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Dyslexia Awareness for School Administrators

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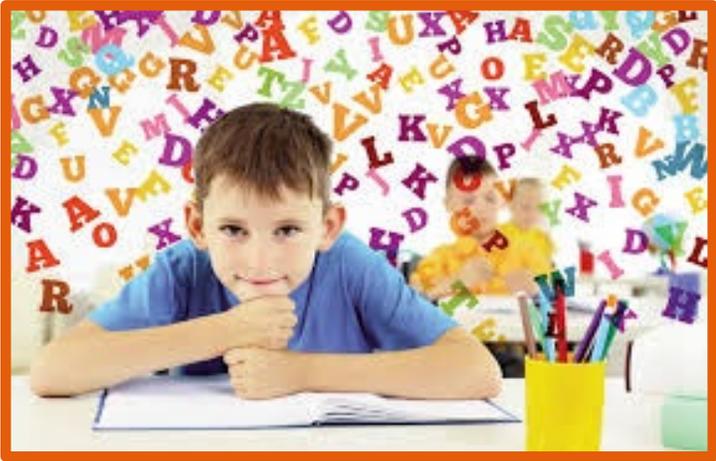


*“Dyslexia is a different brain organization that needs different teaching methods. It is never the fault of the child, but rather the responsibility of us who teach to find methods that work for that child”
(Maryanne Wolf, 2015).*

This session will inform school administrators on identification and evaluation responsibilities under the IDEA, and interventions for struggling readers including students with dyslexia.

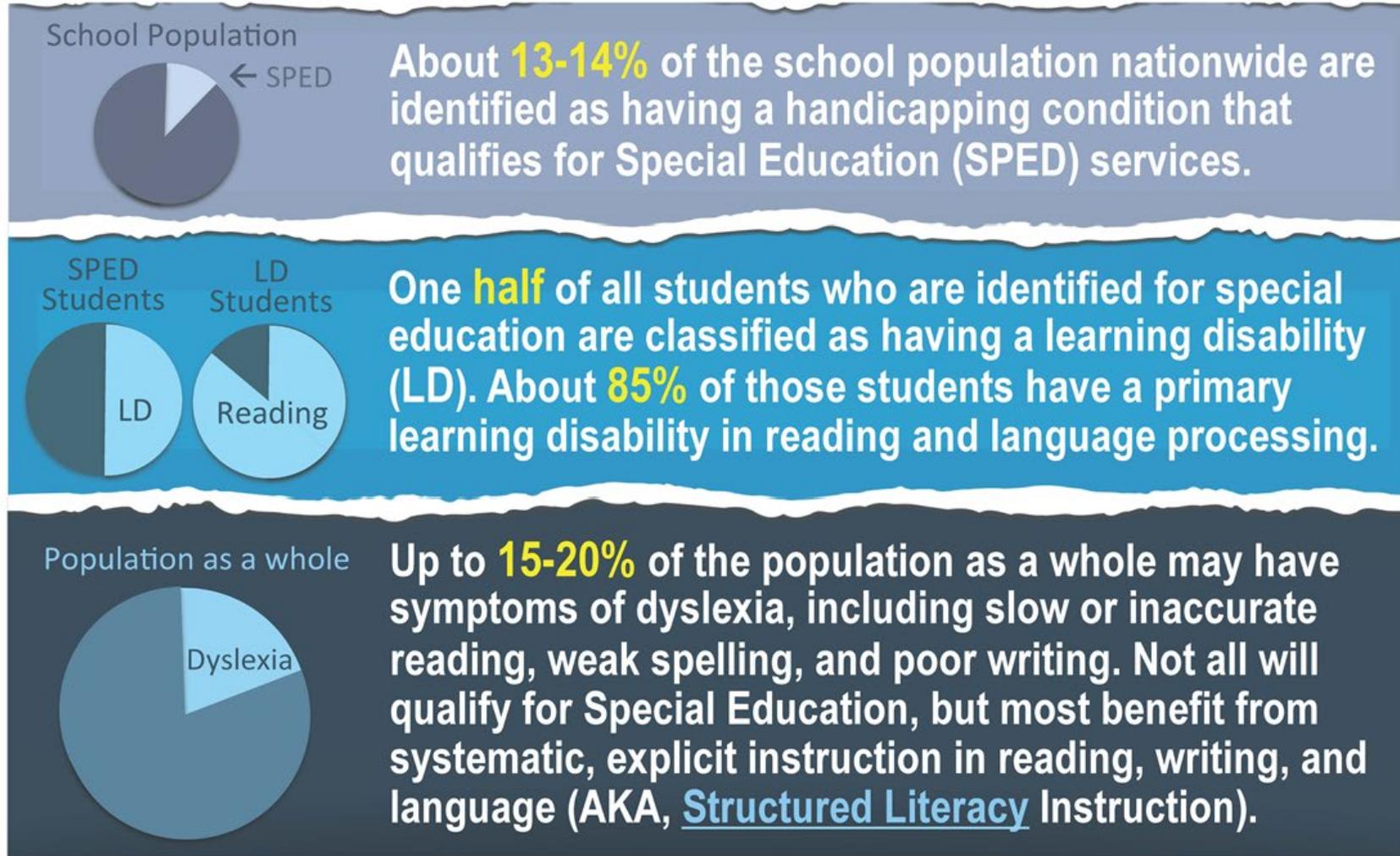


Reading is a gateway skill. In other words, the ability to read is fundamental and facilitates all academic learning.



DYSLEXIA-WHAT IT IS AND WHAT IT IS NOT

How widespread is dyslexia?



