Dyslexia 101:

Understanding the basics



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One in five people have dyslexia

What is Dyslexia?

Dys meaning “not” or “difficult”

Lexia meaning “words, reading, or language”

“Dyslexia is a specific learning disability characterized by difficulties in word reading and/or spelling that involve accuracy, speed, or both and vary depending on the orthography. These difficulties occur along a continuum of severity and persist even with instruction that is effective for the individual’s peers.

The causes of dyslexia are complex and involve combinations of genetic, neurobiological, and environmental influences that interact throughout development. Underlying difficulties with phonological and morphological processing are common but not universal, and early oral language weaknesses often foreshadow literacy challenges.

Secondary consequences include reading comprehension problems and reduced reading and writing experience that can impede growth in language, knowledge, written expression, and overall academic achievement. Psychological well-being and employment opportunities also may be affected. Although identification and targeted instruction are important at any age, language and literacy support before and during the early years of education is particularly effective.”

Adopted by the IDA Board of Directors on ***October 22, 2025***.

In summary, dyslexia is…

- A specific learning disability characterized by persistent difficulty with accurate and/or fluent word reading and/or spelling

- Core difficulties are unexpected relative to other abilities and instruction *"He's so smart. It makes no sense why he can't learn to read."*

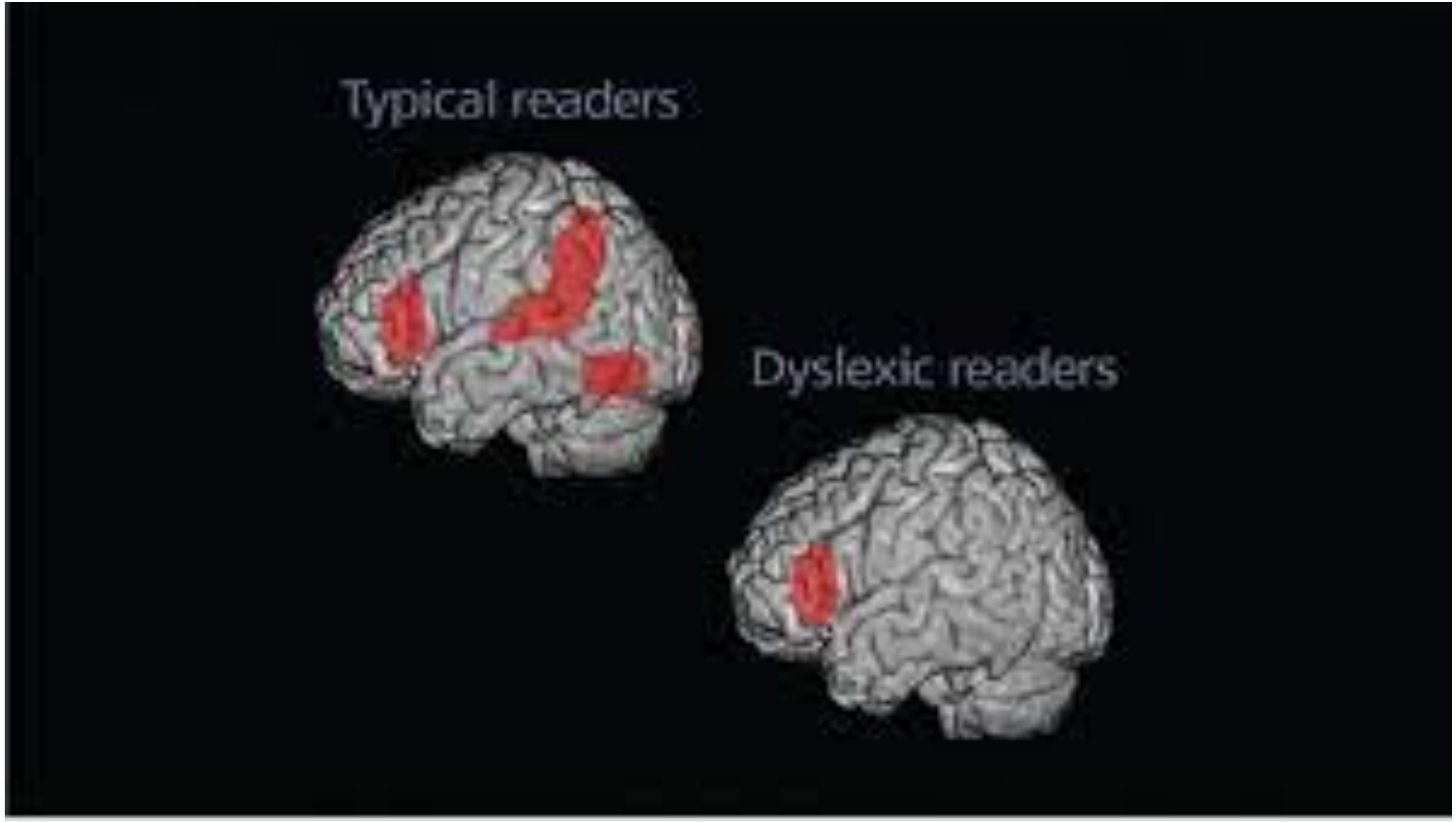
- Difficulties are often related to phonological processing and learning the relationships between speech sounds and print

