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

Samantha Durrance Policy Analyst, SREB

July 2018 32nd Annual High Schools That Work Conference



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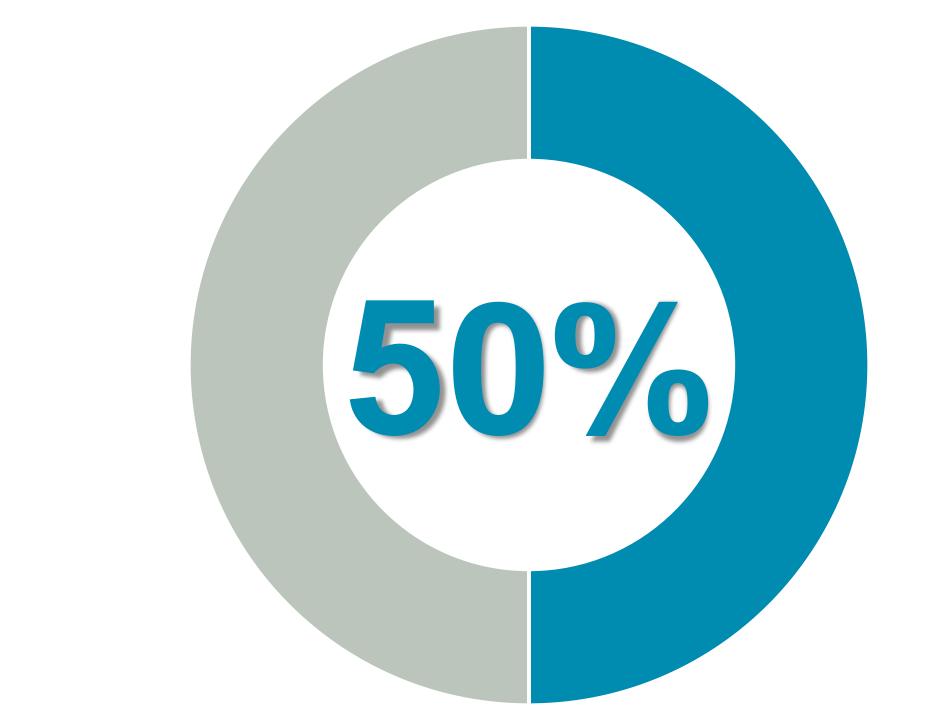
WHAT?

#### 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

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

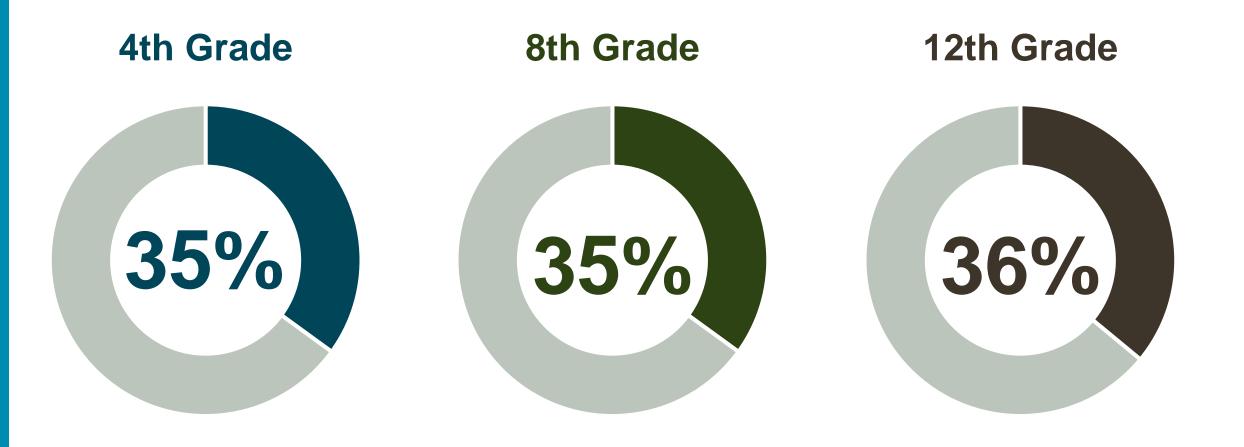
**SREB** 



SREB

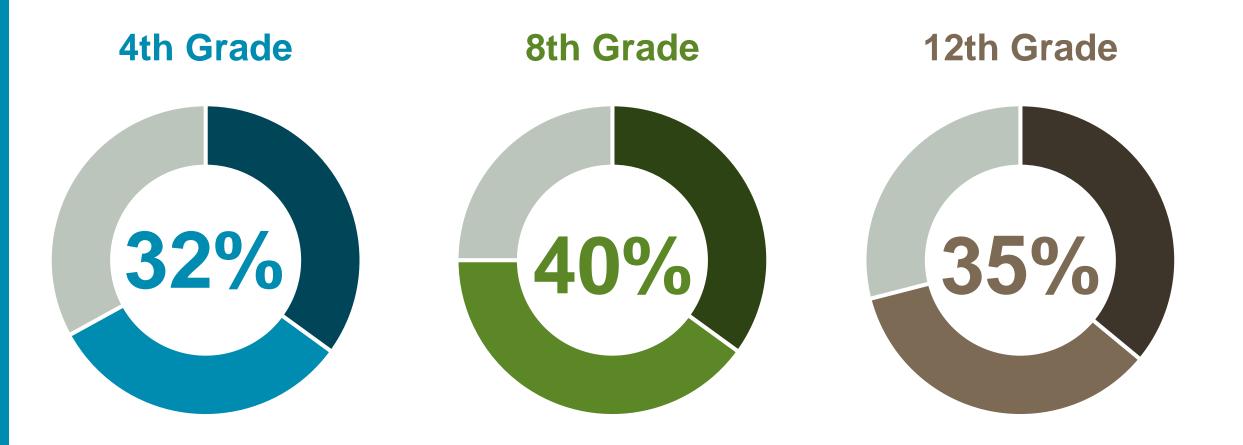
## It starts early.