Find solutions at the International Dyslexia Association (IDA) • eida.org
Source: IDA Fact Sheet, "[Dyslexia Basics](#)" • Moats & Dakin (© 2016 Cowen For IDA)



Specific Learning Disability Defined

- According to the federal regulations at [34 CFR 300.8\(c\)\(10\)](#), a **specific learning disability** means a disorder in one or more of the basic psychological processes involved in understanding or in using language -- spoken or written -- that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations.
- This includes conditions such as dyslexia.

Dyslexia Defined

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

The problems associated with dyslexia are language-based, not visual and not related to cognitive skills or intelligence.

Dyslexia Defined

The International Dyslexia Association refers to *dyslexia* as a **language-based learning disability** “that does not arise from a physical limitation or a developmental disability.”

<https://dyslexiaida.org/>

Dyslexia is NOT a developmental disability. Children don't “grow out” of it or improve by repeating a grade or with “a little more time.”

Myths about Dyslexia

- Any child who reverses letters or numbers has dyslexia.
- Dyslexia is a visual problem-people with dyslexia see words backwards and letters reversed.
- If you don't teach a child with dyslexia to read by age 9, then it's too late for them to ever learn how to read.
- Mirror writing is a common symptom of dyslexia.
- Smart people cannot have dyslexia or have a learning disability.
- There is no way to diagnose dyslexia.
- Dyslexia cannot be diagnosed until third grade.
- Dyslexia is caused by lack of phonics instruction.

Myths about Dyslexia

- Children with dyslexia will never read well, so it's best to teach them to compensate.
- Retaining a child (i.e., holding them a grade back) will improve their academic struggles.
- Most reading and resource specialists are highly trained in dyslexia and its remediation methods.
- Dyslexia can be cured or helped by special balancing exercises, fish-oils, glasses with tinted lenses, vision exercises, modeling clay letters, inner-ear-improving medications, training primitive reflexes, eye occlusion (patching), etc.



no cow was

saw woc on

The image of a cow is still a cow when you flip it over. If you treat a word like an image in the same way, the word can easily become flipped in your mind, leading to confusion and mistakes.

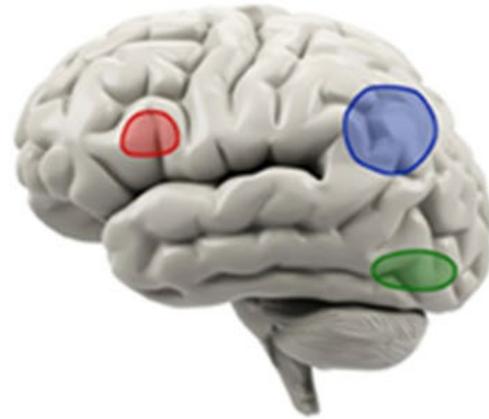
What causes dyslexia?

Research has yet to explore all possible causes, however, studies have found ***neurological differences in the brain which are believed to be at the root of dyslexia.***

Brain Comparisons

Typical Brain / Dyslexic Brain comparison

Typical



Dyslexic



● Broca's area, Inferior frontal gyrus
(articulation/word analysis)

● Parieto-temporal
(word analysis)

● Occipito-temporal
(word form)

● Broca's area, Inferior frontal gyrus
(articulation/word analysis)

Brain Comparisons

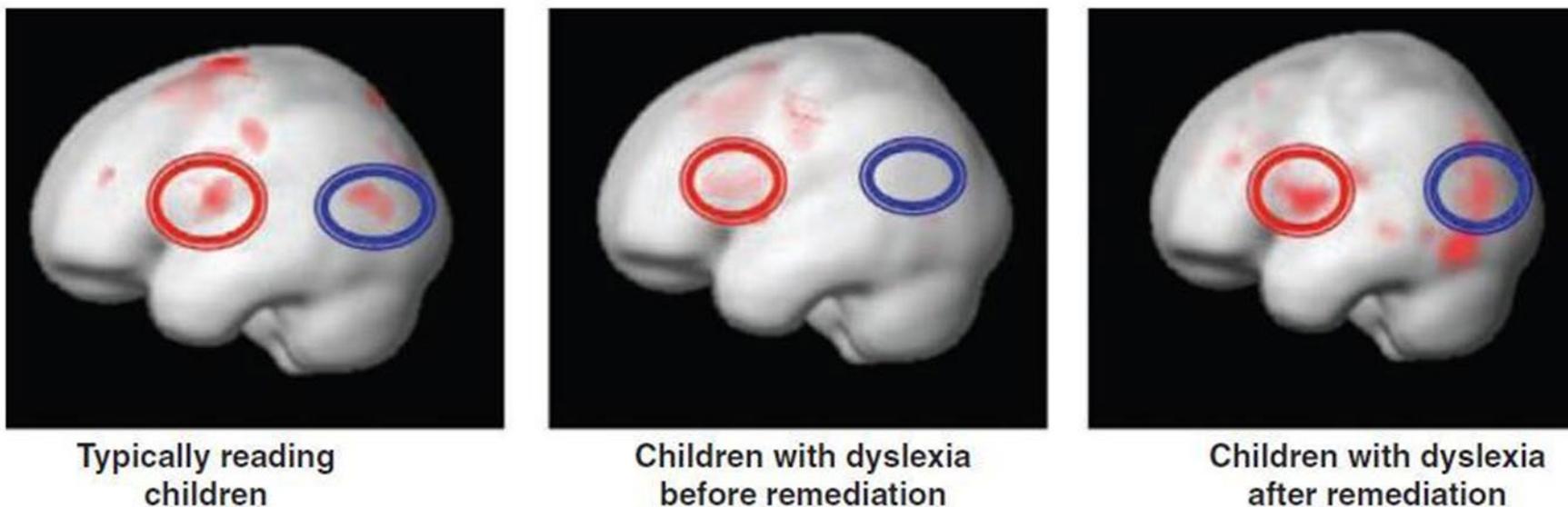


Fig. 1. Brain activation differences in dyslexia and its treatment [from (36)]. Functional magnetic resonance imaging activations shown on the left hemisphere for phonological processing in typically developing readers (**left**), age-matched dyslexic readers (**middle**), and the difference before and after remediation in the same dyslexic readers (**right**). Red circles identify the frontal region, and blue circles identify the temporo-parietal region of the brain. Both regions are hypoactivated in dyslexia and become more activated after remediation.