  the part of the brain where the sounds of language are put together to form words and where words are broken down into the elementary sounds

- Dyslexia is neurobiological and developmental—not a motivation, vision, or intelligence problem



A difference in the brain…



NEURODIVERSITY - Dyslexia, Reading, and the Brain

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. (Lyon, Shaywitz, & Shaywitz, 2003, p. 2)

2021 Science keeps evolving, stay tuned

Broca's Area

Neuro Normal
- This is the area that processes articulation and usually helps us connect sounds to letters.

Dyslexic
- Larger in dyslexics. It is being over utilized to compensate from the lack of other support.

Parieto-Temporal Area

Neuro Normal
- Usually, the novice reader uses this area, in combination with Broca's Area, to slowly analyze new words.

Dyslexic
- Not used at all

Occipital-Temporal Area

Neuro Normal
- This is the word from area of the brain. For most people, when a word is read several times, the brain makes a neural model of it that includes spelling, pronunciation and the meaning of the word.

Dyslexic
- Not used at all



Cerebellum (Time Blindness Area)

Neuro Normal
- Normal size and condition
- Assists with time measurement

Dyslexic
- Different condition (cerebellar dysfunction)
- Might not assist with time

Broca's Area

Neuro Normal
- Not used

Dyslexic
- Larger and used by dyslexics. It is being used to compensate for the different pathways.

Parieto-Temporal Area

Neuro Normal
- Not used for reading

Dyslexic
- With additional training will be used for reading

Occipital-Temporal Area

Neuro Normal
- Not used for reading

Dyslexic
- With additional training will be used for reading

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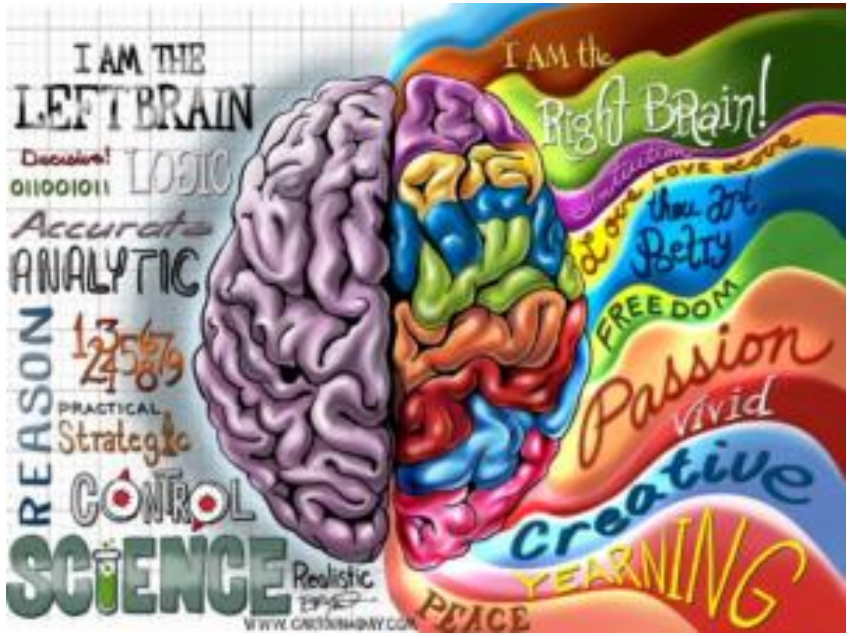
LEFT BRAIN FUNCTIONS:

