literacy are essentially the five components of reading, but in more detail. Phonology and sound-symbol association are the oral language and phonics blocks you saw a couple slides back showing the five essential components of reading. The study of syllables and morphology helps us both sound out complex words and figure out their meanings — that’s vocabulary. And knowledge of syntax and semantics are important for both fluency and comprehension. Put together, structured literacy is a framework for explicitly teaching elements of language that are learned implicitly by some, but not by all. Structured literacy is critical for students with dyslexia and struggling readers in general, but it benefits all students. And one or more of the skills you see here are missing for your struggling secondary readers, so it’s important to address them. But how?

The Ladder of Reading

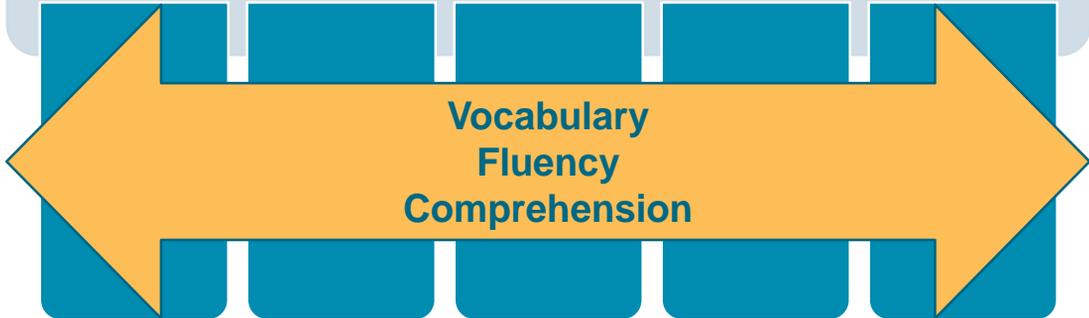
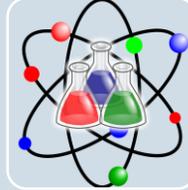
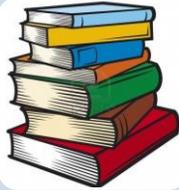


© N. Young, 2018



In an ideal world, all children would learn to read using elements of structured literacy — and many students would be doing better in reading than they currently are. We know from research that a large percentage of children come to school without some of the foundational skills they need for reading and will need the type of instruction you find in structured literacy if they are ever going to become strong readers. Other children may not *require* such explicit and thorough instruction, but it will help all children learn to read well.

What Works in Secondary: Improve Core Instruction



Now, by the time they get to middle or high school, your students have already been taught to read in one way or another. For some it was effective; other students didn't get what they needed from reading instruction. Now they're your responsibility, and you have to teach content to your students regardless of their reading ability. So what can you do for those who aren't strong readers? Helping struggling readers in secondary schools isn't just the responsibility of ELA teachers: all teachers across the curriculum can use strategies that support language and reading in their classrooms, including explicitly teaching vocabulary, helping students become more fluent readers through scaffolded practice, and teaching and reinforcing comprehension strategies. One aspect of language in particular that supports all of these things and isn't often addressed in classrooms is *morphology*.

Morphology

the study of the forms of words

Three morphemes

Unforgivable

Prefix

Un = Not

Root

To stop feeling
anger and
resentment towards
an event, situation
or someone.

Suffix

able = Capable of

[Image source](#)

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In linguistics, morphology is the study of the forms of words. Words are made up of morphemes, or meaningful units of language, and we can use morphology to teach students how to figure out the meaning of words they may not know. Being familiar with a lot of morphemes, as opposed to just memorizing the meaning of words as a whole, means that students can easily add words with recognizable morphemes to their vocabularies. Studying morphology is especially helpful at the secondary level, when students run into larger and more technical vocabulary words. And this is something we as proficient readers already know how to do — with some preparation and a little research on word parts as needed, you can easily work a bit of morphology into your classroom practice.

Morphology

the study of the forms of words

quadrilateral

quadri • lateral

four

a side part of something

latitude

quadruped

quadru • ped

four

feet

pedestrian

quadrennial

quadre • ennial

four

Happening at intervals of (X) years

centennial

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When we teach morphology across all content areas, we equip students with the tools to improve their vocabularies and understand more of the texts they read. For example, here are three words with the same morpheme — “quad.” What does quad mean? (Four.) Some students may already know that; some may not. But if we *teach* them not only that quad means four, but also the roots and suffixes you see here, they’ll be better able to take that knowledge and apply it to other words. If we know quad means four and lateral means side, it’s not hard to remember that a quadrilateral is a shape with four sides. And because we know lateral, we’re also more likely to remember that latitude is the West/East, or sideways, value of a point on Earth. If we know quad means four and ped means feet, in science class we can probably figure out that a quadruped has four feet. And because we know ped means feet, we’re more likely to remember that a pedestrian is a person on foot. If we know quad means four and –ennial means that something happens every X years, it’s not a big jump to understand that quadrennial means something happens every four years — and centennial means something happens every century. All I have done here is take the time to split each of these words into recognizable parts, review what those parts mean, and put them back together. The next good practice would be to have students use these words in context to help move them into long-term memory. And this doesn’t have to be boring; you can make it interactive — some of your students

may already know some of these. See if they can become “word detectives” and figure out new vocabulary based on other words they know.

Morphologicomical



[Image source](#)

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A fun way to introduce the meaning and usefulness of morphology to your students might be to engage them with some comics and discuss the word play that makes these comics funny. Here's one:

Morphologicomical



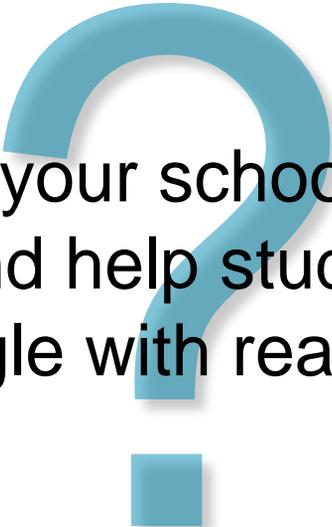
[Image source](#)

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I mean, that kind of makes sense, right?



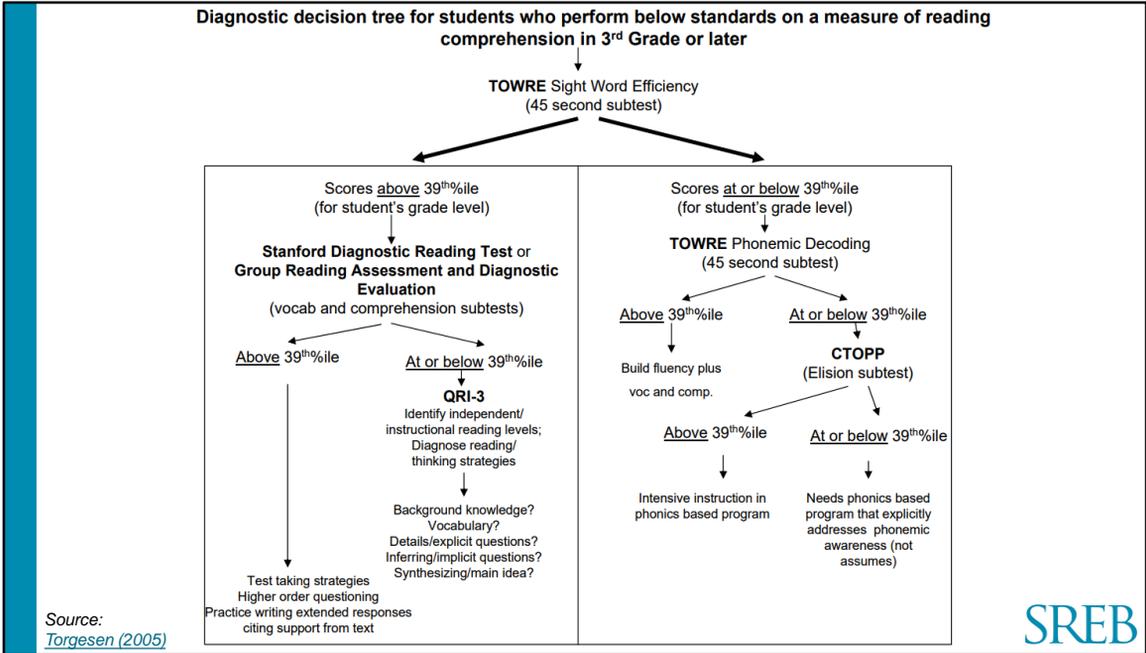
And finally:



How does your school currently identify and help students who struggle with reading?