What are the signs of ?

Some or all of the following **13 characteristics of Dyslexia** will be present in an individual:

- Difficulty in learning to read, write, spell, and do arithmetic
- Difficulty in following oral and written instructions.
- Cramped or illegible handwriting
- Difficulty in staying on task
- Easily distracted
- Confusion in sequence of letters and symbols: e.g. B and d, quite and quiet, was and saw, 18 and 81

What are the signs of



?

Some or all of the following **13 characteristics of Dyslexia** will be present in an individual:

- Delayed spoken language
- Confusion about directions in space, time, right and left, up and down, north and south, yesterday and tomorrow
- High level of frustration
- Difficulty in retaining information
- More than average test-taking anxiety
- Increased or reduced energy level
- Immaturity

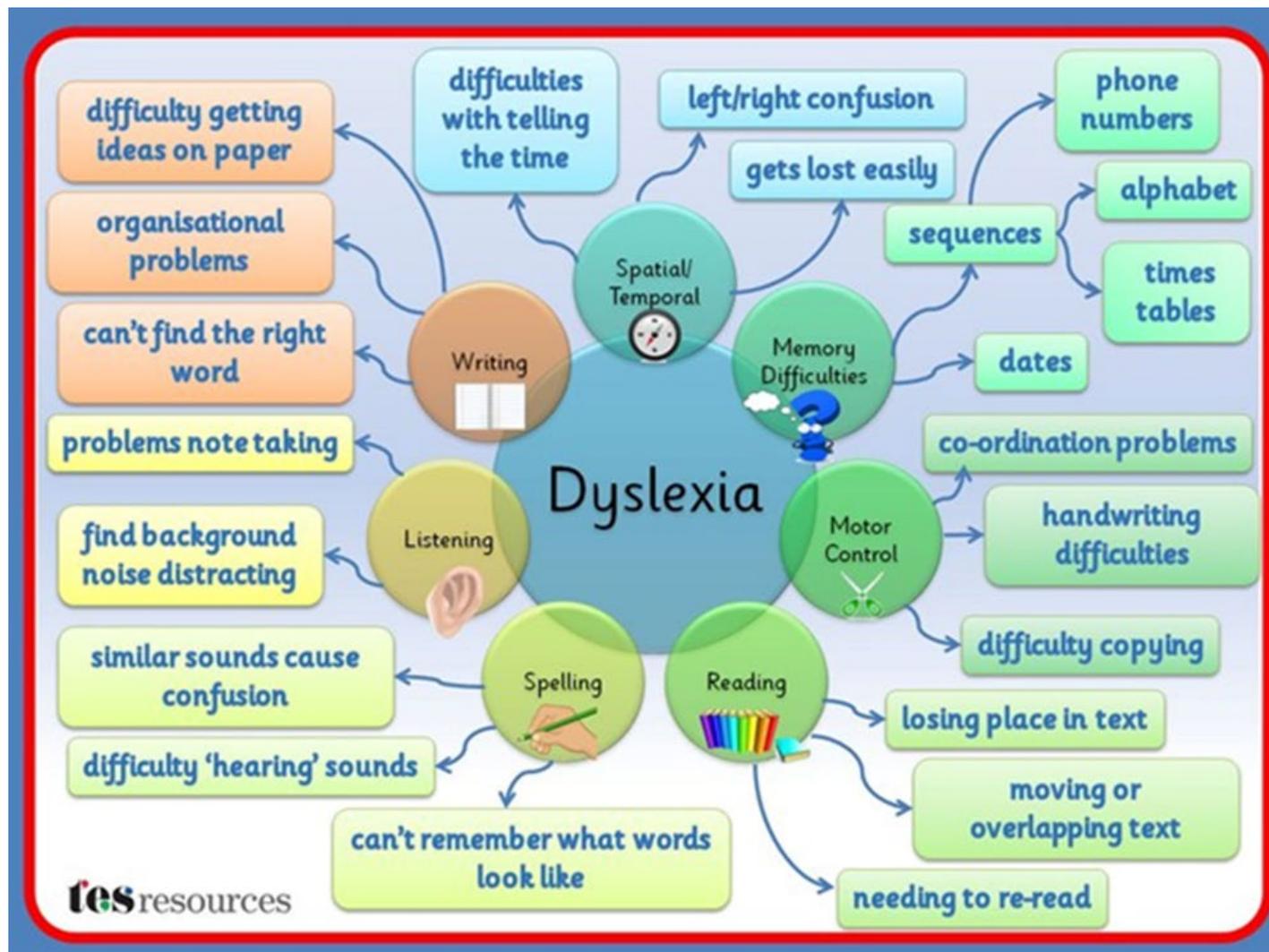
What are the effects of dyslexia?