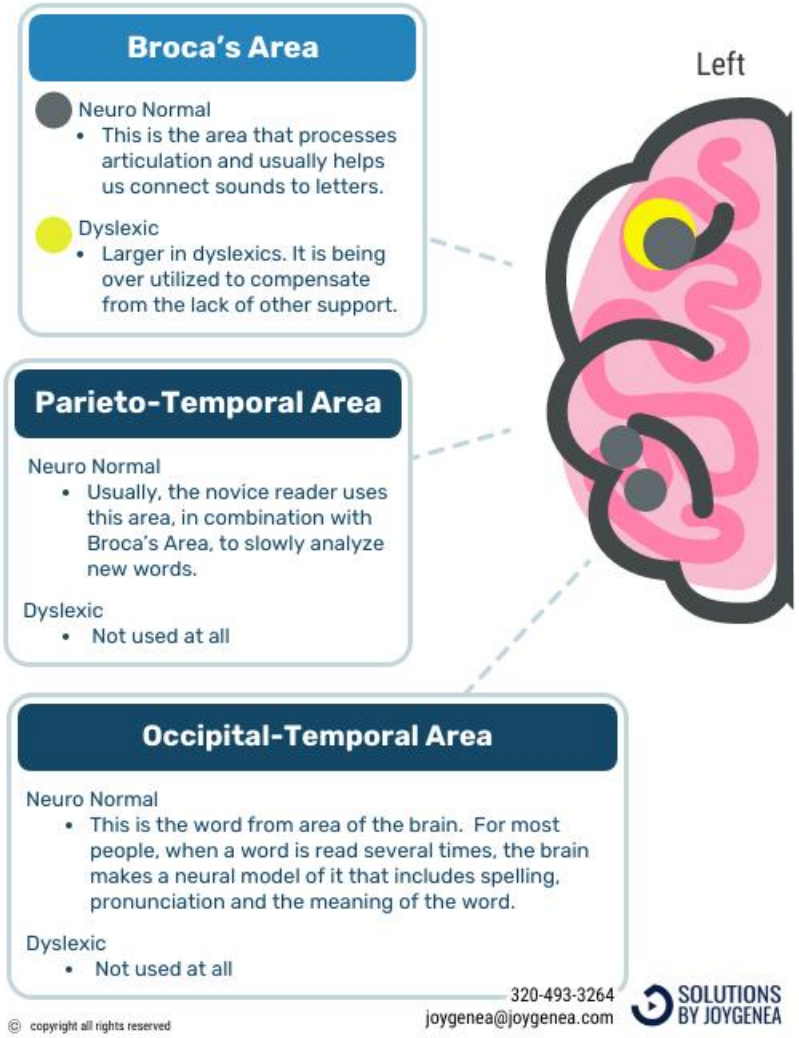
- Analytic thought
- Logic
- Language
- Reasoning
- Science
- Math
- Writing
- Number skills
- Right-hand control



RIGHT BRAIN FUNCTIONS:

- Art awareness
- Creativity
- Imagination
- Intuition
- Insight
- Holistic thought
- Music awareness
- 3-D forms
- Left-hand control





Broca's Area – left side of brain

Neuro Normal Brain

This is the area that processes articulation and usually helps us connect sounds to letters.

Dyslexic Brain

Larger in dyslexics. It is being over utilized to compensate for the lack of other support.

Then information travels back to the

Parieto-Temporal Area – left side of brain

Neuro Normal Brain

Usually, the novice reader uses this area, in combination with Broca's Area, to slowly analyze new words.

Dyslexic Brain

Not used at all

Then the brain processes the information working with the

Occipital-Temporal Area – left side of brain

Neuro Normal Brain

This is the word from an area of the brain. For most people, when a word is read several times, the brain makes a neural model of it that includes spelling, pronunciation, and the meaning of the word.