SREB

Tackling morphology is one specific strategy any teacher can integrate into their classroom, and it will benefit not just struggling readers, but all students. In a moment we're going to talk about some other strategies that help struggling readers in particular, but before we do that, I want you to think for a moment about how your school identifies and helps struggling readers as of right now. Do you do some sort of routine screening or data dive at the beginning of the year? How (and when) do the students you identify get extra support? Take about 30 seconds and think about this.



This is a suggested approach for identifying students' and addressing exact difficulties with reading, proposed by Dr. Joseph Torgesen at the Florida Center for Reading Research. We're not going to go through it, but it's in this Powerpoint so you can take a look at a later point in time. Basically, what he lays out is a decision tree for using different screening tools to hone in on which skills a student needs support with and what that support should look like.

What Works: Identify Students Who Need Support

- Review state reading/ELA test scores to **identify low-scoring students**
 - Use Lexile measure, if available
 - Compare scale score to passing scores for lower grade levels

FCAT 2.0 Reading Developmental Scale Scores (140 to 302)					
Grade	Level 1	Level 2	Level 3 (Passing)	Level 4	Level 5
3	140-181	182-197	198-209	210-226	227-260
4	154-191	192-207	208-220	221-237	238-269
5	161-199	200-215	216-229	230-245	246-277
6	167-206	207-221	222-236	237-251	252-283
7	171-212	213-227	228-242	243-257	258-289
8	175-217	218-234	235-248	249-263	264-296
9	178-221	222-239	240-252	253-267	268-302
10	188-227	228-244	245-255	256-270	271-302

Based on information from [Vaughn & Fletcher \(2012\)](#), and [RTInetwork.org](#). FCAT scores from [Florida Department of Education](#).

SREB

The first step in helping struggling readers is identifying them. It's not enough to say, "This student doesn't read well." I'm talking about systematically identifying any students in your classroom or in your school who did poorly in reading last year and determining what it is that is holding them back. The first step in this process is using the data you have to figure out which students need a closer look. If your school provides Lexile scores as part of a student's assessment results, you can look up a Lexile chart to see what grade level a particular student's Lexile score falls into. Many states now have scale scores on their state assessments that are scaled across all grade levels. This is an example from Florida. If I have a 9th grader who scored a 225 in reading, that places her in Level 2 for 9th grade — which is not considered passing. That same score would be in the Level 3 passing range in 6th grade, so this tells me she is performing at about a 6th grade level in reading.

Recs come from

<http://www.rtinetwork.org/essential/assessment/screening/screening-for-reading-problems-in-grades-4-through-12> and Torgesen & Miller (2009) and Vaughn & Fletcher (2012) – Response to Intervention with Secondary School Students with Reading Difficulties

What Works: Identify Students Who Need Support

- Screen low-scoring students to **identify specific skill deficits**
 - Fluency
 - Comprehension
 - Word-level reading skills (decoding)

Based on information from [Vaughn & Fletcher \(2012\)](#) and [RTInetwork.org](#)

SREB

After identifying students who need support, it's important to screen these students to determine which skills they need help with. Providing a student with extra instruction in comprehension strategies isn't going to do much if they can't read individual words accurately and fluently. The three skills that secondary students who are poor readers tend to struggle with are fluency, comprehension, and decoding, which is sounding out words. That last one might be surprising, since we tend to assume that students enter middle or high school with at least the ability to read words.

Researchers estimate that

10% of all adolescents

and as many as

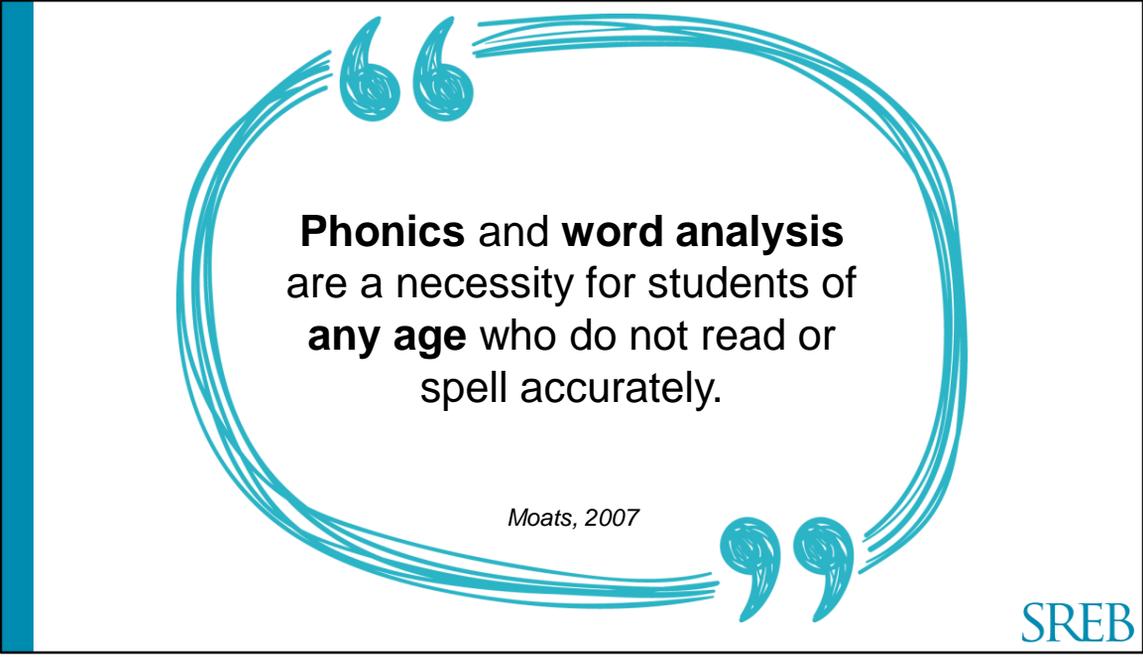
65% of adolescent struggling readers

have trouble with **word-level skills**.

Sources: [National Institute for Literacy](#) and [Hock et al. \(2009\)](#)

SREB

Maybe students *shouldn't* be struggling with decoding in secondary, but research shows many secondary students who do not read at grade level have trouble with multiple skills, and up to two-thirds have difficulties at the word level — indicating weak foundational reading skills. Fluency and comprehension depend on word-level reading ability. When students recognize large numbers of words and can sound out those they don't know quickly, they free up more working memory to actually think about what they read as they're reading it.



Phonics and word analysis
are a necessity for students of
any age who do not read or
spell accurately.

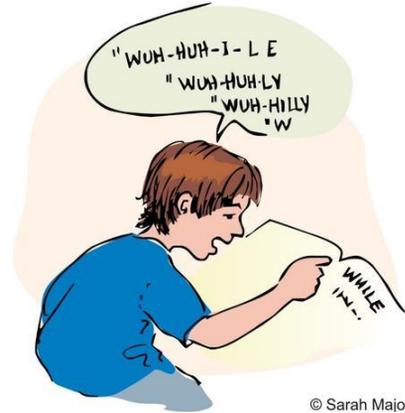
Moats, 2007

SREB

When we talk about decoding, part of what we're talking about is phonics. Noted researcher Louisa Moats notes that instruction in phonics and word analysis is a necessity for students of any age who don't read or spell accurately.

What Works: Decoding

- Decoding
 - Explicit instruction in phoneme-level and syllable-level phonics
 - Explicit instruction in morphology



[Image source](#)

SREB

Now, raise your hand if you feel qualified to teach phonics. That's right — the average secondary teacher is simply not trained to do that. It's not supposed to be your job. So when we talk about intervention instruction in phonics for secondary students, know that this is something your school may need to figure out how to do. Maybe there are personnel at your school who *are* qualified to teach phonics, like special education teachers, for example. If not, don't panic — there are programs designed specifically for secondary students that address these foundational skills, and a list is included at the end of this presentation in the Resources section.

