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

Samantha Durrance
Policy Analyst, SREB

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

WHAT?

Samantha Durrance
Policy Analyst, SREB
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?
It starts early.
U.S. Students Performing **At or Above Proficient** on NAEP in Reading, 2017

- **4th Grade**: 35%
- **8th Grade**: 35%
- **12th Grade**: 36%
U.S. Students Performing **At Basic** on NAEP in Reading, 2017

- **4th Grade**: 32%
- **8th Grade**: 40%
- **12th Grade**: 35%
U.S. Students Performing **Below Basic** on NAEP in Reading, 2017

- **4th Grade**: 33%
- **8th Grade**: 25%
- **12th Grade**: 29%
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”).
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.
Dyslexia cannot be detected until a child is in 3rd grade and is 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.
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.
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

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

- **Inferior frontal gyrus (Broca’s area)**
  - Formation of speech sounds, articulation

- **Occipito-temporal**
  - Mapping familiar words as images, identification of letters, rapid recognition (fluency)

Person with Dyslexia

- **Inferior frontal gyrus (Broca’s area)**
  - Formation of speech sounds, articulation

Image adapted from Shaywitz, Overcoming Dyslexia

Source: Reading Horizons
At least 1 in 10 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\(^1\)

- 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\(^1\)

- Legislation with new requirements for screening or training was proposed in the state's 2018 legislative session, but did not pass

\(^1\)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

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

Adapted from *Signs of Dyslexia*, Fairfax County Public Schools
Can you think of any students from last year who have multiple signs of dyslexia?
DYSLEXICS OF THE WORLD

UNTIE!
What do you know about teaching young children to read?
Learning to read is not a natural process.
Components of Reading

- Phonics
- Vocabulary
- Fluency
- Comprehension

Adapted from the Florida Center for Reading Research
Building Reading Proficiency

- Comprehension
- Vocabulary
- Fluency
- Phonics (letter-sound relationship)
  - Phonological Awareness
  - Oral Language
  - Phonemic Awareness
Phonological awareness involves identifying and manipulating units of oral language, including **words** and **syllables**.
Phonemic awareness is the ability to hear, identify, and manipulate individual phonemes (sounds) in spoken words.
Adapted from the International Dyslexia Association

Explicit

Structured Literacy

Systematic

Diagnostic

Direct instruction; No assumptions

Follows logical order of language

Continuous individualization

Adapted from the International Dyslexia Association
Structured Literacy Primer

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

- **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
Structured Literacy’s ELEMENTS work together.

**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.
Adapted from the International Dyslexia Association
The Ladder of Reading

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

© N. Young, 2018
What Works in Secondary: Improve Core Instruction

Vocabulary
Fluency
Comprehension
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
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
Morphologiccomical
Write the word that's the opposite of the following words:

nobody

yesbody
Oh. Well, you should’ve called a watertruck.
How does your school currently identify and help students who struggle with reading?
Diagnostic decision tree for students who perform below standards on a measure of reading comprehension in 3rd Grade or later

TOWRE Sight Word Efficiency (45 second subtest)

Scores above 39th percentile (for student’s grade level)
- Stanford Diagnostic Reading Test or Group Reading Assessment and Diagnostic Evaluation (vocab and comprehension subtests)
  - Above 39th percentile
    - QRI-3
      - Identify independent/instructional reading levels; Diagnose reading/thinking strategies
      - Test taking strategies
        - Higher order questioning
        - Practice writing extended responses citing support from text
  - At or below 39th percentile

Scores at or below 39th percentile (for student’s grade level)
- TOWRE Phonemic Decoding (45 second subtest)
  - Above 39th percentile
    - CTOPP (Elision subtest)
      - Above 39th percentile
        - Intensive instruction in phonics based program
        - Needs phonics based program that explicitly addresses phonemic awareness (not assumes)
    - At or below 39th percentile
      - Build fluency plus vocab and comp.

Source: Torgesen (2005)
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

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

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)

Based on information from Vaughn & Fletcher (2012) and RTInetwork.org
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)
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.

Based on information from LDOnline.org
I rose from my place with something of an effort and gave him what he asked.