Dyslexic Brain

Not used at all

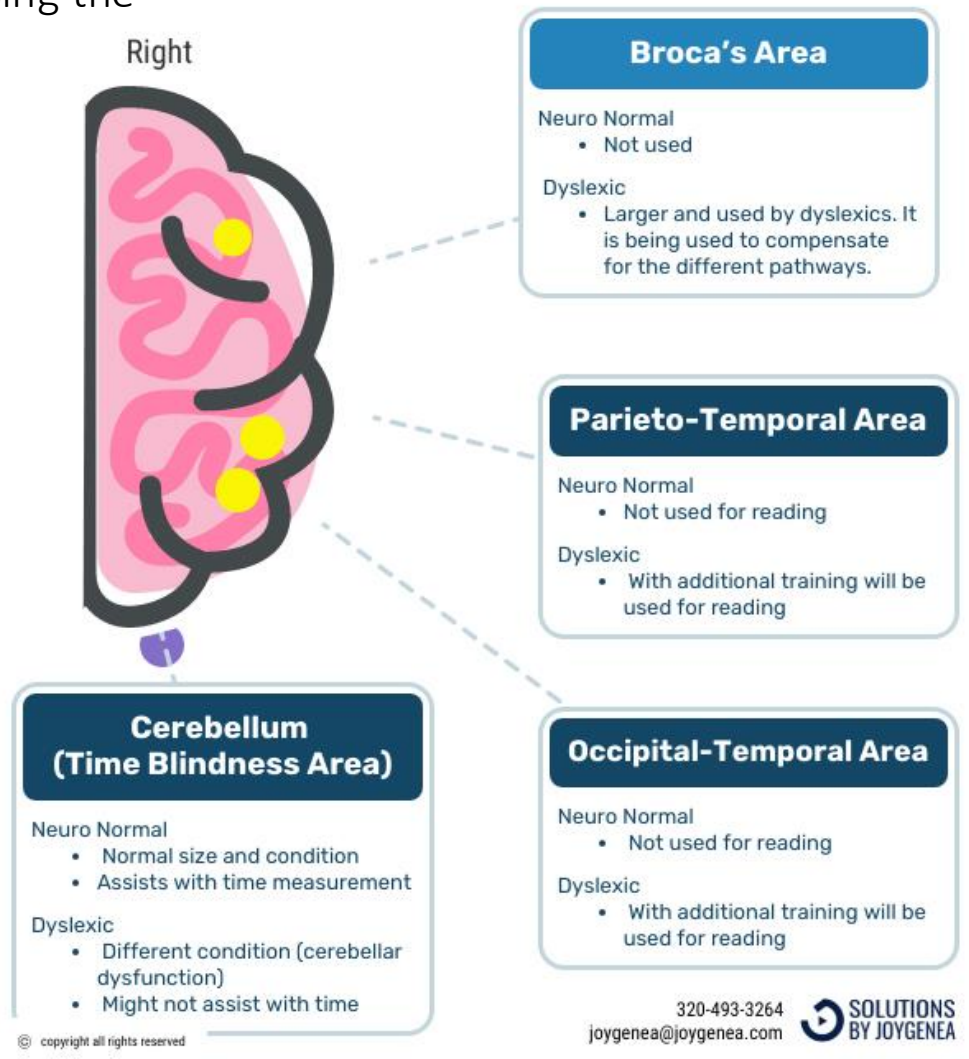
This ends our tour of the reading process in a neuro normal brain. Everything stays on the left side of the brain and is processed linearly.

Now we are going to travel over to the right side of the brain. To compensate for the fact that information doesn't travel back to the Parieto-Temporal Area and Occipital-Temporal Area the right side of the brain builds all new neural pathways using the right side of the brain.

Broca's Area – right side of brain
Neuro Normal Brain
Not used
Dyslexic Brain
Larger and used by dyslexics. It is being used to compensate for the different pathways needed to read and process writing.

Then information travels back to the
Parieto-Temporal Area – right side of brain
Neuro Normal Brain
Not used for reading
Dyslexic Brain
With additional training it will be used for reading

Then the brain processes the information working with the
Occipital-Temporal Area – right side of brain
Neuro Normal Brain
Not used for reading
Dyslexic Brain





Source Dyslexia Symptoms: What stands out? (n.d.). Retrieved September 26, 2021, from https://truthaboutdyslexia.com/wp-content/uploads/2019/04/dyslexia_symptoms.png.

What are the symptoms of dyslexia?