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



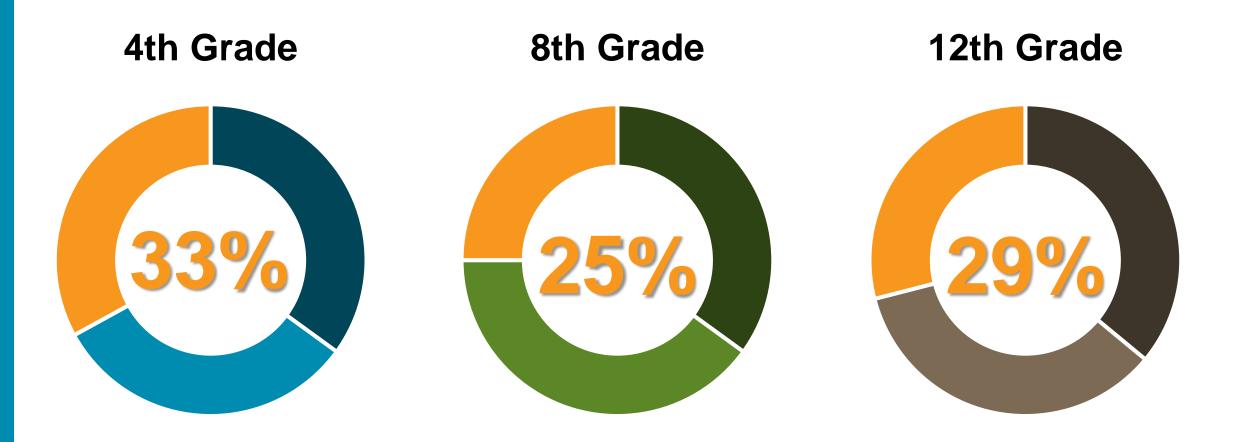


#### U.S. Students Performing At Basic on NAEP in Reading, 2017

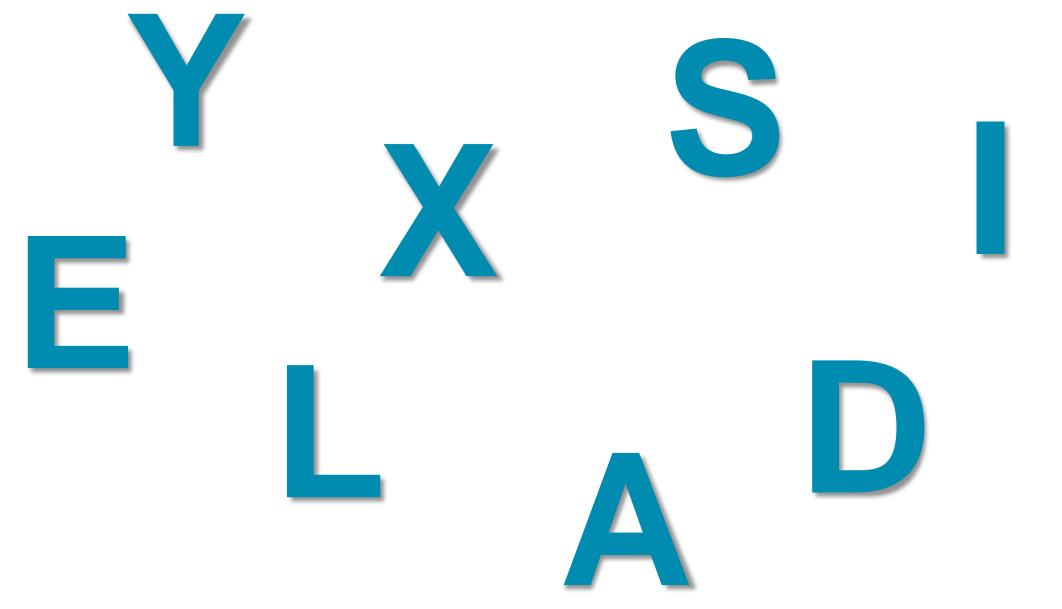




U.S. Students Performing **Below Basic** on NAEP in Reading, 2017







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## Reflect...

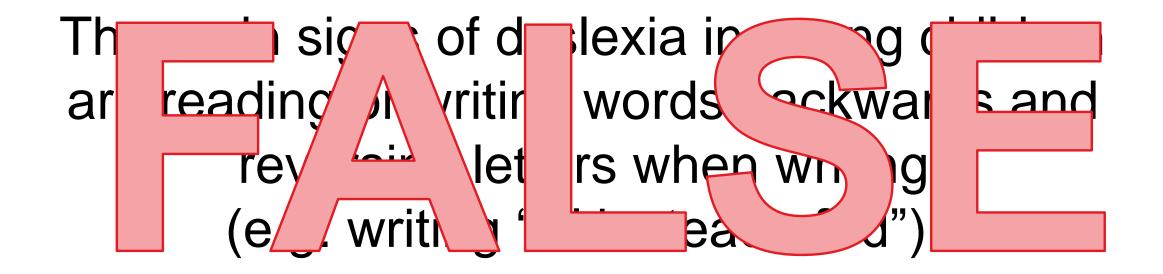


## TRUE or FALSE?



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").







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.

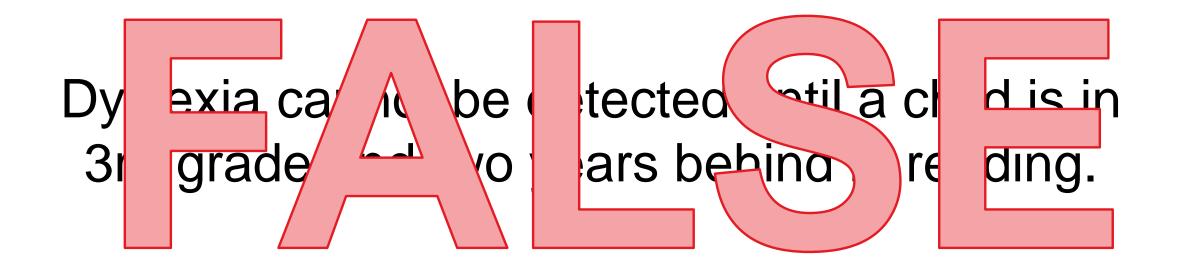


Some of the first signs of possible dyslexia in young children are seen in oral language: trouble rhyming, limited vocabulary, or mispronouncing common words.



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







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

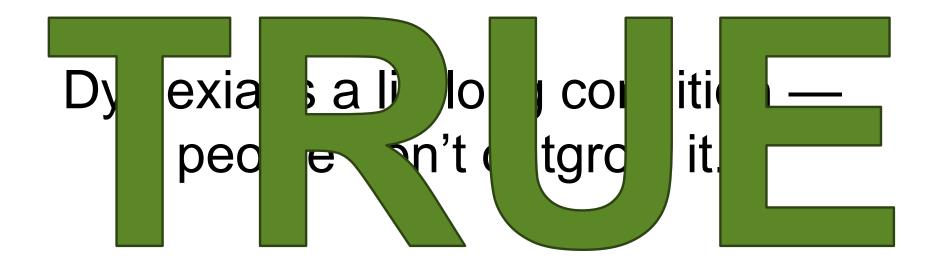


# Weaknesses in specific reading skills that are associated with dyslexia can be detected in kindergarten and first grade.



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







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

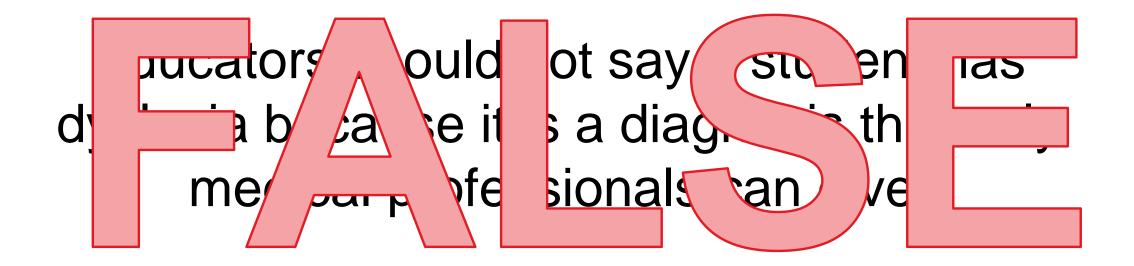


However, early intervention can help individuals with dyslexia learn to read better and help rewire key connections in the brain.



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







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



# 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.



# Questions?





### 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

#### **Effective Readers**

#### **Person with Dyslexia**

Parieto-temporal word meaning, link between spoken and written language (decoding)



#### Occipito-temporal

mapping familiar words as images, identification of letters, rapid recognition (fluency) Inferior frontal gyrus (Broca's area) formation of speech sounds, articulation

Image adapted from Shaywitz, Overcoming Dyslexia

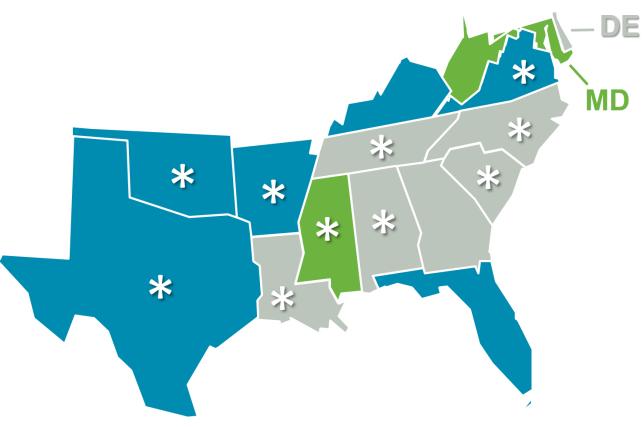
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Source: <u>Reading Horizons</u>

## At least $1 \parallel 1 \mid 0$ people are thought to be affected by dyslexia



#### **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 dyslexia<sup>1</sup>
- \* 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 - 3<sup>1</sup>
- Legislation with new requirements for screening or training was proposed in the state's 2018 legislative session, but did not pass

<sup>1</sup> In 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.

#### Signs of Dyslexia in Secondary Students

Strengths	<ul> <li>A high level of understanding of text that is read aloud</li> <li>Talent for high-level conceptualization and original insights</li> <li>Strong in areas not dependent on reading, such as math, use of computers, and visual arts</li> </ul>
General Difficulties	<ul> <li>Has to study more than peers</li> <li>Has low self-esteem or anxiety</li> <li>Has trouble finishing tests on time; tests do not fully reflect knowledge</li> </ul>
Reading, Writing & Spelling Difficulties	<ul> <li>Reading requires great effort and is at a slow pace</li> <li>Avoids reading aloud</li> <li>Has poor spelling and/or handwriting</li> <li>Avoids writing; compositions are brief and simplistic</li> <li>Word processed compositions can be disorganized and lack cohesion</li> </ul>
Speaking Difficulties	<ul> <li>Pauses or hesitates when speaking, using words like <i>um</i> and <i>like</i> repeatedly</li> <li>Uses imprecise language; for example, <i>stuff</i> or <i>things</i></li> <li>Needs extra time to respond to questions</li> <li>Oral language abilities much higher than writing skills</li> <li>Spoken vocabulary is smaller than listening vocabulary</li> <li>Has difficulty remembering names of people and places; confuses names that sound alike</li> </ul>

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



# DYSTEMBSOFTEMORD



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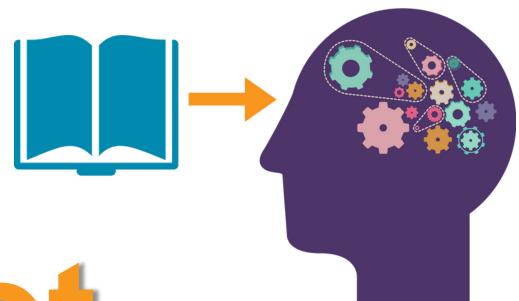
# What do you know about teaching young children to read?