- 50% of our students with dyslexia do not graduate from high school.
- At risk for parental abuse
- More likely to:
 - Have poor self-esteem
 - Have anxiety and depression
 - Suicidal ideation
 - Substance abuse
 - Be involved in the Juvenile Court System
 - Be involved in the Criminal Court System as adults

Other Problems Sometimes Associated with Dyslexia:

- Speech Problems
- Spatial Disorientation
- Difficulty with Sequencing Verbal Material
- Difficulty Telling Time and Judging Time Intervals
- Poor Personal Organizational Abilities
- Mixed Laterality

Dyslexia isn't just about reading





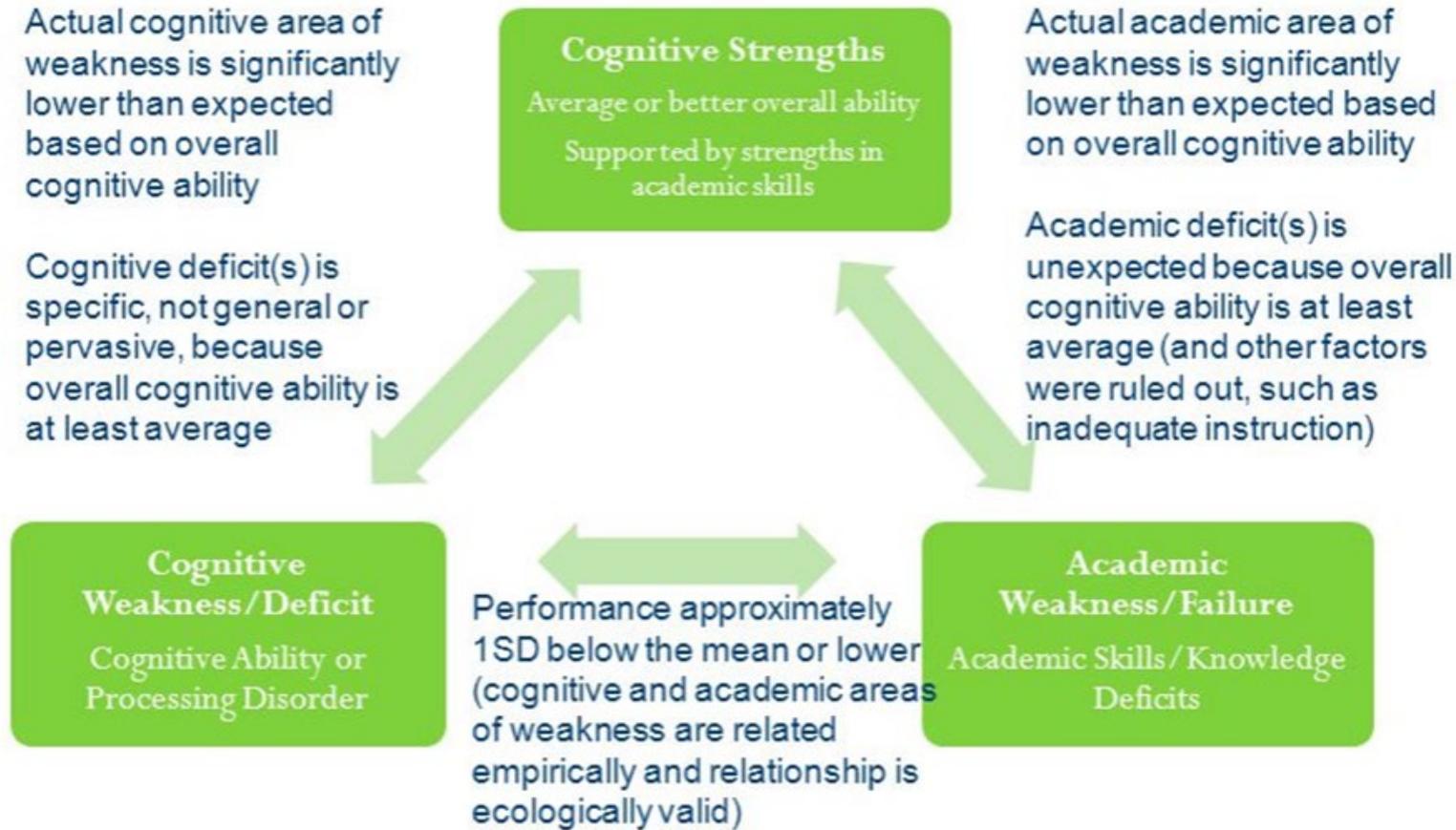
ASSESSMENT AND IDENTIFICATION OF DYSLEXIA

How is dyslexia diagnosed?

To determine eligibility under the specific learning disabilities category, current federal law allows eligibility determinations to be made in several ways or through the use of a combination of methods:

- a discrepancy between the individual's ability (usually based on an IQ score) and his achievement (usually based on scores from an individually administered, norm-referenced test of achievement);
- a pattern of strengths and weaknesses (among an individual's cognitive and achievement scores) that suggests the presence of a specific learning disability;
- or failure to respond to the RtI (Response to Intervention) model.

What is a Pattern of Strengths and Weaknesses?



Sotelo, Flanagan, and Alfonso (2011). Overview of SLD Identification. In D.P. Flanagan & V.C. Alfonso, *Essentials of Specific Learning Disability Identification*. Hoboken, NJ: Wiley; Flanagan, Fiorello, and Ortiz (2010); Hale, Flanagan, and Naglieri (2008)

“Identifying a child’s dyslexia doesn’t limit their potential. It empowers them to understand the nature of their differences and strengths and their path for success.”

Josh Clark,
The Schenck School



English Learners and Dyslexia

Can a student who is an English Learner be identified as dyslexic? Yes.