Phonics Support for All Content Areas

- When planning lessons, identify content-area vocabulary that might be difficult for students.
- When introducing these words, pronounce the word, break it into spoken syllables, and then write it one syllable at a time (e.g. atmos-phere).
- Point out patterns in the pronunciation and spelling of prefixes, suffixes, and vowels in selected words (e.g. *rac-ism*, *sex-ism*, *age-ism*).
- Point out the similarities and differences of words that belong to the same “word family” (e.g. *define*, *definitely*, *definition*).
- Model using new or difficult words in different contexts.
- Provide opportunities for students to practice using new or difficult words and reinforce correct pronunciation, spelling and usage.

Based on information from LDOnline.org

SREB

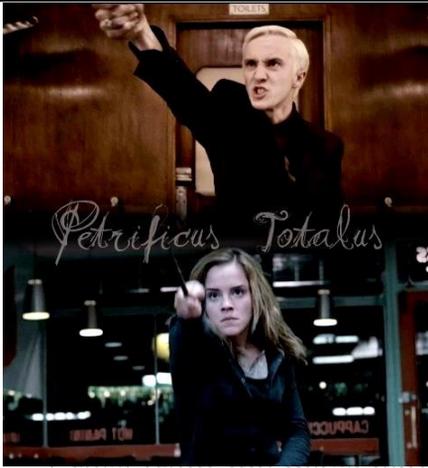
There are, however, some simple things you can work into your teaching to help support your students’ phonological and phonics skills. And phonics practice is not just for young children — we as adults are constantly using phonics skills to read and spell new words. And I don’t just mean knowing letter sounds; at the secondary level and above, most students should be able to use phonics at the syllable level to chunk new words and read them accurately. Building phonics support into your classroom is just helping students continue to develop those skills. You can do this by:

- identifying content-area vocabulary that might be difficult for students while planning lessons and addressing this vocabulary with students directly;
- when introducing these words, pronounce the word, break it into spoken syllables, and then write it one syllable at a time (e.g. atmos-phere);
- pointing out patterns in the pronunciation and spelling of prefixes, suffixes, and vowels in selected words (e.g. *rac-ism*, *sex-ism*, *age-ism*);
- pointing out the similarities and differences of words that belong to the same “word family” (e.g. *define*, *definitely*, *definition*);
- when possible, making a connection to another word students should know (even if it’s a made-up word, like *petrificus*);
- Modeling the use of new or difficult words in different contexts; and

- Providing opportunities for students to practice using new or difficult words and reinforcing correct pronunciation, spelling, and usage.

Recs come from Vaughn & Fletcher (2012) – Response to Intervention with Secondary School Students with Reading Difficulties; Shanahan (2006) – The National Reading Panel Report: Practical Advice for Teachers; Paige & Magpuri-Lavell (2014) – Reading Fluency in the Middle and Secondary Grades

Image source



con • vul • sive

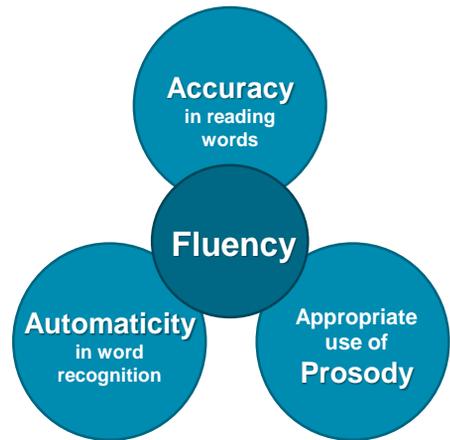
pet • ri • fied

tinc • ture

This is an example of how you might identify and break down troublesome words with your students.

What Works: Fluency

- Fluency
 - explicit instruction in syllable-level phonics and morphology
 - repeated oral reading with feedback
 - paired reading
 - choral reading
 - reading-while-listening (to reader or audiobook)
 - preview reading material using audiobook or oral reader



Based on information from Vaughn & Fletcher (2012), Shanahan (2006), and Paige & Magpuri-Lavell (2014)

Image adapted from [source](#)

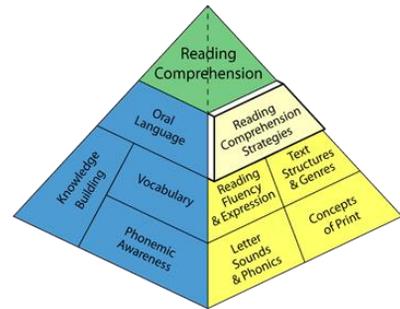
SREB

Being a fluent reader means reading words accurately, automatically, and in a way that sounds like speech. Strategies that help build and support fluency include these. It's important to note that these are strategies you can pick and choose from when you feel one is appropriate and would be beneficial to students; that doesn't mean you have to have students read every text out loud in class. These strategies will help all students read text more fluently and understand text better on their own because they have the opportunity to hear it or discuss it in addition to reading it independently.

What Works?

- **Comprehension**

- Explicitly teach morphology and new/unusual vocabulary
- Activate prior knowledge before students read
- Preview text before students read
- Have students use graphic organizers and thinking maps
 - Consider a consistent set across content areas
 - Teach students to choose and use these independently



Based on information from Boardman et al. (2008); [image source](#)

SREB

Comprehension depends on a lot of different skills — you have to first be able to read text, then use your background knowledge and vocabulary to understand what it means. Some students struggle with comprehension because they aren't accurate and fluent readers and most of their working memory goes toward the act of reading words, rather than making meaning out of what they read. If they're having trouble with accuracy or fluency, it's going to be hard to improve comprehension until you build those skills first. Some students have poor oral language skills and vocabularies, which makes it hard to understand text even if you can read it accurately and fluently. They need to build vocabulary and background knowledge. Others haven't mastered skills like questioning as you read, rereading when you need to, and metacognitively checking for understanding as you go. So intervention for comprehension skills partially depends on how exactly the student is struggling. Generally speaking, though, there are strategies you can teach students to use in your classroom that will benefit everyone:

What Works: Comprehension

Metacognition: teach students to monitor understanding and identify breakdowns by:

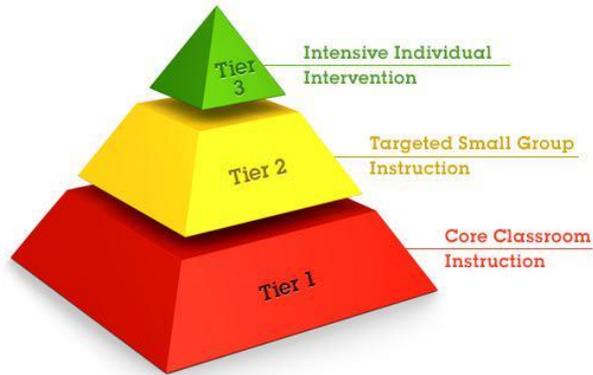
- Visualizing
- Summarizing after reading each paragraph
- Noting words or concepts they don't understand
- Rereading as needed

Based on information from Boardman et al. (2008); [image source](#)

SREB

Students who struggle with comprehension often haven't developed good metacognitive strategies to think about their thinking. You can help all students with this across content areas by having students visualize what they're reading while they read it, stop and summarize what they just read after each paragraph, write down words or concepts they don't understand as they read, and reread if they need to. These might seem obvious to us, but they're skills that students have to be taught and reminded to use until they're second nature.

Provide Sufficient Evidence-Based Intervention



Response to Intervention

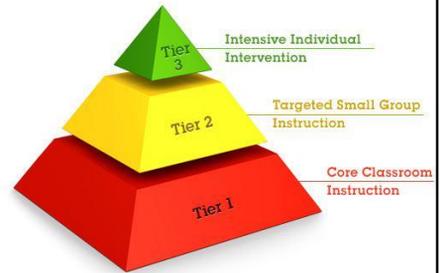
[Image source](#)

SREB

Hopefully you are all familiar with the concept of RTI, where students receive increasing support and increasingly *specific* support depending on how well they respond to interventions. RTI is built on a strong base of core classroom instruction, which we've already discussed. On top of that, students who are only struggling may need some limited, targeted support, or they may need very intensive, ongoing, specialized support.