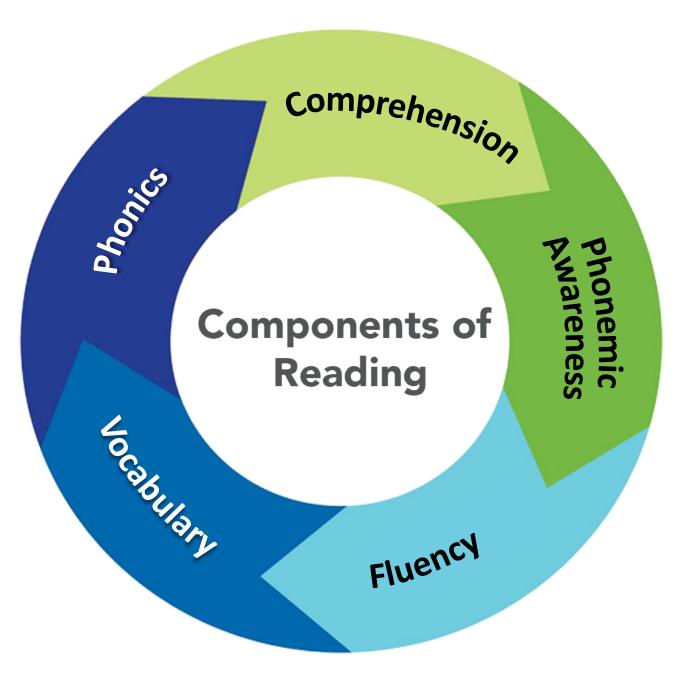




# is not

# a natural process

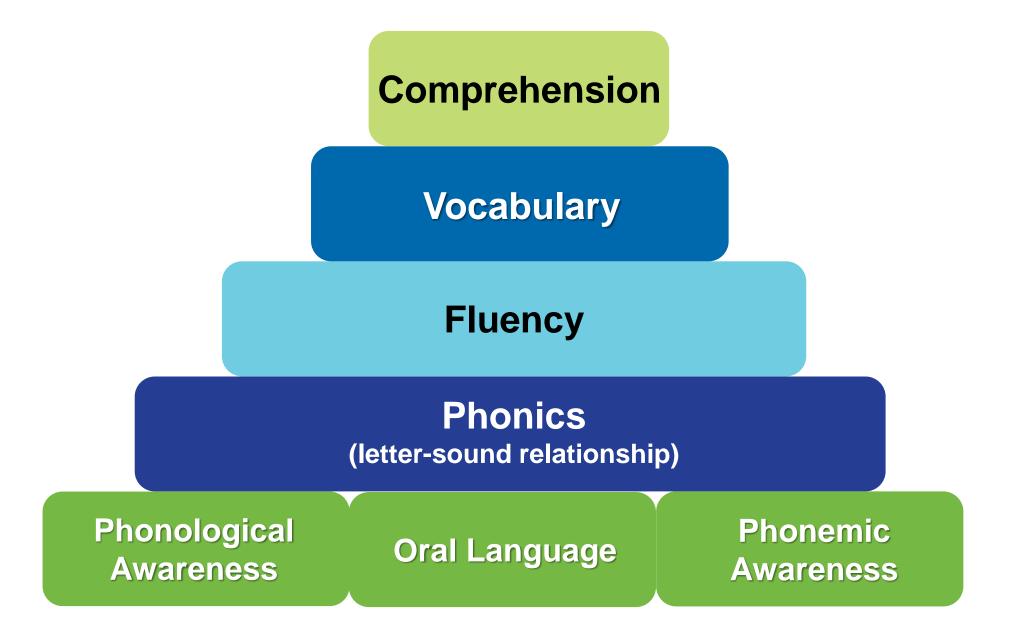






Adapted from the Florida Center for Reading Research

### **Building Reading Proficiency**



**SREB** 

### THE BUILDING BLOCKS OF PHONOLOGICAL AWARENESS

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

LISTENING



### The building blocks of Phonemic Awareness

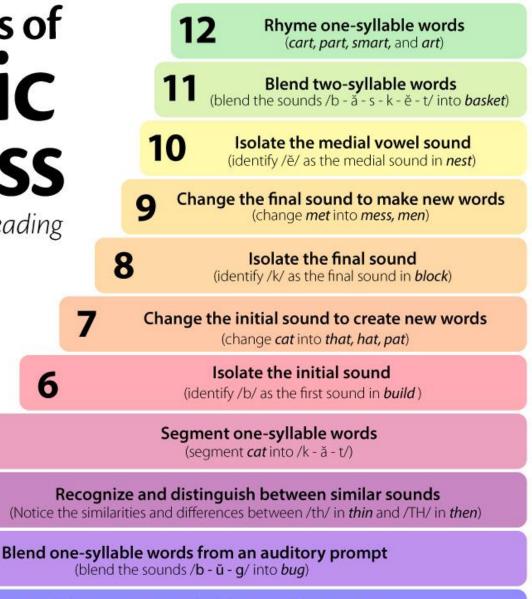
Laying a strong foundation for reading

5

4

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

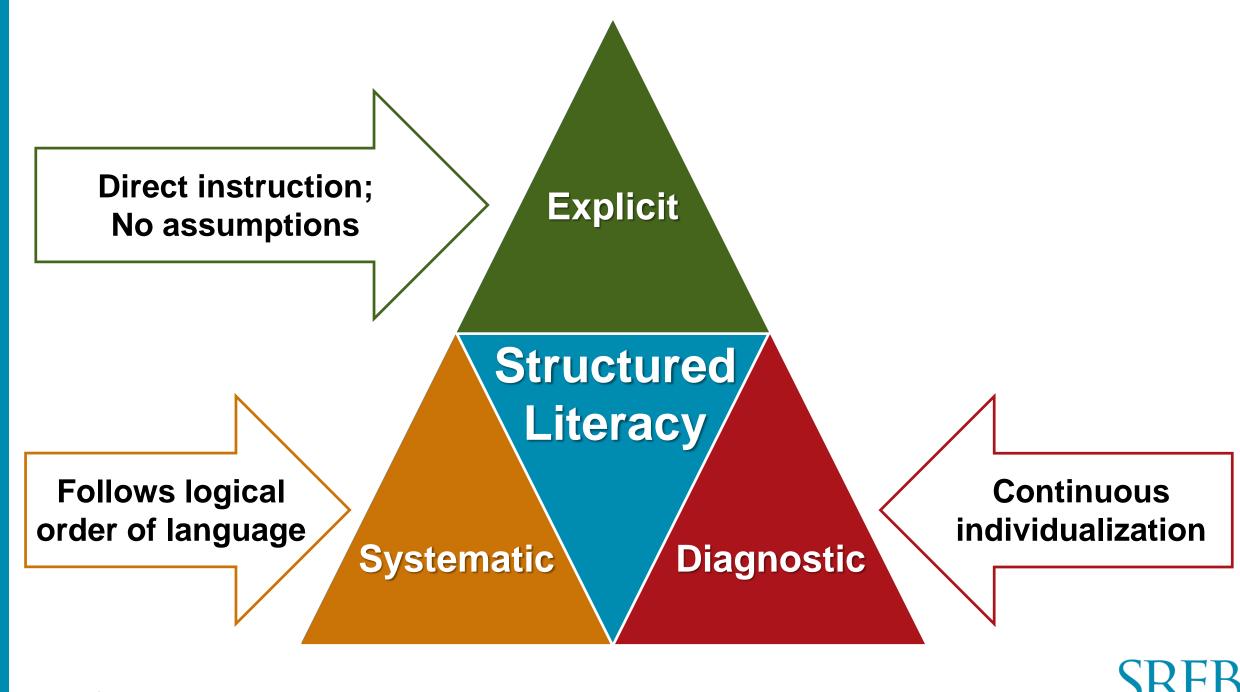
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Blend two words into a compound with an auditory prompt (blend the words rain + bow into rainbow)

#### Develop a kinesthetic awareness of sounds

(Say /p/. What is your mouth doing? What do your lips do? Can you feel air coming out? Say /b/. What is the same? What is different? Place your hand on your throat. What do you feel?)