Dyslexia is a neurological learning disability and occurs at the same rate among English learners as it does among students who are not English learners.

Syntax awareness, writing/ spelling, and reading comprehension may be impacted in the students' native language.



DYSLEXIA AS A LANGUAGE-BASED READING DISABILITY

What oral language impairments are associated with dyslexia?

- Children with dyslexia most often have the following problems with the phonological component of language:
 - Phonological awareness (explicit awareness of the sounds of language)
 - Phonological memory (memory for the speech sounds in pronunciations of labels (e.g., letter names), parts of words, or entire words)
 - Phonological retrieval (word and name retrieval)
 - Phonological production (pronunciation of multisyllabic and phonologically complex words, e.g., aluminum, specific)
- Individuals with dyslexia may also exhibit problems in language that extend to vocabulary and grammatical development.

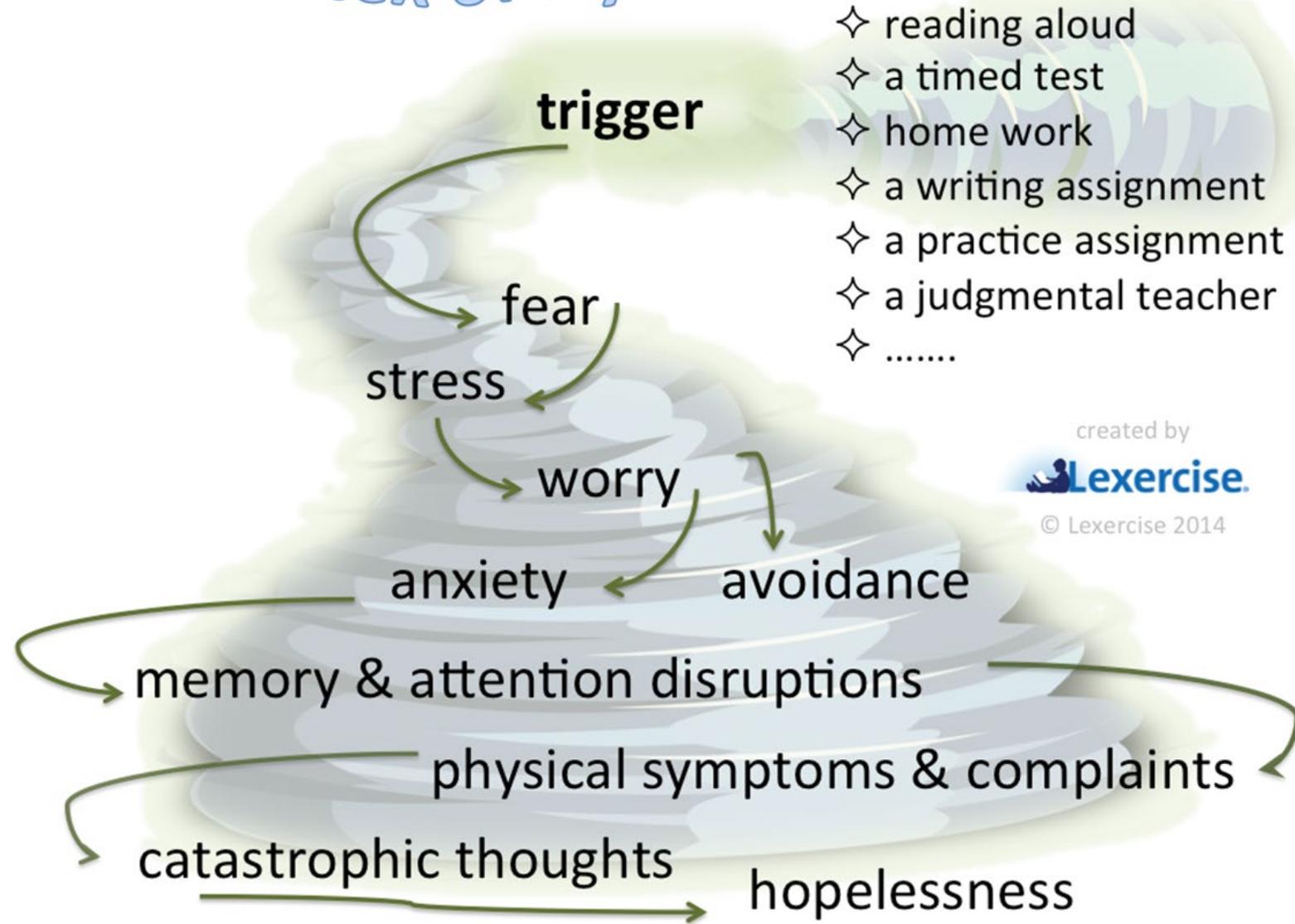


DYSLEXIA AND COMORBID DISORDERS

Attention Deficit Hyperactivity Disorder (ADHD)

- 30-50% of children with reading disabilities/dyslexia also have ADHD.
- Nearly all children who have ADHD will have difficulties learning to read.
- ADHD is a neurologically-based diagnosis applied to children and adults who consistently display certain characteristic behaviors over a period of time.
 - Distractibility: poor sustained attention to tasks
 - Impulsivity: impaired impulse control and delay of gratification
 - Hyperactivity: excessive activity and physical restlessness

The Vortex of Dyslexia





“Time is the best gift a teacher can give a dyslexic student. Allow them to think, to work through a problem before you call on them for the answer”.