Provide Sufficient Evidence-Based Intervention

- Tier 2: ongoing whole-group instruction (e.g. a reading support elective)
 - Students reading near grade level
 - Students who have strong decoding skills but need to build fluency and/or comprehension



3 Tiers of Support

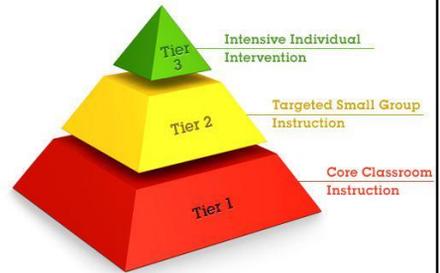
Based on information from Vaughn & Fletcher (2012). [Image source](#)

SREB

What students need is going to vary. In secondary, Tier II intervention is for students who are reading far enough below grade level that they have trouble keeping up in the classroom and students who already have good decoding skills, but may need more targeted and explicit instruction in comprehension strategies than they get in their regular classes, as well as more practice reading in a scaffolded setting so they can build fluency. If your school has a reading support class that some students have to take as an elective, that's a good setting for these students.

Provide Sufficient Evidence-Based Intervention

- Tier 3: daily small-group or individual instruction, minimum 50 minutes per day
 - Students reading well below grade level
 - Students with basic decoding skills who need help applying them to more complex words and text



3 Tiers of Support

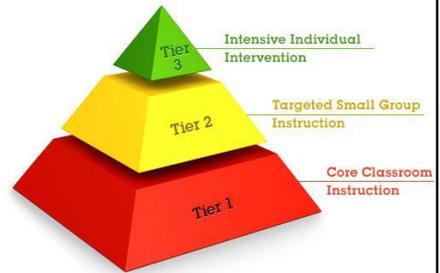
Based on information from Vaughn & Fletcher (2012). [Image source](#)

SREB

On the other hand, you probably have a much smaller number of students who make you wonder how in the world they got to your classroom with the reading skills they have. These Tier 3 students need much more intensive and individualized instruction if they're ever going to catch up in reading. These are the students who may need to work with a teacher who has the knowledge to go back to the basics or may need to use a specialized intervention program that can address decoding.

Provide Sufficient Evidence-Based Intervention

- Tier 3 for students with dyslexia:
 - daily small-group or individual instruction
 - structured, sequenced, multisensory methods (e.g. Orton Gillingham, Wilson, Barton)

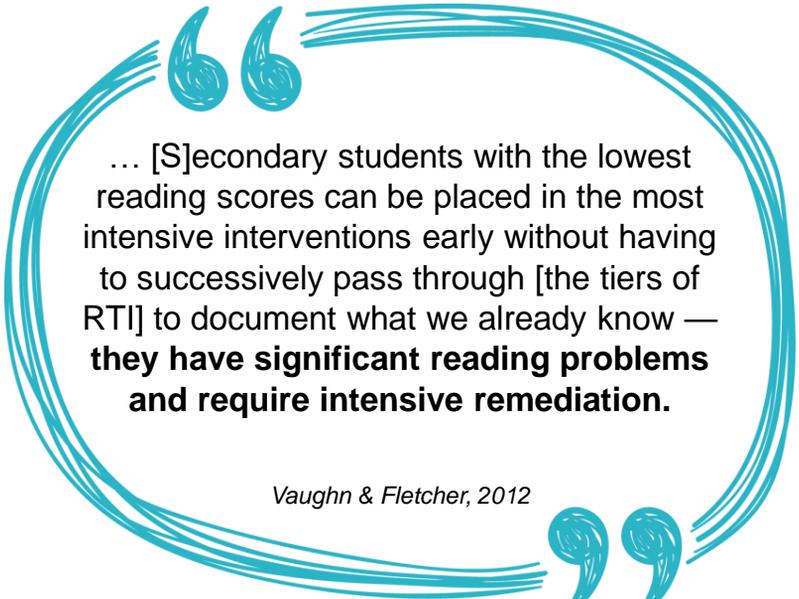


3 Tiers of Support

Based on information from Vaughn & Fletcher (2012). [Image source](#)

SREB

Students who are well below grade level in reading AND have poor decoding skills are those students who may have dyslexia. Not only do they need intensive intervention, but it needs to be specialized and based on one of the main multisensory approaches that's commercially available. The big three are Orton Gillingham, Wilson, and Barton, with Orton Gillingham being considered the gold standard for students with dyslexia.

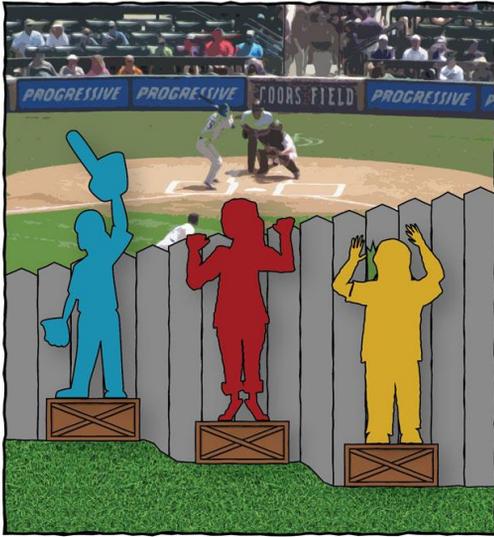


... [S]econdary students with the lowest reading scores can be placed in the most intensive interventions early without having to successively pass through [the tiers of RTI] to document what we already know — **they have significant reading problems and require intensive remediation.**

Vaughn & Fletcher, 2012

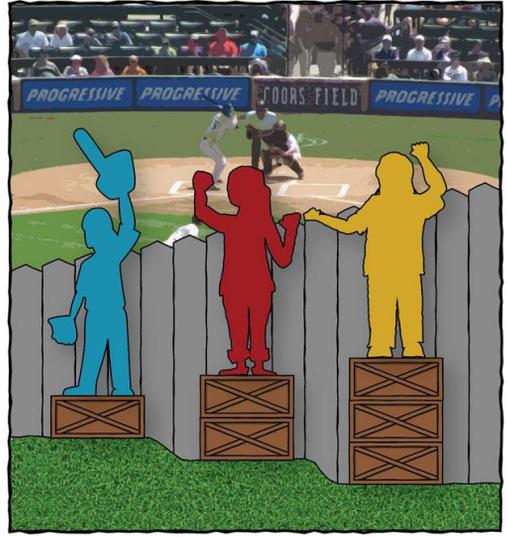
SREB

Researchers have pointed out that by the time they get to secondary school, students who are struggling with reading should have already received plenty of core instruction and extra support, too. So if they have still not mastered the reading skills they need, there's really no time to waste in helping them. If you have students who are multiple grade levels below where they should be in reading, it's a waste of time to put them through the typical RTI process where you have to spend at least 6 weeks in Tier 2 before you can move to Tier 3. Instead, the recommendation is that we figure out what it is they're missing and try to support them with those skills as soon as possible.



EQUALITY

[Image source](#)



EQUITY

There are accommodations that can help provide a more equitable classroom for students with dyslexia (and students with other learning difficulties). In fact, a lot of these will support *all* of your students and help remove some barriers to learning.

Students With Dyslexia

- General accommodations in the classroom
 - Explicit, verbal instructions along with written version
 - Graphic organizers and other planning tools
 - Use of audio or electronic versions of textbooks
 - Alternative methods of assessment (e.g. oral presentation instead of essay)
 - Peer notetaker who shares notes with dyslexic student



Based on information from Vaughn & Fletcher (2012).

SREB

These are some things you can do in any classroom for any student, but they are particularly helpful for students with dyslexia:

- Explicit, verbal instructions along with written version: If you hand out an assignment with written instructions on it, make sure to also read these instructions out loud.
- Graphic organizers and other planning tools: You're probably already using these to some extent. A large percentage of students with dyslexia also have general difficulties with executive function, so tools to help them organize what they are learning and tools for prewriting are beneficial.
- Use of audio or electronic versions of textbooks: An audiobook helps students with dyslexia because they can understand the content orally, instead of having to wade through the text. Students can use text-to-voice to get this same benefit from electronic textbooks.
- Alternative methods of assessment (e.g. oral presentation instead of essay): A good practice in general is to allow multiple ways for students to demonstrate learning, so allowing all of your students to choose between two or three options for an assessment not only provides a way for dyslexic students to really be able to show what they know — it also means there won't be any stigma for students who choose certain methods.

-Peer note-taker who shares notes with student: Students with dyslexia may need more time to write and have a hard time keeping up with a lot of information if they have to take notes. If there is a willing student in your classroom who's a good notetaker, you can see if they would be willing to share their notes with dyslexic peers.