Difficulty exhibited in Preschool-Kindergarten

- Learning to speak
- Trouble learning common nursery rhymes
- Mispronounces familiar words
- Family history of reading difficulties
- Unable to recognize letters in his/her own name
- Learning letter names and sounds
- Understanding the concept of rhyming words
- Isolating sounds in words (What's the first sound in bat?)
- Connecting sounds in words (/b/ /a/ /t/= bat)



Difficulty exhibited in lower elementary



- Difficulty with “small” words (of, am, a, the, to)
- Confusion with words that “look alike” (what/that)
- Reordering letters to make a new word (lots/lost, felt/left)
- Adding words not in the text or deleting small words
- Adding/omitting /s/ (looks/look)
- Changing the ending (baker read as baking)
- Guessing or skipping words
- Replacing a word in the text with one that has the same meaning (truck/car)
- Avoids reading out loud

Upper elementary

- Persistent spelling difficulty
- Slow fluency
- Avoidance
- Weak automatic word recognition





Middle/high school:

- Increased demands expose weaknesses in fluency
- Spelling
- Note-taking
- Complex academic vocabulary

What reading may sound like

- Slow, labored reading
- Frequent pauses or word-by-word reading
- Inaccurate decoding of unfamiliar words
- Difficulty with multisyllabic words
- Substitutions, omissions, or reversals that persist beyond expected developmental periods
- Reduced prosody because so much effort is spent on word recognition

Dyslexia & Oral Language

- Reading development is built on spoken language foundations
- Weak phonological awareness can affect both speech-to-print mapping and decoding
- Language comprehension, vocabulary, syntax, and morphology influence reading comprehension
- Some students have dyslexia plus developmental language disorder

…Um….let's see….uh…Oh yes.
Word Finding Difficulty

"Teacher, I need a, um, you know. You write with it."

"I put it in my…that thingie…that backpack place."

"And we built this, um, this, you know…well, it's like a bridge, and it goes up and if you're in a wheelchair, you can go up on it instead of the stairs. You knows, it's a…uh"

"Uh, I know it. Just a minute….I know what it is. My momma has one. It's a…um…I don't know."

Listen…to how they speak (Expressive Language)

- Says “certain words” incorrectly (“renember/remember”, “prentzel/pretzel”)
- Past tense verb usage (“catched/caught”, “writed/wrote”)
- Pronoun usage (“hims/his”, “thems/they”, “her did it”)
- Sentence structure (“Can I may have that?”, “Why you do that for?”)
- Conversational speech “stammering” due to word finding difficulty

Rote Memory

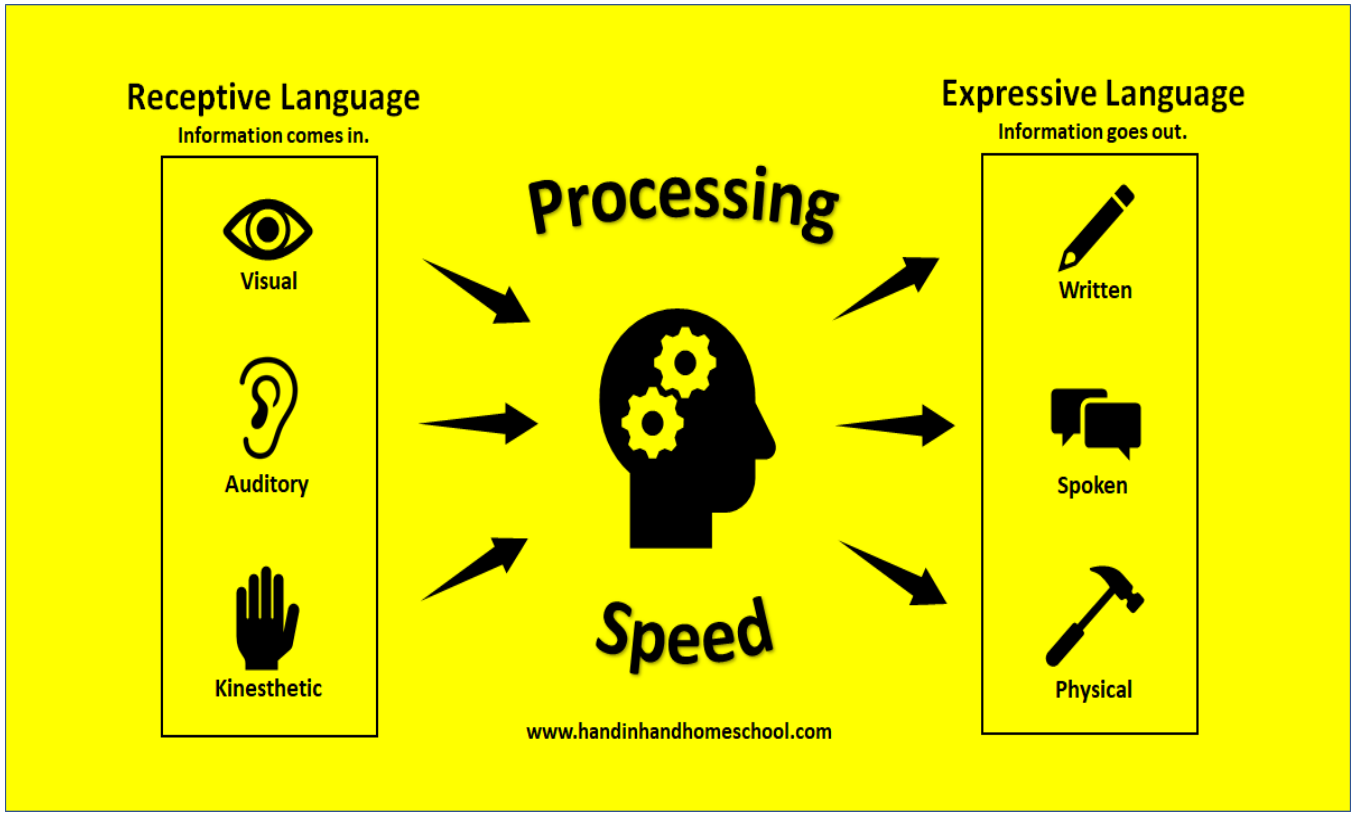
- Alphabet
- Months of the year
- Days of the week
- Date of birth
- Difficulty sequencing events