He thanked me, with a stifling 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 hue, began, in proportion as the convulsive action of his body paused, and laid his hand upon his petrified features, he trembled both for

...
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)
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*
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
Provide Sufficient Evidence-Based Intervention

Response to Intervention
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

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

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

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

Knowledge

Staff

Specialization

ELA
Math
Social Studies
Science
Intervention Challenges in Secondary Schools

Scheduling

Funds
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 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)
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 (https://adedata.arkansas.gov/coms/) 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.
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
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
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
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](https://www2.ed.gov) and [ASCD](https://www.ascd.org)
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](https://www.airr.org) and March 7, 2013 OSEP Memo
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
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
Resources
# Accessibility Tools

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<th>Supports for reading and understanding text</th>
<th>Writing and Editing</th>
<th>Supports for writing and editing text</th>
<th>Accessible Materials</th>
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<td><strong>Microsoft Word 2016</strong></td>
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<td><strong>Textbooks and Literature</strong></td>
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<tr>
<td>• <strong>Speak command</strong></td>
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<td>• <strong>Grammarly</strong></td>
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<td>• <strong>Bookshare.org</strong></td>
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<tr>
<td>• <strong>Learning Tools for desktop</strong>, including Read Aloud, Text Spacing, and Syllables</td>
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<td>• <strong>Dictate</strong> voice-to-text extension</td>
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<td>• <strong>Lit2Go</strong></td>
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<td>• <strong>Learning Tools online</strong>, including Immersive Reader and Line Focus</td>
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<td>• <strong>Researcher</strong></td>
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<td>• <strong>Project Gutenberg</strong></td>
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<td>• <strong>Lucidchart add-in</strong></td>
<td></td>
<td>• <strong>Learning Ally</strong> (paid service; <strong>free</strong> for students with print disabilities in TX and FL)</td>
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<td>• <strong>Paper and report templates</strong></td>
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<td>• <strong>Open Library</strong></td>
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<td>• <strong>Edraw</strong> graphic organizer templates</td>
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<td><strong>Microsoft Edge browser</strong></td>
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<td>• <strong>Read Aloud</strong></td>
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<td>• <strong>Epic!</strong> (free for elementary teachers)</td>
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<td>• <strong>Open Library</strong></td>
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<td>• <strong>Read&amp;Write</strong> (free for teachers)</td>
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<td><strong>Google Docs (only in Chrome)</strong></td>
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<td>• <strong>Newsela</strong></td>
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<tr>
<td>• <strong>Read&amp;Write</strong> (free for teachers)</td>
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<tr>
<td><strong>iPad and iPhone</strong></td>
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<td><strong>Universal Design for Learning Resources</strong></td>
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<tr>
<td>• <strong>Speak Selection</strong></td>
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<td></td>
<td>• <strong>CAST Book Builder</strong></td>
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<tr>
<td>• <strong>Speak Screen</strong></td>
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<td></td>
<td>• <strong>CAST Studio</strong></td>
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<tr>
<td><strong>Android</strong></td>
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<td>• <strong>CAST Exchange</strong></td>
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<td>• <strong>Select to Speak</strong></td>
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<tr>
<td>• <strong>SpeakIt!</strong></td>
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</tr>
</tbody>
</table>

Adapted from information provided by Debbie Brineman and Joyce Derr. [Georgia IDA Conference 2018](https://www.georgiadaidc.org/)
Geography

The study of Earth’s landforms is called physical geography. Landforms can be mountains and valleys. They can also be glaciers, lakes or rivers. Landforms are
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.
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 starts

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

The Games started at Olympia but the development of the Panhellenic Games

written

Adjective: written as for a film or play or broadcast.