Students With Dyslexia

- Accommodations in the classroom that may require a 504 plan
 - Extra time to complete assignments and assessments
 - Outline of instruction and/or copies of notes and presentations
 - Grade on content, not spelling or organization
 - Use of assistive technology
 - Text-to-speech
 - Dictation software
 - Tools for reading more effectively



Based on information from Vaughn & Fletcher (2012). [Image source](#)

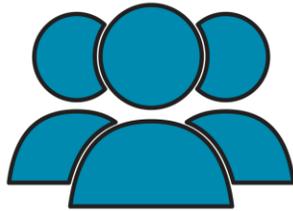
SREB

The most helpful accommodations for students with dyslexia may not be available to them unless their disability is documented through a 504 plan. A 504 plan entitles students to accommodations that help them access any parts of the school or classroom environment that are limited by their disability. Some states use 504 plans as the primary way to address dyslexia in their schools. Some common accommodations for students with dyslexia are:

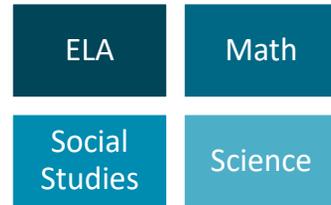
Intervention Challenges in Secondary Schools



Knowledge



Staff



Specialization

SREB

It's easier to talk about interventions for students with dyslexia and struggling readers in general than it is to actually put them in place because there are a variety of challenges to doing so, including a lack of knowledge of teaching the process of reading, no extra staff to provide intervention support, and the fact that secondary schools have content-specific courses — which means that teachers are specialized and have limited time with students each day.

Intervention Challenges in Secondary Schools



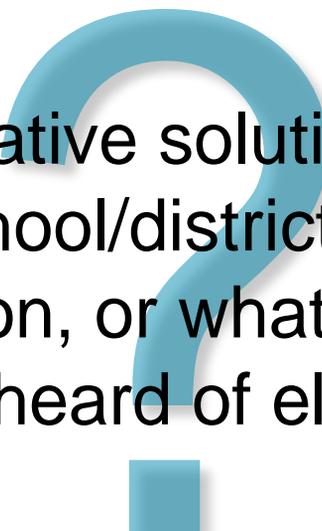
Scheduling



Funds

SREB

Other challenges are scheduling — when, exactly, is there time to provide intervention instruction? Especially if it's intensive, small-group instruction? And how in the world do you pay for the programs, staff, and training to provide intervention?



What creative solutions does your school/district use for intervention, or what solutions have you heard of elsewhere?

SREB

So think for a minute about how your school identifies and helps struggling readers as of right now. Do you do some sort of routine screening or data dive at the beginning of the year? How (and when) do the students you identify get extra support? Take about 30 seconds and think about this.

Solutions: Lack of Knowledge

- Faculty-wide training on dyslexia and supporting poor readers
 - Local or regional education agency
 - See www.sreb.org/dyslexia → Resources → Teacher Training Resources
 - Contact local private schools for students with disabilities
 - Contact local universities, especially those with dyslexia-specific offerings
 - Online options
 - [State professional development modules](#) (see Resources)
 - [Dyslexia International course](#) (free)

SREB

Following are some possible solutions to the challenges we just discussed. To address a lack of knowledge in your school about supporting struggling readers in general and students with dyslexia in particular, it would really be beneficial to have a faculty-wide training for all teachers. There are lots of ways to do this. Many states departments of education offer training through your local or regional education agency. Later in this presentation there's a slide with links to online training modules in those states that have them. Some states have one or more private organizations that can provide training to schools, and you can find a state-by-state list of these organizations by visiting sreb.org/dyslexia and locating the Teacher Training Resources page. This is a living webpage, so if you know of an organization that should be added please email me. You can also contact local private schools that cater to students with disabilities or local universities that have schools of education or dyslexia-specific course offerings. And if none of those is convenient or available, some states have online modules and there is a free course available through a nonprofit called Dyslexia International.

Solutions: Time and Scheduling

Middle school

- Required reading and writing elective
 - Extended Learning Time
 - Homeroom = intervention or extension time
- 

For students who need additional assistance to meet academic requirements, LMS offers a variety of options:

Dyslexic students- Reading instruction for identified dyslexic students will support the Language Arts Curriculum. This will be a required elective choice.

SREB

Scheduling challenges are big, but some districts are finding solutions. These are just some ideas — every school is different, and some creativity is probably required. This text is from Lufkin Middle School in Texas, and when I spoke with their dyslexia coordinator I asked her how students felt about having to take a required reading support elective to get dyslexia intervention. She said some of the students don't like it, but they tend to know that they need the help. And it's important for us to remember and communicate to students that the goal is to give them what they need to be successful in the long run.

Solutions: Time and Scheduling

High school

- Zero period
- Homeroom, “power hour”, study hall or advocacy time
- Credit-bearing ELA elective

SREB

In high school, some schools use a zero period for intervention, or provide it during homeroom, some sort of “power hour”, or advocacy time. Any time built into your school schedule for students to address any individualized needs could be a good time for intervention. Some schools offer a required, credit-bearing elective for students who are really struggling with reading.

Course Title:	Academic Reading
Course/Unit Credit:	1
Type of Credit:	Miscellaneous Career Focus Credit
Course Number:	419130
Teacher Licensure:	In addition to holding an Arkansas teaching license for grades 9-12, the teacher must also be a trained dyslexia interventionist as outlined in Arkansas law: Ark. Code Ann. § 6-41-601 et seq. Please refer to the Course Code Management System (https://adedata.arkansas.gov/ccms/) for the most current licensure codes.
Grades:	9-12
Students:	Students in this course must be identified to receive dyslexia intervention according to Arkansas dyslexia law Arkansas Code Annotated § 6-11-105, §§ 6-41-601 through 6-41-610 and rule found at http://www.arkansased.gov/divisions/legal/rules/current .
Class Size:	Class size limited to no more than 10 students. If the dyslexia program the district has selected recommends a smaller class size, the dyslexia program guidelines must be followed.

Academic Reading

Academic Reading is a two-semester course designed to accelerate reading growth for students with dyslexia by strengthening comprehension outcomes in high school grades. The teacher will implement a dyslexia program with fidelity that meets the requirements of Arkansas dyslexia law and rule to teach the standards of this course. In a context of meaningful content, on-going assessment, and focused explicit instruction, students will evaluate fiction and nonfiction texts and multicultural literature of diverse formats (e.g., print media, Web-based texts, fiction and nonfiction books and articles) and genres. In addition, students will engage in differentiated learning activities tied to a variety of fiction and nonfiction texts with increasing complexity. Students will also demonstrate literacy competence through purposeful application of knowledge and skills from this course, based on individual and collective literacy goals. Academic Reading does not require Arkansas Department of Education approval.

Arkansas created a state-recognized course for high schoolers with dyslexia who need time in the school day for intensive intervention. It’s credited as a “Miscellaneous Career Focus Credit”, which is an elective credit that counts toward state requirements for graduation.

Solutions: Funding for Training and Programs

- Title I funds
 - School improvement initiatives
 - Direct student services: components of a personalized learning approach (may include “high-quality academic tutoring”)
 - Prevention and intervention for at-risk youth
 - Schoolwide program funds



Sources: [Iowa Reading Research Center](#), [EveryStudentSucceedsAct.org](#), and [Washington County School District](#)

Now, in terms of funding — and I’m talking to anyone who is an administrator or works in the district now — this *really* requires some creativity to figure out how you can use the various federal funding streams to pay for intervention services. The biggest and most obvious pot of money for a lot of schools is Title I, and Title I also has the least restrictions out of any of the federal options. You can use Title I money for school improvement initiatives, direct student services (like academic tutoring), and prevention and intervention programs for students at risk of dropping out of school. If you’re a schoolwide Title I school, it might be even easier to justify using Title I funds for intervention staff or programs.

Solutions: Funding for Training and Programs

- Title II funds
 - Ongoing professional development
 - Peer coaching and peer-led professional development

States and districts may transfer up to 100% of Title II funds to Title I

Sources: [Iowa Reading Research Center](#), [ASCD](#) and [U.S. Department of Education](#)

SREB

Another possible federal source of funds is Title II, which can be used for certain types of professional development and coaching.