Listen…for how they listen (Receptive Language)

1. Following commands
2. Understanding a simple question

   “How are you today?”

   “Six”
3. Slow processing



Written work is not the same as spoken work…

- Dislikes writing
- Would rather give oral answers than written
- Spelling may remain significantly weaker than oral language
- Can tell a good story, but not write it
- Writes very simple sentences
- Has difficulty with copying information
- Inconsistent spelling of the same word

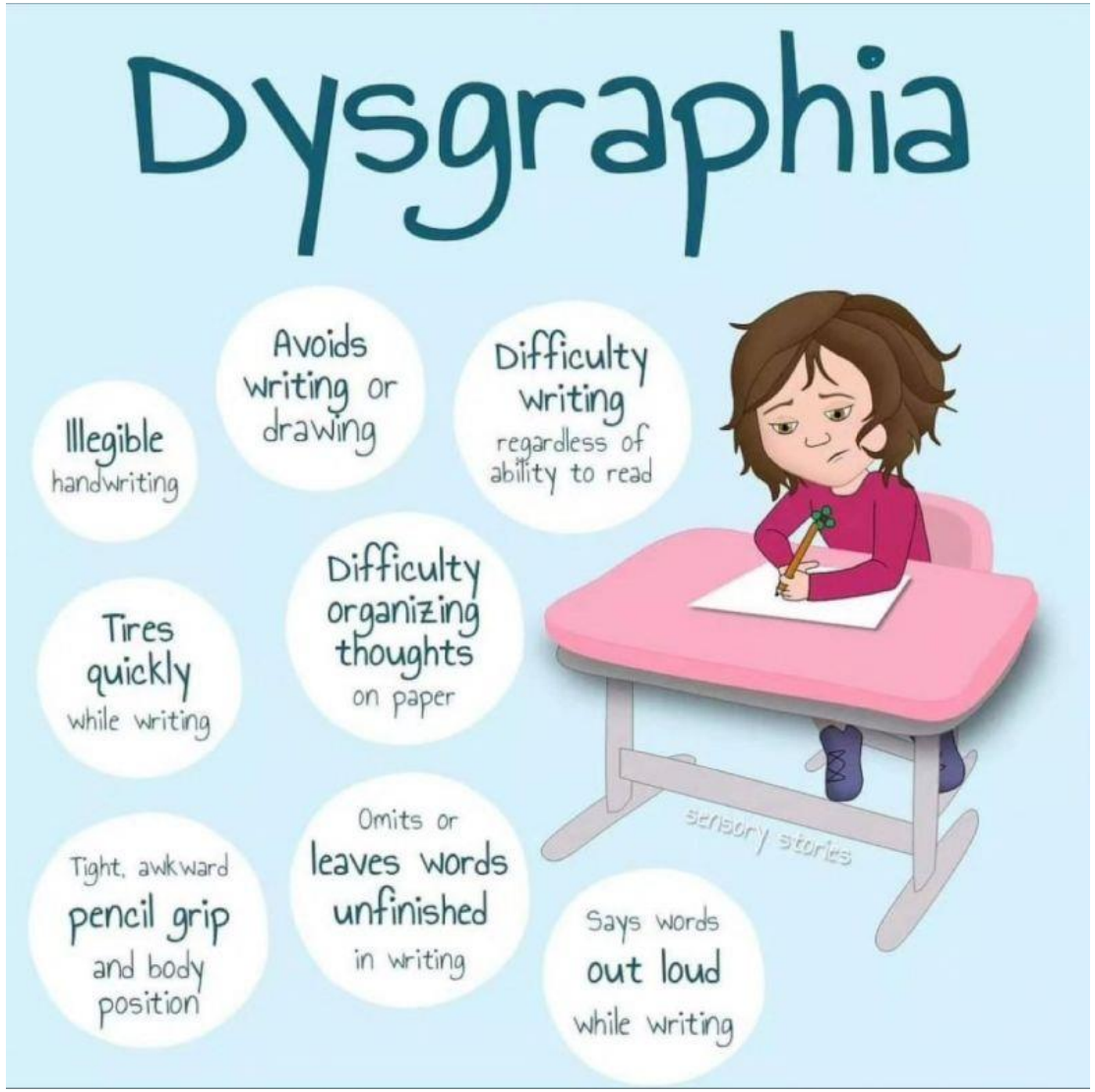
Spelling is poor over time

- Although the student may make 100 on weekly spelling tests, words are NOT retained
- Memorization may temporarily mask underlying weaknesses
- May spell single words well, but not spell the word correctly in a sentence
- Spells better orally, than written
- Difficulty with rote spelling, such as the days of the week

READING by *memorization* which is indicated by:



- Accuracy is inconsistent
- In early grades, student knows word on one page but not on another
- Student does not ***read*** by sounds, but tries to ***remember*** the word

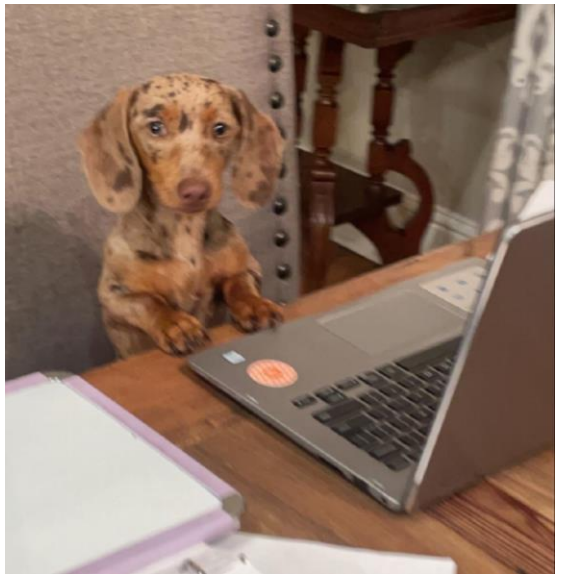


Poorly formed letters

- Letters not placed below the line as indicated

Inconsistent letter height

- Crazy spacing



Teach keyboarding skills if not corrected by 4th grade

What are the causes of dyslexia?

The exact causes of dyslexia are still unknown. Studies of the brain show differences in the way the brain of a person with dyslexia develops and functions.

Dyslexia is NOT due to lack of intelligence or desire to learn!



Risk factors

Dyslexia risk factors include:

- Family history of dyslexia
- Hearing, language, or speech problems
- Developmental Delay
- Premature birth or low birth weight
- Exposure to drugs or alcohol during pregnancy
- Attention Deficit Hyperactive Disorder or other neurological problems

Source Handler, S. M. (2016, August 1). Dyslexia: What you need to know. *Contemporary Pediatrics* . Retrieved September 26, 2021, from https://www.contemporarypediatrics.com/view/dyslexia-what-you-need know-0.

Differential Considerations

- ✓Dyslexia can co-occur with ADHD, developmental language disorder, dysgraphia, and other learning differences
- ✓Attention difficulties can reduce test performance but do not explain persistent decoding patterns by themselves
- ✓Language comprehension difficulties may contribute to reading comprehension problems without causing dyslexia
- ✓Intellectual ability does not rule dyslexia in or out
- ✓Consider instruction, opportunity, intervention history, and the learner's pattern of strengths and weaknesses



What does the Mississippi Dyslexia Law say?