Adjective: set down in writing in any of various ways; “written evidence”

Adjective: systematically collected and written down; “written laws”
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.
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)

Bibliography


Researcher

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

Based on information from Winterbottom & Howard (2005), Winterbottom (2008) and RTInetwork.org
## Assessment Tools for Secondary Students

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

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## Assessment Tools for Secondary Students

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</tr>
</thead>
<tbody>
<tr>
<td>Test of Silent Word Reading Fluency (TOSWRF-2)</td>
<td>Fluency Vocabulary</td>
<td>Group</td>
<td>3 minutes</td>
<td>PRO-ED</td>
</tr>
<tr>
<td>Quick Phonics Screener</td>
<td>Phonics Decoding</td>
<td>Individual Group</td>
<td>Not specified</td>
<td>Read Naturally</td>
</tr>
<tr>
<td>The Phonics Inventory</td>
<td>Phonics</td>
<td>Individual (computer-based)</td>
<td>10 minutes</td>
<td>Houghton Mifflin Harcourt</td>
</tr>
<tr>
<td>Test of Word Knowledge (TOWK)</td>
<td>Vocabulary</td>
<td>Individual</td>
<td>30 – 60 minutes</td>
<td>Pearson</td>
</tr>
</tbody>
</table>

Based on information from [Winterbottom & Howard (2005)](https://example.com), [Winterbottom (2008)](https://example.com) and [RTInetwork.org](https://example.com)
## Assessment Tools for Secondary Students

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</thead>
<tbody>
<tr>
<td>Kaufman Test of Educational Achievement (KTEA-3)</td>
<td>Decoding Vocabulary Fluency Comprehension</td>
<td>Individual</td>
<td>15 – 85 minutes</td>
<td>Pearson*</td>
</tr>
<tr>
<td>Diagnostic Assessment of Reading (DAR)</td>
<td>Decoding Vocabulary Comprehension</td>
<td>Individual</td>
<td>10 – 30 minutes</td>
<td>PRO-ED*</td>
</tr>
<tr>
<td>Test of Word Reading Efficiency (TOWRE-2)</td>
<td>Decoding Word Recognition</td>
<td>Individual</td>
<td>5 – 10 minutes</td>
<td>PRO-ED*</td>
</tr>
<tr>
<td>Gray Oral Reading Test (GORT-5)</td>
<td>Fluency Comprehension</td>
<td>Individual</td>
<td>10 – 15 minutes</td>
<td>PRO-ED*</td>
</tr>
</tbody>
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*Based on information from Winterbottom & Howard (2005), Winterbottom (2008) and RTInetwork.org*
## Assessment Tools for Secondary Students

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</tr>
</thead>
<tbody>
<tr>
<td>Woodcock Reading Mastery Tests (WRMT-3)</td>
<td>Decoding, Comprehension</td>
<td>Individual</td>
<td>15 – 45 minutes</td>
<td>Pearson*</td>
</tr>
<tr>
<td>Comprehensive Test of Phonological Processing (CTOPP-2)</td>
<td>Phonemic Awareness</td>
<td>Individual</td>
<td>40 minutes</td>
<td>Pearson*</td>
</tr>
<tr>
<td>Peabody Picture Vocabulary Test (PVVT-4)</td>
<td>Vocabulary</td>
<td>Individual</td>
<td>10 – 15 minutes</td>
<td>Pearson*</td>
</tr>
<tr>
<td>Test of Reading Comprehension (TORC-4)</td>
<td>Comprehension</td>
<td>Individual</td>
<td>30 – 45 minutes</td>
<td>PRO-ED*</td>
</tr>
</tbody>
</table>

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## Intervention Programs for Secondary Students

<table>
<thead>
<tr>
<th>Program</th>
<th>Grades</th>
<th>Description</th>
<th>Time</th>
<th>Research-based Practices</th>
<th>PA</th>
<th>P</th>
<th>F</th>
<th>V</th>
<th>C</th>
</tr>
</thead>
</table>
| Corrective Reading Decoding®                 | 3 – 12 | • Supplemental reading intervention  
• Targets phonemic awareness, phonics, and vocabulary to increase decoding skills                                                                                                                   | 45 – 50 min/day   | • Direct instruction  
• Systematic and explicit  
• Mastery-based learning  
• Progress monitoring                                                   | ✓   | ✓ | ✓ | ✓ | ✓ |
| Corrective Reading Comprehension®            | 3 – 12 | • Supplemental reading intervention  
• Targets phonemic awareness, phonics, and vocabulary to increase decoding skills                                                                                                                   | 45 – 50 min/day   | • Direct instruction  
• Systematic and explicit  
• Mastery-based learning  
• Progress monitoring                                                   | ✓   | ✓ | ✓ | ✓ | ✓ |
| *Just Words®                                 | 4 – 12 | • 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 | • 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](http://www.fairfax.k12.va.us/specializedreading/), Fairfax County Public Schools
### Intervention Programs for Secondary Students