Solutions: Funding for Training and Programs

- Title III funds
 - Professional development for teachers who teach ELLs
 - Purchasing intervention programs for use by ELLs
 - Services provided before, during and after school (e.g. tutoring) to ELLs

Sources: [Iowa Reading Research Center](#) and [Maryland Department of Education](#)

SREB

Then there's Title III, which is specifically for English Language Learners — but a lot of the strategies and interventions used for ELLs are beneficial for struggling readers, too, and if you are providing an intervention program or tutoring to ELLs using Title III funds you may be able to use these for some non-ELL students as well.

Solutions: Funding for Training and Programs

- Title IV funds
 - Professional development to personalize learning and improve academic achievement
 - Building technological capacity and infrastructure
 - Delivering specialized curricula using technology

States and districts may transfer up to 100% of Title IV funds to Title I

Source: [US Department of Education](#) and [ASCD](#)

SREB

There's also Title IV, which may be useful for professional development and certain technology, like assistive technology.

Solutions: Funding for Training and Programs

- IDEA funds (*generally only for students who have IEPs*)
 - Supplementary aids and services to support the least restrictive environment
 - Professional development for general education teachers who teach students with disabilities
 - Reading instructional programs used by students with disabilities

May be merged with Title I funds in schoolwide Title I program

Sources: [Iowa Reading Research Center](#) and [March 7, 2013 OSEP Memo](#)

SREB

And finally, our last federal source of funds is IDEA funds. Most of these funds can only be used for things that apply to students in special education, but sometimes these services or professional development benefit other students, too.

Solutions: Funding for Training and Programs

- IDEA funds: Coordinated Early Intervening Services
 - For K-12 students not in special education
 - Professional development for academic and behavioral interventions
 - Professional development for adaptive and instructional software
 - Providing instructional supports, including “scientifically based literacy instruction”
 - Reading specialists
 - Tutoring

Source: [July 28, 2018 OSEP Memo](#)

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And IDEA also allows states and districts to use up to 15% of their total IDEA funds for Coordinated Early Intervening Services for students who are not in special education. CEIS funds can be used for professional development and instructional supports for at-risk students.

Solutions: Funding for Training and Programs

- Apply for private or public grants
 - [Federal grants](#)
 - State grants (e.g. Texas 2018-19 Services to Students with Dyslexia Grant)
 - Private grants from local or national foundations
- District funding

Sources: [Iowa Reading Research Center](#) and [March 7, 2013 OSEP Memo](#)

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Lastly, you can also seek out federal or state grant money or private grants from foundations. Or, your district could fund intervention.



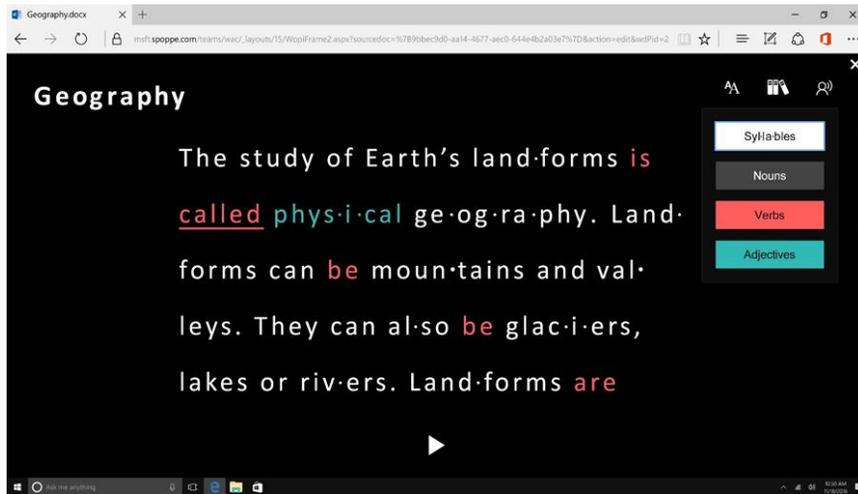
Following are a ton of resources, including assistive technology applications, screening tools, intervention programs and some suggested reading.

Accessibility Tools

Text-To-Speech Supports for reading and understanding text	Writing and Editing Supports for writing and editing text	Accessible Materials Ebooks and audiobooks
Microsoft Word 2016 <ul style="list-style-type: none"> • Speak command • Learning Tools for desktop, including Read Aloud, Text Spacing, and Syllables • Learning Tools online, including Immersive Reader and Line Focus 	Microsoft Word 2016 <ul style="list-style-type: none"> • Grammarly • Dictate voice-to-text extension • Researcher • Lucidchart add-in • Paper and report templates • Outline function • Edraw graphic organizer templates 	Textbooks and Literature <ul style="list-style-type: none"> • Bookshare.org • Lit2Go • Project Gutenberg • Learning Ally (paid service; free for students with print disabilities in TX and FL) • Librivox • Open Library
Microsoft Edge browser <ul style="list-style-type: none"> • Read Aloud • Reading View • Read&Write (free for teachers) 	Google Docs (only in Chrome) <ul style="list-style-type: none"> • Voice typing • Grammarly • Read&Write (free for teachers) 	Novels <ul style="list-style-type: none"> • Epic! (free for elementary teachers) • Open Library
Google Chrome browser <ul style="list-style-type: none"> • Read&Write (free for teachers) • SpeakIt! • Grammarly • Readability Redux 	iPad and iPhone <ul style="list-style-type: none"> • Auto-Correction and Predictive Text • Dictation • Grammarly Keyboard • Read&Write (free for teachers) 	Content and News Articles <ul style="list-style-type: none"> • ReadWorks • Newsela
iPad and iPhone <ul style="list-style-type: none"> • Speak Selection • Speak Screen 	Android <ul style="list-style-type: none"> • Grammarly Keyboard • Read&Write (free for teachers) • Voice typing 	Universal Design for Learning Resources <ul style="list-style-type: none"> • CAST Book Builder • CAST Studio • CAST Exchange
Android <ul style="list-style-type: none"> • Select to Speak • SpeakIt! 		

Adapted from information provided by Debbie Brineman and Joyce Derr, [Georgia IDA Conference 2018](#)

Microsoft Immersive Reader (Microsoft Word Online and OneNote Online)



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Read&Write Extension (Edge, Chrome, Word Online, iOS, Android)

Home » Learn the Basics

Learn the Basics

The Earth's climate is changing, and people's activities are the main cause.



Our world is always changing. **Look out your window long enough, and you might see the weather** change. Look even longer, and you'll see the seasons change. The Earth's climate is changing, too, but in ways that you can't easily see.

The Earth is getting **warmer** because people are adding **heat-trapping gases to the atmosphere, mainly by burning fossil fuels. These gases are called greenhouse gases.** Warmer temperatures are causing other changes around the world, such as melting glaciers and stronger storms. These changes are happening because the **Earth's air, water, and land are all linked to the climate. The Earth's climate has changed before, but this time is different.** People are causing these changes, which are bigger and happening faster than any climate changes that modern society has ever seen before.

- ★ [Learn more about the climate.](#)
- ★ [Find out how and why the climate is changing.](#)

TAKE A CLIMATE CHANGE EXPEDITION!
join us!

The Greenhouse Effect

Certain gases in the atmosphere keep the Earth warm through a process called the greenhouse effect. Watch a brief animation to learn more about the greenhouse effect and how people are causing it to become stronger.

did you know?

Together, transportation and producing electricity cause more than 60 percent of the greenhouse gas

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Read&Write Extension (Edge, Chrome, Word Online, iOS, Android)

The screenshot shows the Microsoft Word Online interface with the Read&Write extension active. The extension is open, displaying a document titled "History of the Olympic Games" and a dictionary for the word "written".

Document Content:

History of the Olympic Games

Abstract taken from www.olympic.org

Olympia, cradle of the Olympic Games

The Olympic Games as we know them today have a long history which goes back to ancient times.

Everything star

Sports competitions were organized at Olympia and were named after their location, hence their name of *Olympic Games*. Nobody knows exactly when they began, but the date of 776 BC is often referred to as the first **written** mention of the competitions.

These Games were held at the same place, every four years. This four-year period acquired the name "Olympiad", and was used as a date system: time was counted in Olympiads, rather than years.

The Panhellenic Games

Grammarly (Google Chrome and Docs)

One thing I have discovered, however, is that not all spell checkers are created equal. And, while most do a good job catching obvious misspellings, that is pretty much all they do well.

Enter Grammarly. Grammarly is a tool many of you may be familiar with, but many others may not have tried. Grammarly goes a step beyond most other spell checkers. In fact, it not only check your spelling, but also correct grammar mistakes as your write. Let's take a look at a few examples.