Adapted from the International Dyslexia Association

#### STRUCTURED LITERACY PRIMER

These PRINCIPLES guide how **Structured Literacy's elements** are taught. DIAGNOSTIC 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 <u>informal</u> (e.g., observation) and <u>formal</u> (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.



#### STRUCTURED LITERACY PRIMER

#### Structured Literacy's ELEMENTS work together.

SOUND-SYMBOL

Structured Literacy's Evidence–Based Elements

Notion of the second

**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.

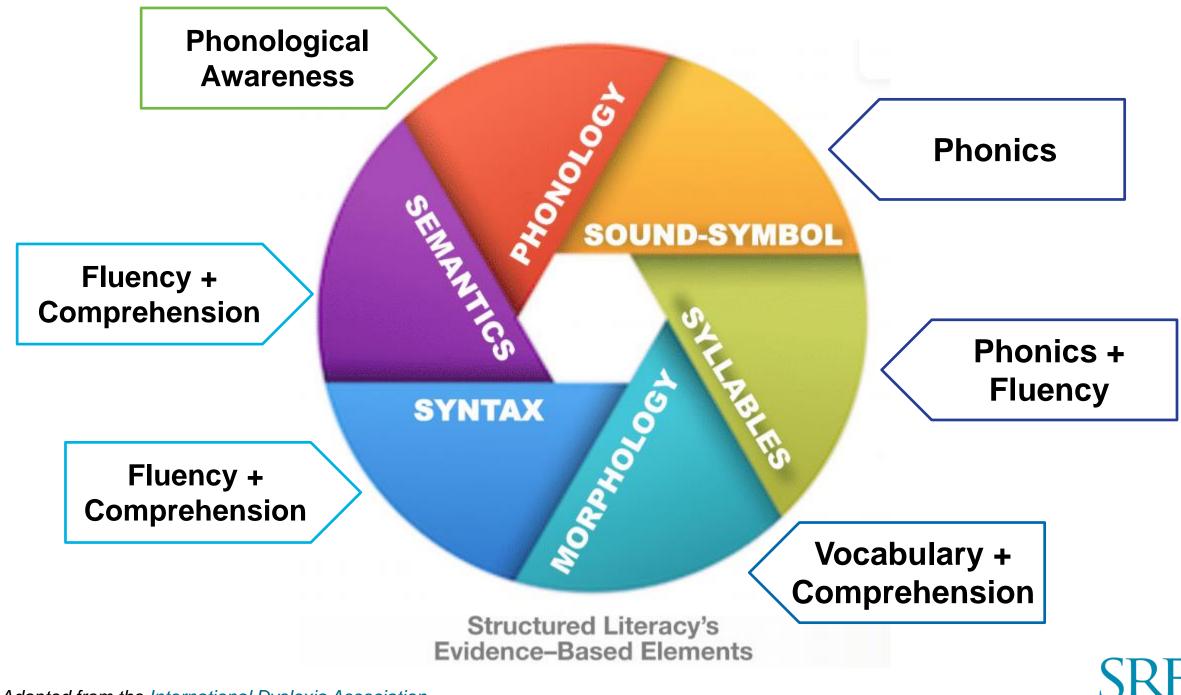
**Morphology** A morpheme is the smallest unit of meaning in language. Studying base elements and affixes helps readers decode and unlock the meanings of complex words.

**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.

SEMANTICS

SYNTAX



Adapted from the International Dyslexia Association

### The Ladder of Reading

© N. Young, 2018

5% Learning to read seems effortless

35%

Learning to read is relatively easy with broad instruction

40 to 50%

Learning to read proficiently requires code-based explicit, systematic, and sequential instruction

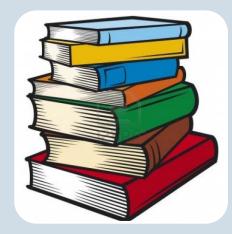
10 to 15 % (Dyslexia)

Learning to read requires code-based explicit/systematic/sequential/diagnostic instruction with many repetitions Advantaged by a structured literacy approach

Structured literacy approach essential

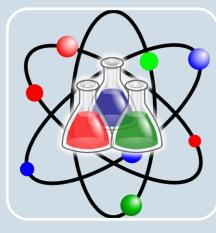
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### What Works in Secondary: Improve Core Instruction

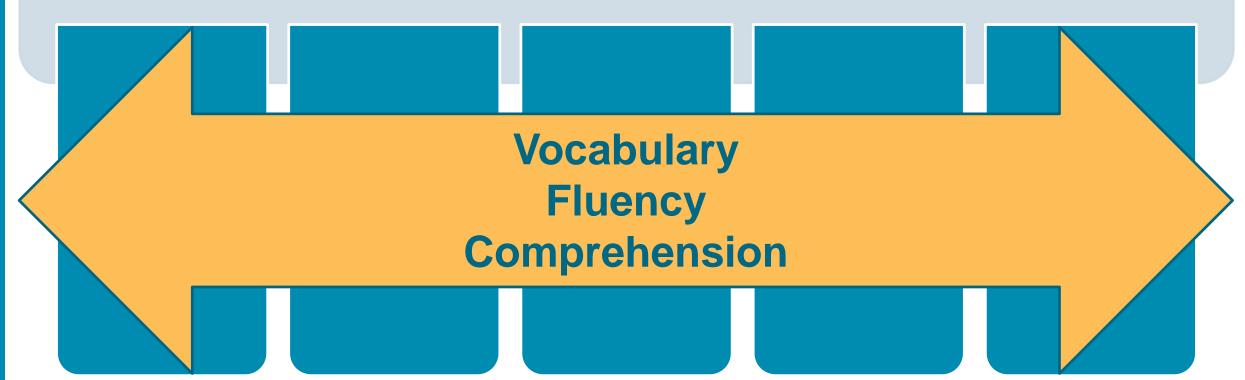












### Morphology

the study of the forms of words



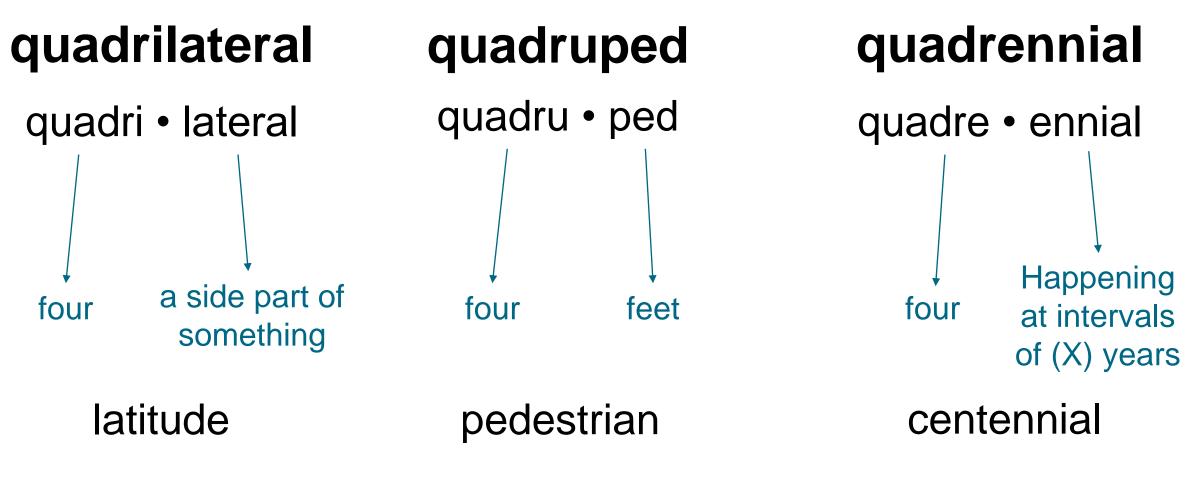
or someone.