Hart Stuck, Teacher
Schenck School, Atlanta USA

ACCOMMODATIONS AND ASSISTIVE TECHNOLOGY

Assistive Technology

- Assistive technology devices and services can enhance learning for some children diagnosed with dyslexia.
- Assistive technologies include devices and applications that help people with dyslexia with various tasks including:
 - reading
 - spelling
 - writing
 - organization of ideas
 - note-taking
 - time management.
- The use of technology should be the expected norm today.

Accommodations for Students With Dyslexia

Accommodations provide students with different educational opportunities. They provide students the opportunity to participate in the school environment fully and allow students to demonstrate their knowledge.

- Children who have dyslexia are entitled to accommodations that enable them to learn — and demonstrate their learning — despite their reading challenges.
- Dr. Shaywitz notes that students with dyslexia often have to fight to get extra time on things like tests, but they shouldn't. *“Dyslexia robs a person of time,” she says, “and accommodations give the time back to her.”*

Accommodations for Students With Dyslexia

Accommodations may include:

- Extra time on tests
- A quiet space to work
- The option to record lectures
- The option to give verbal, rather than written, answers (when appropriate)
- Elimination of oral reading in class
- Exemption from foreign language learning

Challenge	Accommodation	What it looks like
Reading aloud	Reduced audience size	<p>If a student with ≤ dyslexia ≥ is reluctant to read aloud for the entire class because his reading is labored, have all students read in pairs or in small groups so no one is put on the spot, Gardner said.</p> <p>"Be very intentional about the groups you create," she said. "You don't want to put a [gifted reader] with the student who has ≤ dyslexia ≥."</p>
Assigned quiet reading	Text-to-speech apps	<p>Students who struggle to complete assigned reading because of their ≤ dyslexia ≥ may benefit from using an app on their mobile device or computer that can read text aloud to them while they wear headphones, said Mikaela McCusker, another Alief ≤ dyslexia ≥ specialist. Students may benefit from an app that also allows them to highlight text, change the text size, and customize the speed of reading.</p>
Taking notes	Teacher notes	<p>Students with ≤ dyslexia ≥ who struggle to take notes from the board or projector while their teacher is talking may benefit from receiving a copy of the teacher's notes, McCusker said. To reduce the teacher's burden, suggest she print out her PowerPoint with the notes page. The teacher can also put key words in bold or highlight important points to call students' attention to them.</p> <p>McCusker suggested that the teacher can say, "The key points of my lesson are in bold so make sure you're getting that down instead of everything."</p>

Challenge	Accommodation	What it looks like
Solving math problems	Visual supports	Students with \leq dyslexia \geq may have trouble lining up columns of numbers to complete operations, Gardner said. They may benefit from graph paper to help them line up the digits so they can complete problems correctly.
Organization	Environmental changes	<p>A student with \leq dyslexia \geq may also have ADHD behaviors. Have a student who is struggling to focus sit closer to the front of the classroom and teacher, McCusker said.</p> <p>Also give a student headphones to block out distractions, Gardner said.</p> <p>A student may also benefit from receiving a planner or learning how to use the calendar on his cellphone and using a color-coded system of folders for different subjects, McCusker said. "You can make everything in math red," she said. "You can even cover the textbook in the color."</p>
Following directions	Chunking	Students with \leq dyslexia \geq may have trouble following multi-step directions, so it's helpful to break their assignments into smaller chunks, Gardner said. On paper, you may want to give them a bulleted list of directions rather than the usual paragraph. You may verbally want to give one part of an assignment, let them complete that, then give them the next part until they are done.



INTERVENTION AND INSTRUCTION

Explicit Instruction

Explicit instruction is “an approach that involves direct instruction: the teacher demonstrates the task and provides guided practice with immediate corrective feedback before the student attempts the task independently” (Mather & Wendling, 2012).

Explicit Instruction

8 key practices for teaching students with learning disabilities		
Practice	Why to use it	How to implement it
1. Explicit, targeted instruction	Students can master expectations when the learning is systematic, overt, and clear.	Use step-by-step modeling through examples of expected student actions. Give students immediate and corrective feedback so they understand how to improve.
2. Universal design for learning	Teachers can design differentiated learning situations to meet the needs of individual students. Students then have equal opportunities to understand, demonstrate knowledge, and engage in lessons in multiple ways.	Offer students information in more than one format, including text, audio, video, and hands-on.
3. Strategy instruction	This provides students cognitive strategies for independent learning. Strategies such as making predictions and self-regulation help students organize, comprehend, and recall information.	Teach students content anchoring so they connect a new concept with a familiar concept. Model self-advocacy and self-determination behaviors so students learn to be more active and independent learners.
4. Positive behavior supports	This helps students learn to communicate and manage their behaviors. It also helps establish clear and consistent expectations for behavior.	Implement positive behavior supports and monitor the effectiveness through data-driven decision-making.