When typing in programs like Gmail or WordPress, misspelled words and grammatical mistakes will be underlined with a red line. By simply hovering over the underlined word, a window will open that contains an explanation of the mistake and the suggested correction.

In the screenshot below, we see that Grammarly has caught the use of "their" rather than "there" and suggested the use of the correct word. By clicking on the green word "there" in the window, the change will be made for you. This is a great example of a mistake that is often overlooked by other spell checkers; most would not catch an improperly used word if it was spelled correctly.

281 WORD 12 CRITICAL ISSUES

The screenshot displays the Grammarly interface. On the left is a dark sidebar with icons for home, search, and document. The main text area contains three paragraphs. The second paragraph has the word "underlined" underlined in red. A tooltip window is open over this word, showing the error "Overused word: underlined" and suggesting the word "highlighted" in green. Above the tooltip, a list of other errors is visible: "Faulty parallelism", "WordPress/" (with a red slash), "words,", and "Passive voice". At the bottom of the interface, a status bar shows "281 WORD" and "12 CRITICAL ISSUES".

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Researcher (Microsoft Word)

The Amazon Rainforest

The Amazon Rainforest is an expansive forest located in the Amazon Basin. The forest covers an area approximately as large as the 48 contiguous United States. (Field Museum Scientists Estimate 16,000 Tree Species in the Amazon) Contained within it is a dizzying array of distinct tree species – approximately 16,000 different species in total – many of which have fewer than 1,000 living trees. Because of this, its dense animal biodiversity, its higher taxonomic uniqueness, and the rarity of the habitat, the Amazon is also considered to be a distinct ecoregion. (Amazon Rainforest, Amazon Plants, Amazon River Animals)

Deforestation

Unfortunately, though deforestation is now widely discussed, the systematic deforestation of the rainforest has increased since 1996. (Margulis) The majority of deforestation is often driven by a desire for cattle ranching, which has proven to be an enticing business for many in the area, and includes many entrepreneurs and intermediaries who benefit, often at the cost of more broad-based social improvement. (Margulis)

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Amazon Rainforest, Amazon Plants, Amazon River Animals. 2016. World Wildlife Fund. 9 May 2016. <<http://www.worldwildlife.org/biomes>>.

Field Museum Scientists Estimate 16,000 Tree Species in the Amazon. 17 October 2013. 9 May 2016. <http://www.eurekalert.org/pub_releases/2013-10/fm-fms101413.php>.

Margulis, Sergio. "Causes of Deforestation of the Brazilian Amazon." 2004. 9 May 2016. <<http://www.treysresearch.net/Y0741BPV/277150PAPER0/bwp0no1022.pdf>>.

Researcher

amazon rainforest

Amazon rainforest

Wikipedia: The Amazon rainforest, covering much of northwestern Brazil and extending into Colombia, Peru and other South American ...

Read Save Link Cite

Research sources Filter

Website Biodiversity (12)

Field Museum scientists estimate 16,000 tree species in the Amazon

http://www.eurekalert.org/pub_releases/

Read Save Link Cite

Article Deforestation (6)

Causes of Deforestation of the Brazilian Amazon

The World Bank

Read Save Link Cite

Article History (18)

New view on an old forest: assessing the longevity, resilience and future of the Amazon

100%

Assessment Tools for Secondary Students

Test	Skills Assessed	Administration Format	Time to Administer	Publisher
Ekwall/Shanker Reading Inventory (ESRI)	Phonemic Awareness Phonics Fluency Vocabulary Comprehension	Individual Group	Not specified	Pearson
Flynt/Cooter Comprehensive Reading Inventory 2 <i>(includes Spanish version)</i>	Phonemic Awareness Phonics Fluency Vocabulary Comprehension	Individual	Varies	Pearson
Bader Reading & Language Inventory, 7th Ed.	Phonemic Awareness Phonics Fluency Vocabulary Comprehension	Individual	Varies	Pearson

Based on information from [Winterbottom & Howard \(2005\)](#), [Winterbottom \(2008\)](#) and [RTInetwork.org](#)

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Assessment Tools for Secondary Students

Test	Skills Assessed	Administration Format	Time to Administer	Publisher
Qualitative Reading Inventory (QRI-6)	Decoding Fluency Comprehension	Individual	Not specified	Pearson
Lexia RAPID Assessment	Word Recognition Vocabulary Comprehension	Individual	10 – 15 minutes	Lexia
Group Reading Assessment and Diagnostic Evaluation (GRADE)	Vocabulary Fluency Comprehension	Group	50 – 90 minutes	Pearson
Gates MacGinitie Reading Test, 4th Ed.	Vocabulary Comprehension	Group	35 minutes per subtest (70 minutes for both)	Nelson

Based on information from [Winterbottom & Howard \(2005\)](#), [Winterbottom \(2008\)](#) and [RTInetwork.org](#)

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Assessment Tools for Secondary Students

Test	Skills Assessed	Administration Format	Time to Administer	Publisher
Test of Silent Word Reading Fluency (TOSWRF-2)	Fluency Vocabulary	Group	3 minutes	PRO-ED
Quick Phonics Screener	Phonics Decoding	Individual Group	Not specified	Read Naturally
The Phonics Inventory	Phonics	Individual (computer-based)	10 minutes	Houghton Mifflin Harcourt
Test of Word Knowledge (TOWK)	Vocabulary	Individual	30 – 60 minutes	Pearson

Based on information from [Winterbottom & Howard \(2005\)](#), [Winterbottom \(2008\)](#) and [RTInetwork.org](#)

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Assessment Tools for Secondary Students

Test	Skills Assessed	Administration Format	Time to Administer	Publisher
Kaufman Test of Educational Achievement (KTEA-3)	Decoding Vocabulary Fluency Comprehension	Individual	15 – 85 minutes	Pearson*
Diagnostic Assessment of Reading (DAR)	Decoding Vocabulary Comprehension	Individual	10 – 30 minutes	PRO-ED*
Test of Word Reading Efficiency (TOWRE-2)	Decoding Word Recognition	Individual	5 – 10 minutes	PRO-ED*
Gray Oral Reading Test (GORT-5)	Fluency Comprehension	Individual	10 – 15 minutes	PRO-ED*

* Must be purchased and administered by a qualified professional with training in assessment.

Based on information from [Winterbottom & Howard \(2005\)](#), [Winterbottom \(2008\)](#) and [RTInetwork.org](#)

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Assessment Tools for Secondary Students

Test	Skills Assessed	Administration Format	Time to Administer	Publisher
Woodcock Reading Mastery Tests (WRMT-3)	Decoding Comprehension	Individual	15 – 45 minutes	Pearson*
Comprehensive Test of Phonological Processing (CTOPP-2)	Phonemic Awareness	Individual	40 minutes	Pearson*
Peabody Picture Vocabulary Test (PPVT-4)	Vocabulary	Individual	10 – 15 minutes	Pearson*
Test of Reading Comprehension (TORC-4)	Comprehension	Individual	30 – 45 minutes	PRO-ED*

* Must be purchased and administered by a qualified professional with training in assessment.

Based on information from [Winterbottom & Howard \(2005\)](#), [Winterbottom \(2008\)](#) and [RTInetwork.org](#)

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Intervention Programs for Secondary Students

Program	Grades	Description	Time	Research-based Practices	PA	P	F	V	C
Corrective Reading Decoding® McGraw Hill Education	3 – 12	<ul style="list-style-type: none"> Supplemental reading intervention Targets phonemic awareness, phonics, and vocabulary to increase decoding skills 	45 – 50 min/day	<ul style="list-style-type: none"> Direct instruction Systematic and explicit Mastery-based learning Progress monitoring 	★	★	✓	★	✓
Corrective Reading Comprehension® McGraw Hill Education	3 – 12	<ul style="list-style-type: none"> Supplemental reading intervention Targets phonemic awareness, phonics, and vocabulary to increase decoding skills 	45 – 50 min/day	<ul style="list-style-type: none"> Direct instruction Systematic and explicit Mastery-based learning Progress monitoring 				★	★
*Just Words® Wilson Language Training	4 – 12	<ul style="list-style-type: none"> Supplemental reading program Based on Wilson Reading System principles Used as an accelerated intervention for teaching decoding and encoding 1-1.5 years to complete the program 	45 – 50 min/day or 3x per week	<ul style="list-style-type: none"> Direct instruction Systematic and explicit Based on Orton-Gillingham principles Multi-sensory Mastery learning Progress Monitoring 	★	★	★	✓	✓