able = Capable of



Image source

# **Morphology** the study of the forms of words



**SREB** 

### Morphologiccomical





### Morphologiccomical

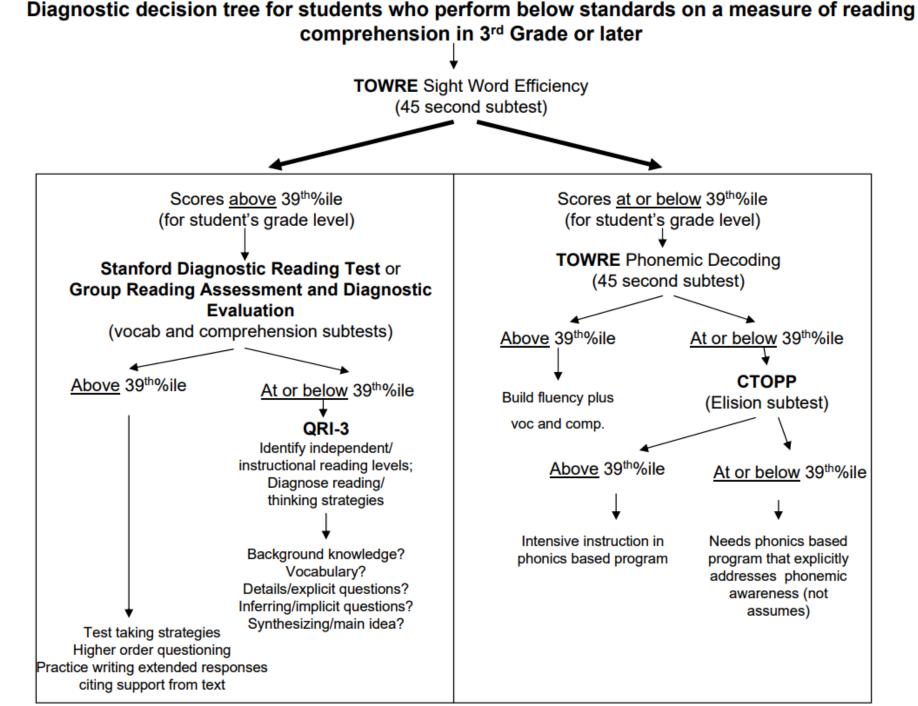






# How does your school currently identify and help students who struggle with reading?





Source: Torgesen (2005)

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### 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.

### What Works: Identify Students Who Need Support

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

Researchers estimate that

## 10% of all adolescents

and as many as

### 65% of adolescent struggling readers

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

**SREB** 

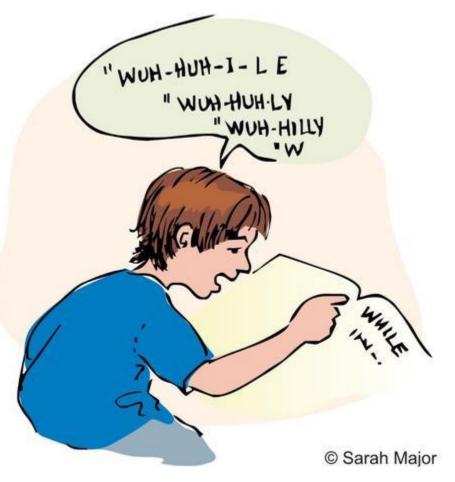
Sources: National Institute for Literacy and Hock et al. (2009)

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

Moats, 2007

### What Works: Decoding

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

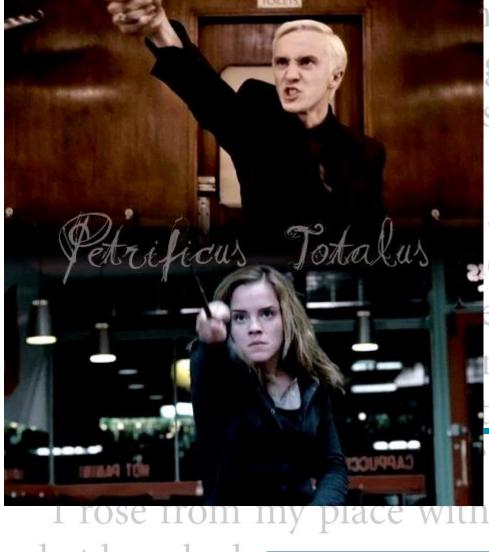




### **Phonics Support for All Content Areas**

- 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.

Image source



n paused, and laid his hand upon his grate with the convulsive action of his stly t con • vul • sive

e to me, and as if with the decision of eet. At sight of the contents, he uttered nse relief that I sat petrified. And the was alrea pet • ri • fied control,

Trose from my place with something of an effort and gave him what he asked. He thanked tinc • ture iling nod, measured out a few minims of the red tincture and added one of the powders. The mixture which was at first of a reddish bue began in proportion as the

### 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

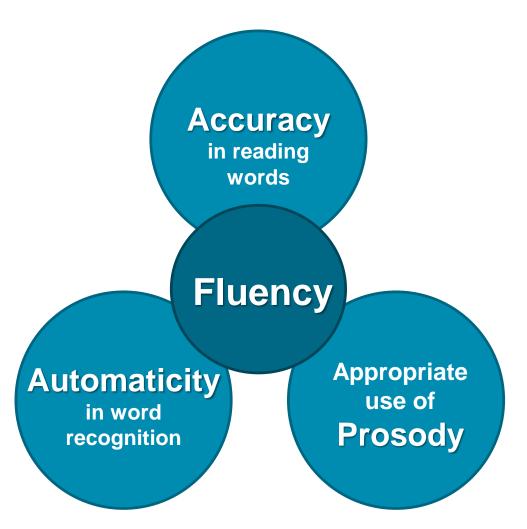
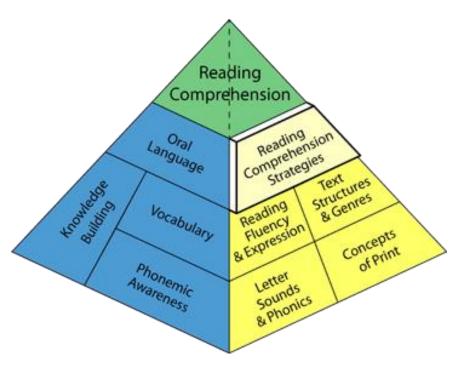


Image adapted from <u>source</u>

### 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

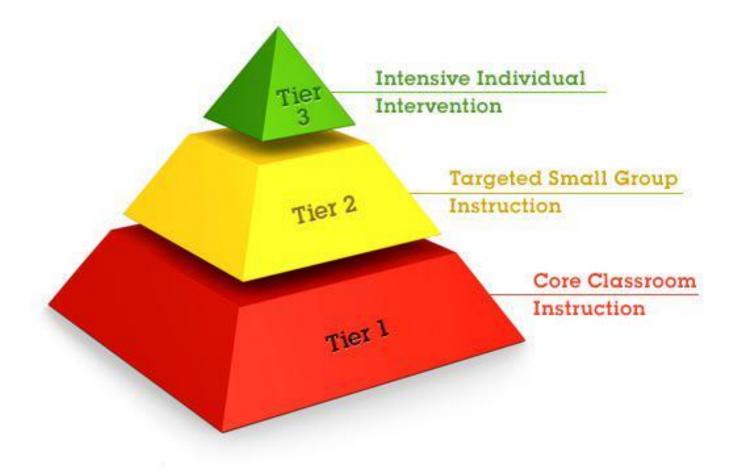


### **What Works: Comprehension**

**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



**Response to Intervention** 



Image source

- 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

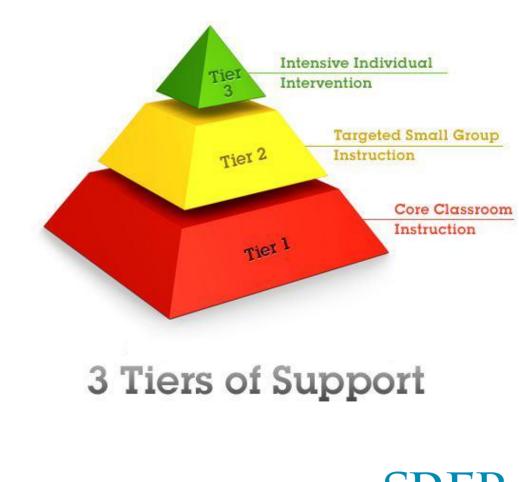


Based on information from Vaughn & Fletcher (2012). Image source

- 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



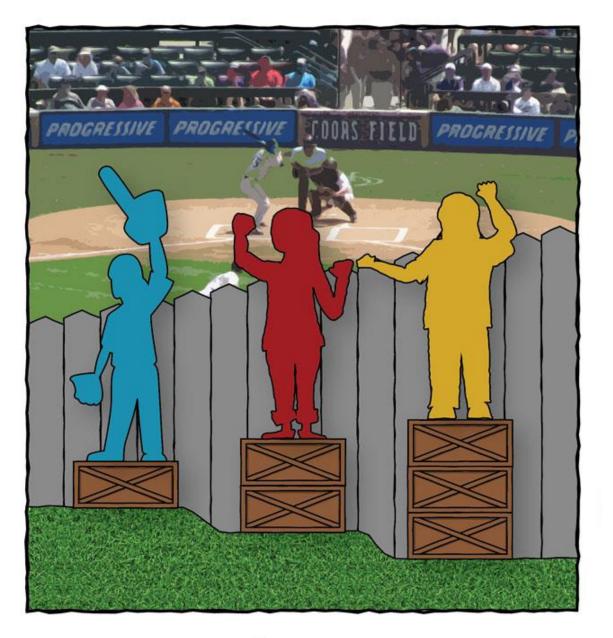
- Tier 3 for students with dyslexia:
  - daily small-group or individual instruction
  - structured, sequenced, multisensory methods (e.g. Orton Gillingham, Wilson, Barton)