Explicit Instruction

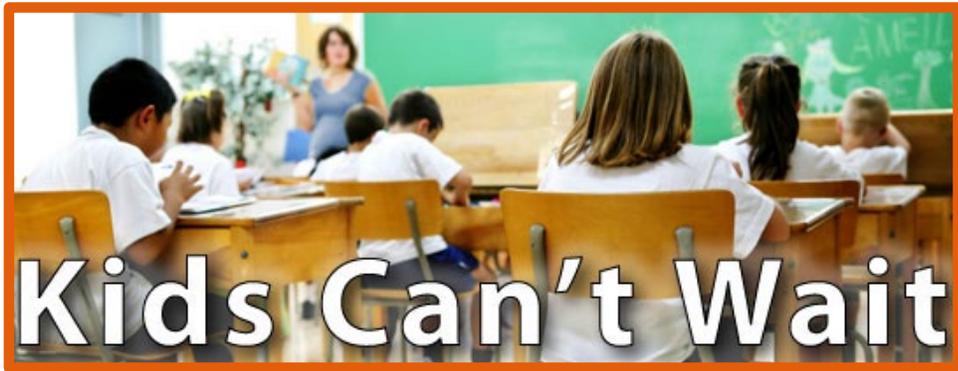
8 key practices for teaching students with learning disabilities		
5. Flexible grouping	Intentionally putting students in small groups for instruction can help teachers stay committed to high expectations while recognizing different student needs and strengths.	Create flexible and temporary groupings based on student strengths and weaknesses. Students who are English learners may benefit from flexible grouping when joined with students who have different reading skills so that students in the group can practice reciprocal teaching, for example.
6. Collaboration	This strengthens teachers' knowledge about students' strengths and weaknesses and allows teachers to share ownership and expectations for student progress.	Integrate lesson planning with all instructional staff to set the scope, sequence, and pacing of instruction and provide diverse learners with effective instruction, aligned with standards, across all providers and tiers of instruction.
7. Culturally and linguistically responsive pedagogy	By understanding and incorporating students' cultural references, a school can become respectful and inclusive of diversity. It can also ensure identification of students who may be eligible for IDEA services.	Make sure students have opportunities to see their cultures reflected in the curriculum. Eliminate approaches and beliefs that some students cannot be given demanding work. Expand these strategies for social-emotional learning opportunities.
8. Evidence-based content instruction	The combination of explicit instruction with recent proven best practices for instruction can have a positive academic impact on struggling learners.	Use research-based approaches for multisensory, explicit, structured, and sequential content instruction for literacy and math. For example, using structured literacy explicitly to teach systematic word identification and decoding strategies benefits most students, especially those with dyslexia.

Principles of Effective Instruction for Students with Dyslexia

- Reading and spelling skills are taught explicitly.
- Demonstration, guided practice, feedback and independent practice are provided.
- Instruction is sequential with careful, individualized planning and pacing.
- Instruction is built around small steps that connect old learning to new learning.

Principles of Effective Instruction for Students with Dyslexia

- Systematic review is provided to ensure mastery of previously learned material.
- Multisensory instruction is provided.
- Progress is monitored and evaluated frequently. Instruction is adapted based on progress.



Kids Can't Wait

MOVING FORWARD

Other Ways to Support a Student With Dyslexia

- For any student who is struggling, it is particularly important to encourage the things he enjoys and excels at, so that he feels confident in some areas. This could be sports, theater, art, science, debate team or anything else that makes him feel good at something.
- Sharing stories of successful individuals with dyslexia might also help reinforce that it has nothing to do with intelligence.
- Supportive tools and technology can help your child navigate difficult problems:
 - Audio books can be a great alternative to reading
 - Typing on a computer or tablet instead of writing
 - Apps that can help make learning fun by turning phonological awareness into a game
 - Old-fashioned rulers can help kids with dyslexia read in a straight line, which might help keep them focused

Let's change what we say!

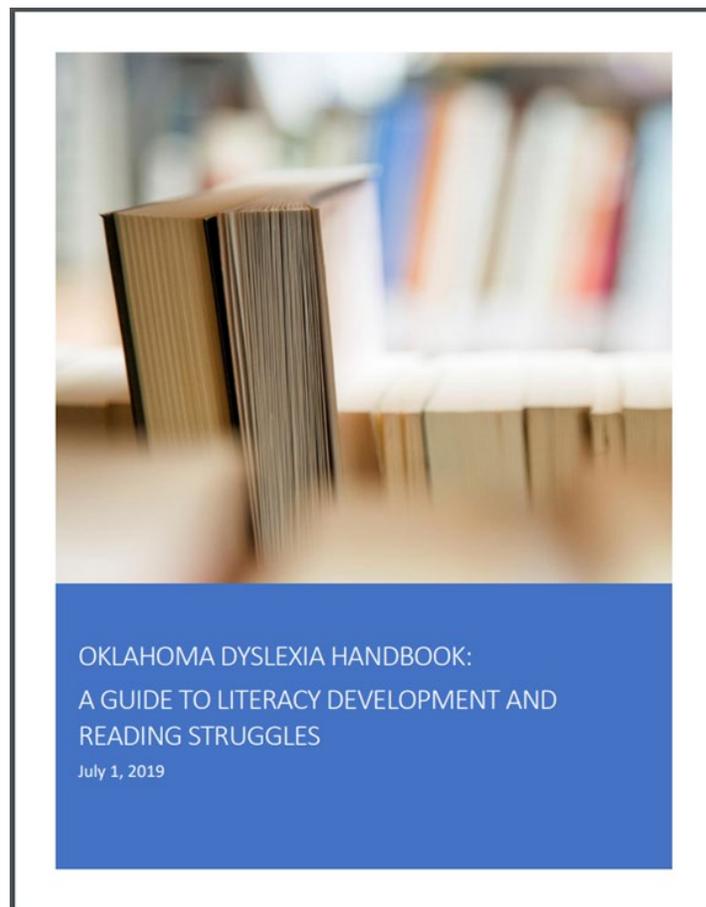


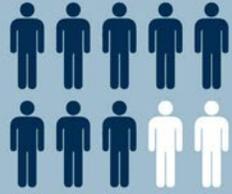
- “Not all kids go to college”-kindergarten teacher
- “You obviously are not doing your reading homework, because you are not getting better” -Teacher
- “Not a shining star” -Teacher
- “Doesn't want to learn” – Elementary Principal
- “Lazy and inattentive” -Teacher
- “Unable to be taught” – Special Education Teacher



- “You can be successful at a lot of things.”
- “Let's do it together.”
- “Tell me what you understand.”
- “You are working really hard.”
- “How can I help?”
- “Let's highlight the important information.”
- “How can we use assistive technology to help?”