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<th>PA</th>
<th>P</th>
<th>F</th>
<th>V</th>
<th>C</th>
</tr>
</thead>
</table>
| *Language!™ VoyagerSopris Learning™ | 4 – 12 | • Comprehensive literacy curriculum                                          | 90 min/day or 45 min/day | • Differentiated  
• Systematic and Explicit  
• Sequential  
• Multisensory  
• Diagnostic  
• Progress monitoring                                                  | ✔️ | ✔️ | ✔️ | ✔️ | ✔️|
| *Language! Live™ VoyagerSopris Learning™ | 7 – 12 | • Comprehensive literacy curriculum                                          | 90 min/day or 45 min/day | • Differentiated  
• Systematic and Explicit  
• Sequential  
• Multisensory  
• Diagnostic  
• Progress monitoring                                                  | ✔️ | ✔️ | ✔️ | ✔️ | ✔️|
| Read Naturally™               | 1 – 8  | • Supplemental fluency program                                               | 30 min/day          | • Teacher modeling  
• Repeated readings  
• Progress monitoring                                                      | ✔️ | | | |✔️|

PA = Phonemic Awareness  
P = Phonics  
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쉽고, 아름답게.

- ☀️ Covers most or all aspects of this component of reading
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<th>P</th>
<th>F</th>
<th>V</th>
<th>C</th>
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</thead>
</table>
| Read to Achieve®      | 6–12   | • Focuses on comprehension, decoding multisyllabic words, content vocabulary and fluency in content-area text  
• Encourages collaborative learning | 45–55 min/day            | • Direct instruction  
• Systematic and explicit  
• Sequential  
• Mastery-based learning  
• Progress monitoring | 🌟🌟🌟🌟🌟 |    |    |    |    |
| Reading Success®      | 4–12   | • Focuses on critical reading and comprehension  
• Brief, targeted lessons | 15–30 min/day or 3x per week | • Direct instruction  
• Systematic and explicit  
• Sequential  
• Mastery-based learning  
• Progress monitoring | 🌟🌟🌟🌟 |    |    |    |    |
| REWARDS®              | 4–12   | • 25 lessons  
• Targeted instruction for decoding multisyllabic words | 60 min/day for 6 weeks or 30 min/day for 12 weeks | • Direct instruction  
• Systematic and explicit  
• Intensive  
• Progress monitoring | ✗🌟🌟🌟🌟🌟 |    |    |    |    |
| REWARDS Plus®         | 7–12   | • Apply REWARDS strategies to social studies and science  
• Addresses test-taking skills, comprehension, and writing | 60 min/day or 30 min/day | • Direct instruction  
• Systematic and explicit  
• Intensive  
• Progress monitoring | ✗🌟🌟🌟🌟🌟 |    |    |    |    |

PA = Phonemic Awareness  
P = Phonics  
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🌟 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](https://www.fcps.edu), 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.

<table>
<thead>
<tr>
<th>Program</th>
<th>Grades</th>
<th>Description</th>
</tr>
</thead>
</table>
| TeenBizBoost® and EmpowerBoost® by Achieve 3000® | 6 – 12 | - 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  | - Whole-school model  
- Emphasizes cooperative, team-based learning  
- Teaches metacognitive skills for comprehension  
- Integrates social-emotional instruction |
| READ 180®                | 4 – 12 | - 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](https://www2.ed.gov/programs/essabestpractices/) 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.

<table>
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<tr>
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</thead>
</table>
| Reading Apprenticeship                       | 6 – 12 | • 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  | • Web-based tutoring system  
|                                              |        | • Mastery-based progression  
|                                              |        | • Focuses on using text structure to improve reading comprehension |
| Passport Reading Journeys™                   | 6 – 12 | • 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.
Online State Training Modules on Dyslexia

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

Accessible by anyone; no login required.

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.
Questions or comments?

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: Multisensory Strategies for All Secondary Classrooms
• Morphology activities produced by the Florida Center for Reading Research
Suggested Reading


General References


General References


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