... [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





## EQUALITY



Image source

# **Students With Dyslexia**

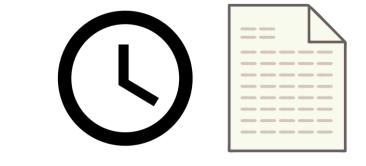
- General accommodations in the classroom
  - Explicit, verbal instructions along with written version
  - Graphic organizers and other planning tools
  - Use of audio or electronic versions of textbooks
  - Alternative methods of assessment (e.g. oral presentation instead of essay)
  - Peer notetaker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



Based on information from Vaughn & Fletcher (2012).

# **Students With Dyslexia**

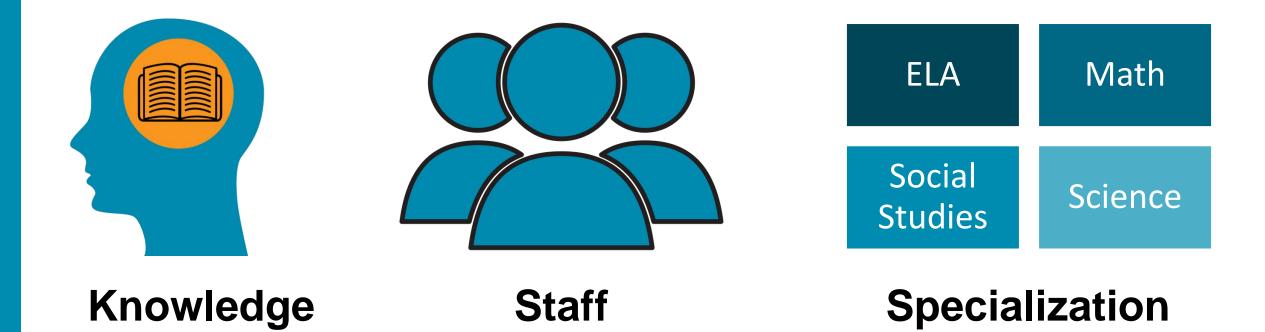
- Accommodations in the classroom that may require a 504 plan
  - Extra time to complete assignments and assessments
  - Outline of instruction and/or copies of notes and presentations
  - Grade on content, not spelling or organization
  - Use of assistive technology
    - Text-to-speech
    - Dictation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





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

## **Intervention Challenges in Secondary Schools**





## **Intervention Challenges in Secondary Schools**





## Scheduling





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



# **Solutions: Lack of Knowledge**

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

# **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.

## **Solutions: Time and Scheduling**

High school

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

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 ( <u>https://adedata.arkansas.gov/ccms/</u> ) 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 <a href="http://www.arkansased.gov/divisions/legal/rules/current">http://www.arkansased.gov/divisions/legal/rules/current</a> .
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.

- 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

- 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: <u>Iowa Reading Research Center</u>, <u>ASCD</u> and <u>U.S. Department of Education</u>

- 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

- 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



- 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

- 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

- 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

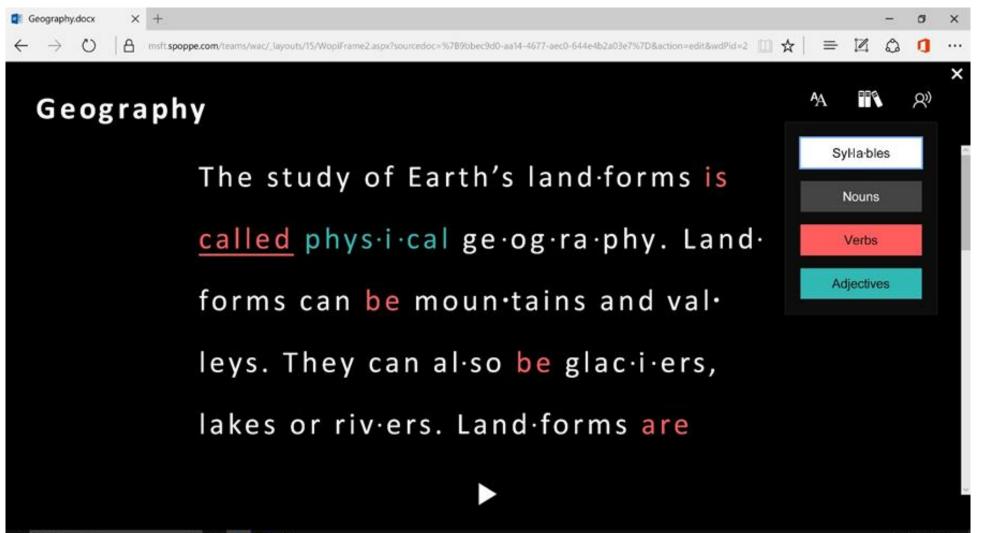


## **Accessibility Tools**

Text-To-Speech Supports for reading and understanding text	Writing and Editing Supports for writing and editing text	Accessible Materials Ebooks and audiobooks
<ul> <li>Microsoft Word 2016</li> <li>Speak command</li> <li>Learning Tools for desktop, including Read Aloud, Text Spacing, and Syllables</li> <li>Learning Tools online, including Immersive Reader and Line Focus</li> </ul>	<ul> <li>Microsoft Word 2016</li> <li><u>Grammarly</u></li> <li><u>Dictate</u> voice-to-text extension</li> <li><u>Researcher</u></li> <li><u>Lucidchart</u> add-in</li> <li><u>Paper and report templates</u></li> <li><u>Outline</u> function</li> <li><u>Edraw</u> graphic organizer templates</li> </ul>	<ul> <li>Textbooks and Literature</li> <li>Bookshare.org</li> <li>Lit2Go</li> <li>Project Gutenberg</li> <li>Learning Ally (paid service; free for students with print disabilities in TX and FL)</li> <li>Librivox</li> <li>Open Library</li> </ul>
<ul> <li>Microsoft Edge browser</li> <li>Read Aloud</li> <li>Reading View</li> <li>Read&amp;Write (free for teachers)</li> </ul>	<ul> <li>Google Docs (only in Chrome)</li> <li>Voice typing</li> <li>Grammarly</li> <li>Read&amp;Write (free for teachers</li> </ul>	<ul> <li>Novels</li> <li>Epic! (free for elementary teachers)</li> <li>Open Library</li> </ul>
Google Chrome browser         • <u>Read&amp;Write (free for teachers)</u> • <u>SpeakIt!</u> • <u>Grammarly</u> • <u>Readability Redux</u>	<ul> <li>iPad and iPhone</li> <li><u>Auto-Correction and Predictive Text</u></li> <li><u>Dictation</u></li> <li><u>Grammarly Keyboard</u></li> <li><u>Read&amp;Write (free for teachers</u>)</li> </ul>	<ul> <li>Content and News Articles</li> <li><u>ReadWorks</u></li> <li><u>Newsela</u></li> </ul>
<ul> <li>iPad and iPhone</li> <li>Speak Selection</li> <li>Speak Screen</li> </ul>	<ul> <li>Android</li> <li>Grammarly Keyboard</li> <li>Read&amp;Write (free for teachers)</li> <li>Voice typing</li> </ul>	<ul> <li>Universal Design for Learning Resources</li> <li><u>CAST Book Builder</u></li> <li><u>CAST Studio</u></li> <li><u>CAST Exchange</u></li> </ul>
Android <ul> <li><u>Select to Speak</u></li> <li><u>SpeakIt!</u></li> </ul>		

Adapted from information provided by Debbie Brineman and Joyce Derr, Georgia IDA Conference 2018