PA = Phonemic Awareness

P = Phonics

F = Fluency

V = Vocabulary

C = Comprehension

★ Covers most or all aspects of this component of reading

✓ Covers some aspects of this component of reading

* Program has evidence of effectiveness for students with dyslexia

Adapted from [Description of Specialized Reading Programs](#), Fairfax County Public Schools

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Intervention Programs for Secondary Students

Program	Grades	Description	Time	Research-based Practices	PA	P	F	V	C
*Language! [™] VoyagerSopris Learning [™]	4 – 12	<ul style="list-style-type: none"> • Comprehensive literacy curriculum • Includes fiction and nonfiction • Teacher-directed • Supplemental online activities 	90 min/day or 45 min/day	<ul style="list-style-type: none"> • Differentiated • Systematic and Explicit • Sequential • Multisensory • Diagnostic • Progress monitoring 	★	★	★	★	★
*Language! Live! [™] VoyagerSopris Learning [™]	7 – 12	<ul style="list-style-type: none"> • Comprehensive literacy curriculum • Includes fiction and nonfiction • Blended learning • Students require daily access to computers 	90 min/day or 45 min/day	<ul style="list-style-type: none"> • Differentiated • Systematic and Explicit • Sequential • Multisensory • Diagnostic • Progress monitoring 	★	★	★	★	★
Read Naturally! [™]	1 – 8	<ul style="list-style-type: none"> • Supplemental fluency program • Audio and software versions • Nonfiction stories 	30 min/day	<ul style="list-style-type: none"> • Teacher modeling • Repeated readings • Progress monitoring 			★		✓

PA = Phonemic Awareness

P = Phonics

F = Fluency

V = Vocabulary

C = Comprehension

★ Covers most or all aspects of this component of reading

✓ Covers some aspects of this component of reading

* Program has evidence of effectiveness for students with dyslexia

Adapted from [Description of Specialized Reading Programs](#), Fairfax County Public Schools

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Intervention Programs for Secondary Students

Program	Grades	Description	Time	Research-based Practices	PA	P	F	V	C
Read to Achieve® McGraw Hill Education	6 – 12	<ul style="list-style-type: none"> Focuses on comprehension, decoding multisyllabic words, content vocabulary and fluency in content-area text Encourages collaborative learning 	45 – 55 min/day	<ul style="list-style-type: none"> Direct instruction Systematic and explicit Sequential Mastery-based learning Progress monitoring 			★	★	★
Reading Success® McGraw Hill Education	4 – 12	<ul style="list-style-type: none"> Focuses on critical reading and comprehension Brief, targeted lessons 	15 – 30 min/day or 3x per week	<ul style="list-style-type: none"> Direct instruction Systematic and explicit Sequential Mastery-based learning Progress monitoring 				★	★
REWARDS® Voyager Sopris Learning	4 – 12	<ul style="list-style-type: none"> 25 lessons Targeted instruction for decoding multisyllabic words 	60 min/day for 6 weeks or 30 min/day for 12 weeks	<ul style="list-style-type: none"> Direct instruction Systematic and explicit Intensive Progress monitoring 		✓	★	✓	✓
REWARDS Plus® Voyager Sopris Learning	7 – 12	<ul style="list-style-type: none"> Apply REWARDS strategies to social studies and science Addresses test-taking skills, comprehension, and writing 	60 min/day or 30 min/day	<ul style="list-style-type: none"> Direct instruction Systematic and explicit Intensive Progress monitoring 		✓	★	✓	✓

PA = Phonemic Awareness

P = Phonics

F = Fluency

V = Vocabulary

C = Comprehension

★ Covers most or all aspects of this component of reading

✓ Covers some aspects of this component of reading

* Program has evidence of effectiveness for students with dyslexia

Adapted from [Description of Specialized Reading Programs](#), Fairfax County Public Schools

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More Intervention Programs for Secondary Students

These programs demonstrate strong evidence of effectiveness according to Evidence for ESSA, a new resource that analyzes and compiles research on educational programs in the style of the What Works Clearinghouse.

Program	Grades	Description
TeenBizBoost® and EmpowerBoost® by Achieve 3000®	6 – 12	<ul style="list-style-type: none"> • Online platform; requires computer or mobile device • Differentiated instruction and adaptive progression • English and Spanish content • Teaches metacognitive skills • Uses nonfiction science and social studies content and academic vocabulary to improve skills • Progress monitoring
Reading Edge by Success for All	6 – 8	<ul style="list-style-type: none"> • Whole-school model • Emphasizes cooperative, team-based learning • Teaches metacognitive skills for comprehension • Integrates social-emotional instruction
READ 180®	4 – 12	<ul style="list-style-type: none"> • Blended learning program • Adaptive, computer-based elements • Explicit and systematic instruction • Focuses on background knowledge, vocabulary and reading comprehension • Integrates project-based learning

Based on information from [Evidence for ESSA](#) and program websites.

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More Intervention Programs for Secondary Students

These programs demonstrate strong evidence of effectiveness according to Evidence for ESSA, a new resource that analyzes and compiles research on educational programs in the style of the What Works Clearinghouse.

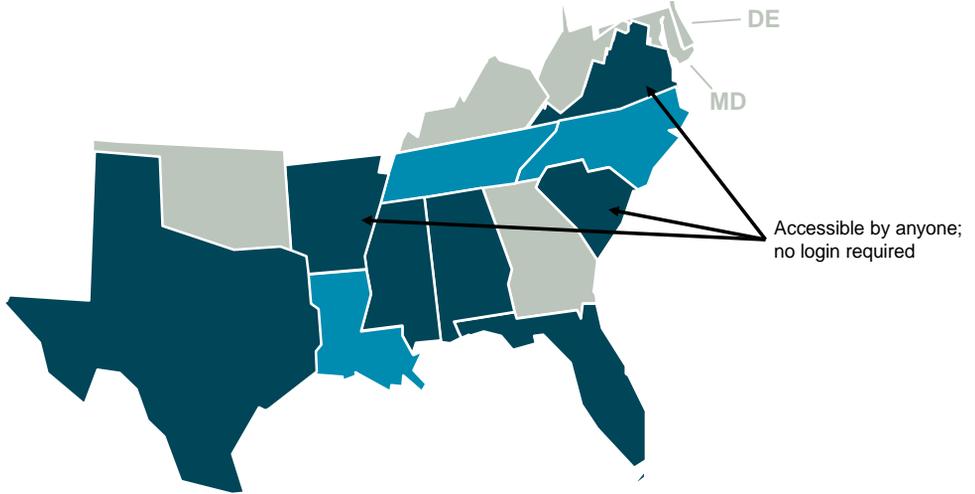
Program	Grades	Description
Reading Apprenticeship	6 – 12	<ul style="list-style-type: none"> • Framework for integrating metacognitive strategy instruction into content areas • Builds disciplinary-specific literacy skills • Integrates social-emotional instruction • Program version for struggling readers is taught as an elective course
Intelligent Tutoring for the Structure Strategy (ITSS)	4 – 8	<ul style="list-style-type: none"> • Web-based tutoring system • Mastery-based progression • Focuses on using text structure to improve reading comprehension
Passport Reading Journeys™	6 – 12	<ul style="list-style-type: none"> • Supplemental literacy curriculum • Integrates whole-group, small-group and individualized instruction • Focuses on word study, fluency, vocabulary, comprehension and writing • Emphasis on explicit, systematic instruction • Program version for struggling readers is taught as an elective course

Based on information from [Evidence for ESSA](#) and program websites.

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Online State Training Modules on Dyslexia

(Click on your state if shaded **dark blue** to visit link)



States in **light blue** offer in-person professional development, but we were unable to locate any online training resources. Contact your local or regional education agency for more information.

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Questions or
Comments?

Email: Samantha.Durrance@sreb.org

More info: www.sreb.org/dyslexia

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Resources on Reading Instruction and Dyslexia

- A very accessible [interview](#) with a neuroscientist about dyslexia
- IDA [Fact Sheet](#) on structured literacy
- Alabama SDOE: [Multisensory Strategies for All Secondary Classrooms](#)
- [Morphology activities](#) produced by the Florida Center for Reading Research

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Suggested Reading

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