Oklahoma Dyslexia Handbook





80% of the population believes that dyslexia is associated with low intelligence

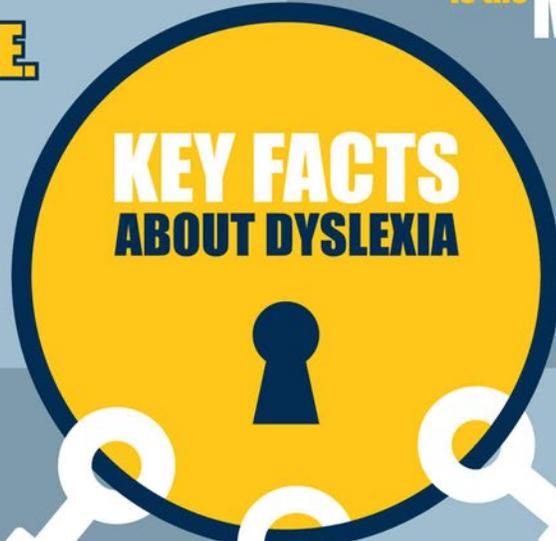
THIS IS NOT TRUE.

DYSLEXIA occurs in people of **ALL** INTELLECTUAL LEVELS

DYSLEXIA is the **MOST COMMON** LEARNING DISABILITY



and affects **15-20%** of the US population



KEY FACTS ABOUT DYSLEXIA

dyslexia **RUNS IN FAMILIES**

parents with dyslexia **ARE MORE LIKELY TO HAVE CHILDREN with dyslexia**

research has proven that students with dyslexia

CAN LEARN TO READ when instruction is:

Explicit and systematic

Phonics based

Multisensory

Individualized

Consistent and frequent

Emotionally reinforcing



What can you do tomorrow?

Teacher training

- For students with dyslexia, *“teaching reading IS rocket science”* (Moats, 1999).
- Teachers need specific knowledge about the science of reading as well as language structure including phonology, orthography, and morphology in order to teach reading effectively.
- Research has demonstrated that most reading difficulties can be resolved or diminished when reading is taught by a highly knowledgeable and skilled teacher.

What can you do tomorrow?

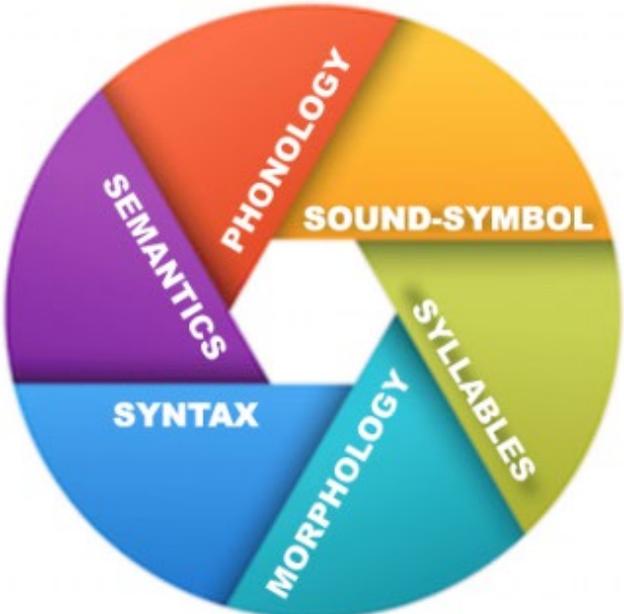
Evidenced-based programs

- Structured literacy is an explicit, direct, systematic, cumulative, and diagnostic approach to teaching reading that includes principles of phonology, sound-symbol association, syllable instruction, morphology, syntax, and semantics.

What can you do tomorrow?

STRUCTURED LITERACY PRIMER

Structured Literacy's ELEMENTS work together.



Structured Literacy's Evidence-Based Elements

- Phonology** (study of sound structure of spoken words) is a key element of Structured Literacy Instruction. **Phonemic awareness** (ability to distinguish / segment / blend / manipulate sounds relevant to reading/spelling) is central to phonology.
- Sound-Symbol Association** Once students develop phoneme awareness, they must learn the **alphabetic principle**—how to map phonemes to letters (**graphemes**) and vice versa.
- Syllables** Knowing the six syllable / vowel grapheme types helps readers associate vowel spellings with vowel sounds. Syllable division rules help readers divide / decode unfamiliar words.
- Morphology** A **morpheme** is the smallest unit of meaning in language. Studying base elements and affixes helps readers decode and unlock the meanings of complex words.
- Syntax**—the set of principles that dictate the sequence and function of words in a sentence—includes grammar, sentence structure, and the mechanics of language.
- Semantics** Semantics is concerned with meaning. The Structured Literacy curriculum (from the start) includes instruction in the comprehension and appreciation of written language.

What can you do tomorrow?

STRUCTURED LITERACY PRIMER
Effective reading instruction for most children incorporates *all* this.

Inner Circle: Elements
Outer Circle: Teaching Principles

To ensure that *all* children have access to effective reading instruction, we must ensure that their teachers have **BOTH** the ...

- ✓ deep content knowledge and
- ✓ specific teaching expertise needed ...

to teach these **elements** according to these **principles.**

We can meet the needs of nearly all our students!



While all students benefit from **systematic, explicit instruction** in reading, writing, and language from highly **knowledgeable and skilled teachers**, this is absolutely **VITAL** for students with dyslexia and for most students reading below the basic level.



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