### **Microsoft Immersive Reader** (Microsoft Word Online and OneNote Online)

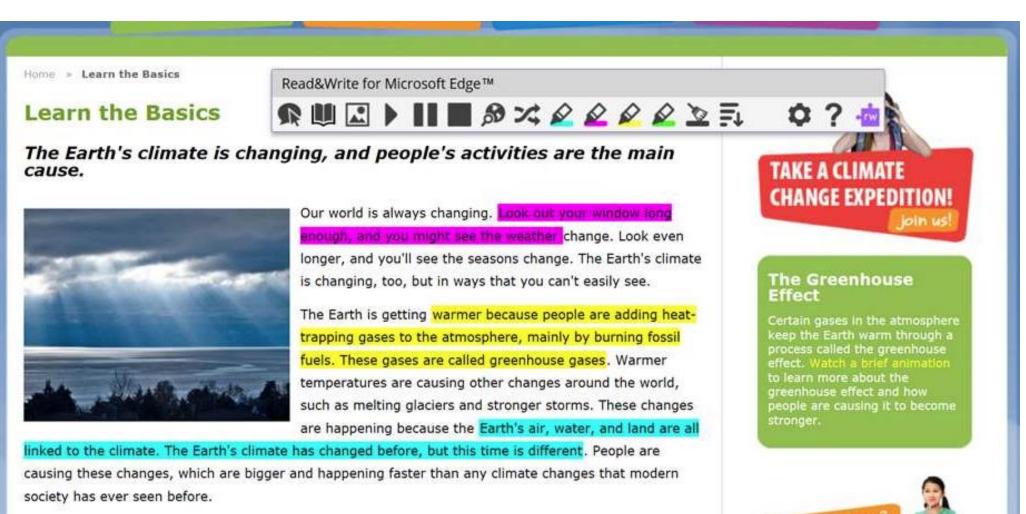


O Ask me anything

^ # \$\$ 1030 AM ₽

## **Read&Write Extension**

#### (Edge, Chrome, Word Online, iOS, Android)

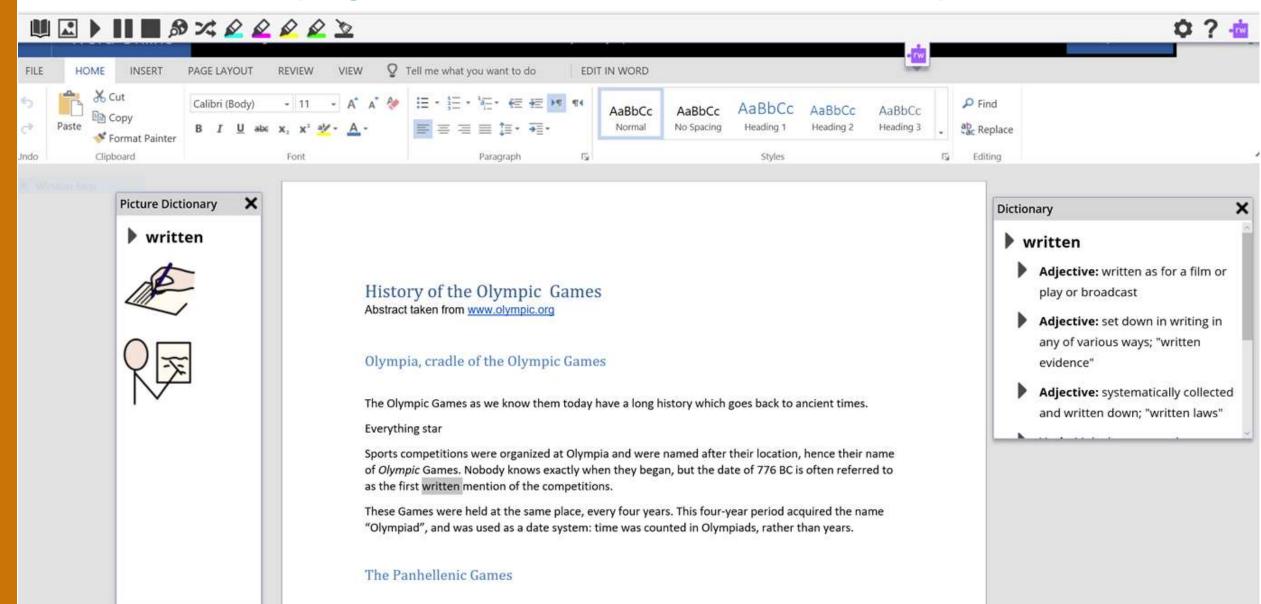


Learn more about the climate.

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

## **Read&Write Extension**

(Edge, Chrome, Word Online, iOS, Android)



### **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.

2

D

L

Missing a class

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 <u>not only check your</u> 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 <u>underlined</u> 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.

	highlighted		
	Suggested enhancement:		
	The word <b>underlined</b> appears repeatedly in this text. Consider using a synonym in its place.		
<u> </u>	Overused word: underlined	^	×
	Passive voice	×	×
	words,	~	×
	WordPress/	~	×
	Faulty parallelism	$\sim$	×

281 WORD

**12** CRITICAL ISSUES

### **Researcher** (Microsoft Word)

Insert	Draw	Design	Layout	References	Mailings	Review	View	♀ Tell me what you want to do
								Researcher
								← amazon rainforest
Th	e Ama	zon Rai	nforest					
								forest covers an area ists Estimate 16,000
			1221	ained within it ecies in total –		1.1.5. C		e species – 1,000 living trees. Amazon rainfore
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1.1.2.2.2.2					100 CONTRACTOR (000	1000 10 10 10 10 10 10 10 10 10 10 10 10		

Amazon River Animals)

#### Deforestation

Home

File

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.treyresearch.net/Y07418PV/277150PAPER0wbwp0no1022.pdf>.

\* X × inforest, covering much of northwestern Brazil and extending into Colombia. Peru and other South American ... O'O Read OHD Save Link ( ) Cite \*\*\* Research sources Filter V Website Biodiversity (12) Field Museum scientists estimate 16,000 tree species in the Amazon http://www.eurekalert.org/pub\_releases/\_\_ O'O Read the Save Link () Cite \*\*\* Article Deforestation (6) Causes of Deforestation of the Brazilian Amazon 00 Read OHD Save Link () Cite +++ Article History (18) New view on an old forest: assessing the longevity, resilience and future of the Amazon 00

84 Share

+ 100%

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

**SREB** 

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

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

SREB

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	<u>Houghton Mifflin</u> <u>Harcourt</u>		
Test of Word Knowledge (TOWK)	Vocabulary	Individual	30 – 60 minutes	<u>Pearson</u>		

SREB

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*

SREB

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

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 (PVVT-4)	Vocabulary	Individual	10 – 15 minutes	<u>Pearson</u> *
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.

# **Intervention Programs for Secondary Students**

Program	Grades	Description	Time	Research-based Practices	PA	Р	F	V	С
<b>Corrective Reading</b> <b>Decoding</b> <sup>©</sup> McGraw Hill Education	3 – 12	<ul> <li>Supplemental reading intervention</li> <li>Targets phonemic awareness, phonics, and vocabulary to increase decoding skills</li> </ul>	45 – 50 min/day	<ul> <li>Direct instruction</li> <li>Systematic and explicit</li> <li>Mastery-based learning</li> <li>Progress monitoring</li> </ul>	٢	٢	$\checkmark$	٥	$\checkmark$
<b>Corrective Reading</b> <b>Comprehension</b> <sup>©</sup> McGraw Hill Education	3 – 12	<ul> <li>Supplemental reading intervention</li> <li>Targets phonemic awareness, phonics, and vocabulary to increase decoding skills</li> </ul>	45 – 50 min/day	<ul> <li>Direct instruction</li> <li>Systematic and explicit</li> <li>Mastery-based learning</li> <li>Progress monitoring</li> </ul>				٥	٢
* <b>Just Words®</b> Wilson Language Training	4 – 12	<ul> <li>Supplemental reading program</li> <li>Based on Wilson Reading System principles</li> <li>Used as an accelerated intervention for teaching decoding and encoding</li> <li>1-1.5 years to complete the program</li> </ul>	45 – 50 min/day or 3x per week	<ul> <li>Direct instruction</li> <li>Systematic and explicit</li> <li>Based on Orton- Gillingham principles</li> <li>Multi-sensory</li> <li>Mastery learning</li> <li>Progress Monitoring</li> </ul>	٢	٢	٢	✓	✓
PA = Phonemic	Awareness	· •	ency	V = Vocabulary	C = Co	mpreh	ensior	า	

- 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 <u>Description of Specialized Reading Programs</u>, Fairfax County Public Schools

# **Intervention Programs for Secondary Students**

Program	Grades	Description	Time	Research-based Practices	PA	Р	F	V	С
<b>*Language!™</b> VoyagerSopris Learning™	4 – 12	<ul> <li>Comprehensive literacy curriculum</li> <li>Includes fiction and nonfiction</li> <li>Teacher-directed</li> <li>Supplemental online activities</li> </ul>	90 min/day or 45 min/day	<ul> <li>Differentiated</li> <li>Systematic and Explicit</li> <li>Sequential</li> <li>Multisensory</li> <li>Diagnostic</li> <li>Progress monitoring</li> </ul>	٢	٥	٥	٥	٥
<b>*Language! Live™</b> VoyagerSopris Learning™	7 – 12	<ul> <li>Comprehensive literacy curriculum</li> <li>Includes fiction and nonfiction</li> <li>Blended learning</li> <li>Students require daily access to computers</li> </ul>	90 min/day or 45 min/day	<ul> <li>Differentiated</li> <li>Systematic and Explicit</li> <li>Sequential</li> <li>Multisensory</li> <li>Diagnostic</li> <li>Progress monitoring</li> </ul>	٢	٥	٥	٥	٥
Read Naturally™	1 – 8	<ul> <li>Supplemental fluency program</li> <li>Audio and software versions</li> <li>Nonfiction stories</li> </ul>	30 min/day	<ul> <li>Teacher modeling</li> <li>Repeated readings</li> <li>Progress monitoring</li> </ul>			٥		$\checkmark$
PA = Phonemic	Awareness	P = Phonics F = Flu	ency	V = Vocabulary	C = Co	mpreh	ensior	า	

- 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 <u>Description of Specialized Reading Programs</u>, Fairfax County Public Schools

# **Intervention Programs for Secondary Students**

Program	Grades	Description	Time	Research-based Practices	ΡΑ	Ρ	F	V	С
<b>Read to Achieve<sup>©</sup></b> McGraw Hill Education	6 – 12	<ul> <li>Focuses on comprehension, decoding multisyllabic words, content vocabulary and fluency in content-area text</li> <li>Encourages collaborative learning</li> </ul>	45 – 55 min/day	<ul> <li>Direct instruction</li> <li>Systematic and explicit</li> <li>Sequential</li> <li>Mastery-based learning</li> <li>Progress monitoring</li> </ul>			٥	٥	٢
<b>Reading Success</b> <sup>®</sup> McGraw Hill Education	4 – 12	<ul> <li>Focuses on critical reading and comprehension</li> <li>Brief, targeted lessons</li> </ul>	15 – 30 min/day or 3x per week	<ul> <li>Direct instruction</li> <li>Systematic and explicit</li> <li>Sequential</li> <li>Mastery-based learning</li> <li>Progress monitoring</li> </ul>				٥	٢
<b>REWARDS®</b> Voyager Sopris Learning	4 – 12	<ul> <li>25 lessons</li> <li>Targeted instruction for decoding multisyllabic words</li> </ul>	60 min/day for 6 weeks or 30 min/day for 12 weeks	<ul> <li>Direct instruction</li> <li>Systematic and explicit</li> <li>Intensive</li> <li>Progress monitoring</li> </ul>		$\checkmark$	٥	$\checkmark$	✓
<b>REWARDS Plus®</b> Voyager Sopris Learning	7 – 12	<ul> <li>Apply REWARDS strategies to social studies and science</li> <li>Addresses test-taking skills, comprehension, and writing</li> </ul>	60 min/day or 30 min/day	<ul> <li>Direct instruction</li> <li>Systematic and explicit</li> <li>Intensive</li> <li>Progress monitoring</li> </ul>		$\checkmark$	0	$\checkmark$	✓
PA = Phonemic	Awareness	P = Phonics F = Flu	uency	V = Vocabulary C =	= Com	prehe	nsion		

• 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 <u>Description of Specialized Reading Programs</u>, Fairfax County Public Schools

## **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 <sup>®</sup> and EmpowerBoost <sup>®</sup> by Achieve 3000 <sup>®</sup>	6 – 12	<ul> <li>Online platform; requires computer or mobile device</li> <li>Differentiated instruction and adaptive progression</li> <li>English and Spanish content</li> <li>Teaches metacognitive skills</li> <li>Uses nonfiction science and social studies content and academic vocabulary to improve skills</li> <li>Progress monitoring</li> </ul>
<b>Reading Edge</b> by Success for All	6 – 8	<ul> <li>Whole-school model</li> <li>Emphasizes cooperative, team-based learning</li> <li>Teaches metacognitive skills for comprehension</li> <li>Integrates social-emotional instruction</li> </ul>
READ 180®	4 – 12	<ul> <li>Blended learning program</li> <li>Adaptive, computer-based elements</li> <li>Explicit and systematic instruction</li> <li>Focuses on background knowledge, vocabulary and reading comprehension</li> <li>Integrates project-based learning</li> </ul>

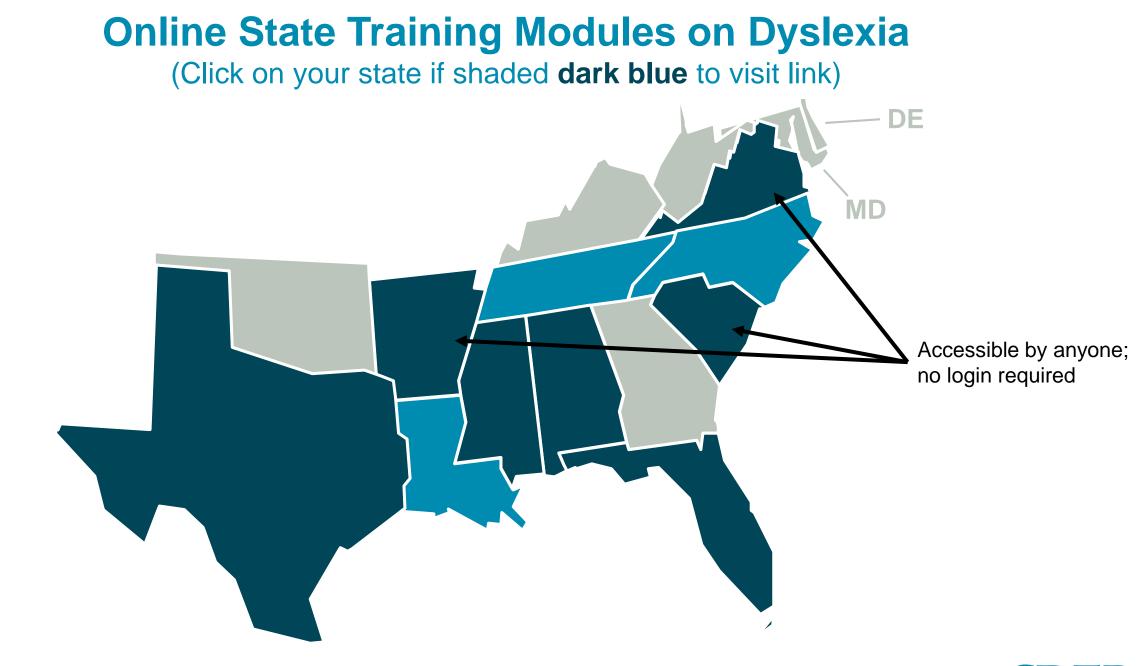
Based on information from *Evidence for ESSA* and program websites.

## **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> <li>Framework for integrating metacognitive strategy instruction into content areas</li> <li>Builds disciplinary-specific literacy skills</li> <li>Integrates social-emotional instruction</li> <li>Program version for struggling readers is taught as an elective course</li> </ul>
Intelligent Tutoring for the Structure Strategy (ITSS)	4 – 8	<ul> <li>Web-based tutoring system</li> <li>Mastery-based progression</li> <li>Focuses on using text structure to improve reading comprehension</li> </ul>
Passport Reading Journeys™	6 – 12	<ul> <li>Supplemental literacy curriculum</li> <li>Integrates whole-group, small-group and individualized instruction</li> <li>Focuses on word study, fluency, vocabulary, comprehension and writing</li> <li>Emphasis on explicit, systematic instruction</li> <li>Program version for struggling readers is taught as an elective course</li> </ul>

Based on information from *Evidence for ESSA* and program websites.



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.



Email: Samantha.Durrance@sreb.org More info: www.sreb.org/dyslexia

## **Resources on Reading Instruction and Dyslexia**

- A very accessible *interview* with a neuroscientist about dyslexia
- IDA Fact Sheet on structured literacy
- Alabama SDOE: <u>Multisensory Strategies for All Secondary Classrooms</u>
- Morphology activities produced by the Florida Center for Reading Research

# **Suggested Reading**

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