Required Dyslexia Screening

Under Mississippi Code § 37-173-15, each public school district must have a policy requiring dyslexia screening:

- Spring of kindergarten
- Fall of first grade

If a student does not pass the screener, the parent or guardian must be notified of the results. The law does not say that a student must fail this screener before a parent can raise concerns about reading difficulties.

Public schools must ensure that the screener addresses the following components:

- Phonological awareness and phonemic awareness
- Sound symbol recognition
- Alphabet knowledge
- Decoding skills
- Encoding skills
- Rapid naming

Comprehensive dyslexia evaluations

If a child fails the required screener:

- The school district may conduct a comprehensive dyslexia evaluation.
- Parents may choose to have a subsequent evaluation performed by an appropriately licensed professional, including a psychologist, qualifying psychometrist, or licensed speech-language pathologist.
- A qualifying evaluation and diagnosis obtained through the process described in the statute must be accepted by the district when determining eligibility for a dyslexia therapy program at the student's current school or for the Mississippi Dyslexia Therapy Scholarship.



An important distinction: the statute's use of "may" means the school district is not automatically required to conduct a comprehensive dyslexia evaluation simply because a student fails the screener.

Evaluation for an IEP or Section 504 Plan

Mississippi Code § 37-173-16 outlines what districts must do when a student has been diagnosed with dyslexia.

The district must:

- Initially determine whether the student meets IDEA eligibility criteria for an Individualized Education Program (IEP) and services.
- If the student does not qualify under IDEA, proceed with its process for determining eligibility for a Section 504 Plan.
- Develop interventions and strategies to address the student's needs and provide necessary accommodations to support appropriate educational progress.
- Include the three-tier instructional model and applicable IDEA and Section 504 provisions in its approach

What are the rights of a person with dyslexia?

The IDEA, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) clearly define the rights of students with dyslexia and other specific learning disabilities.

These individuals are legally entitled to special services to help overcome and accommodate their learning problems. (Moats & Dakin, 2021)

Moats, L. C., & Dakin, K. E. (2021, March 23). *Dyslexia basics*. International Dyslexia Association. Retrieved September 26, 2021, from https://dyslexiaida.org/dyslexia-basics-2/.

So, what does all that mean?



A dyslexia diagnosis should not simply be dismissed because a student does not qualify for an IEP. The law specifically addresses considering Section 504 eligibility and developing appropriate interventions and accommodations.

However, a dyslexia diagnosis does not automatically establish eligibility for either an IEP or a 504 Plan; the applicable eligibility criteria still matter.

Reading intervention and classroom accommodations

The law requires districts to develop interventions and strategies for students diagnosed with dyslexia to support their educational progress. These may include:

- Targeted reading and spelling intervention
- Accommodations that address the student's documented needs
- Appropriate supports through the school's tiered instructional model
- Consideration of an IEP or Section 504 Plan, as applicable

Mississippi's Department of Education also provides resources for districts on evidence-based interventions, classroom supports, and testing accommodations.

What are the appropriate accommodations for dyslexic students?

Schools can implement academic accommodations and modifications to help students with dyslexia succeed.

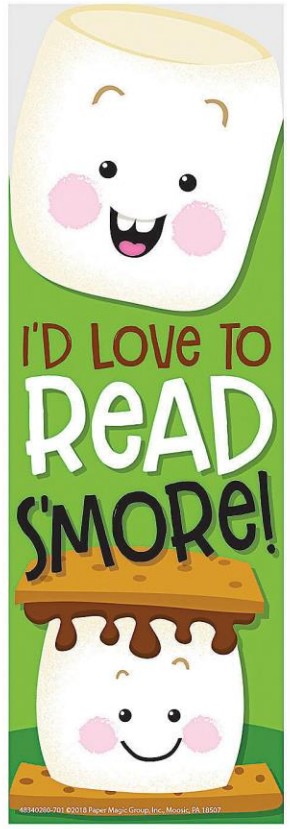
Depending on the student's evaluation and plan, accommodations frequently include:

- Extended time on tests and classroom assignments.
- Audiobooks or text-to-speech assistive technology.
- Permission to write answers directly in test booklets.
- Exemption from or reduced grading penalties for spelling errors on non-spelling assignments.
- Alternative answer sheets or visual prompts.

Material accommodations



- Provide audiobooks (many are free online for students with disabilities)
- Provide pictures for directions
- Provide visual schedule
- Use large print for worksheets
- Simplify directions with the most important ideas
- Provide colored strips or bookmarks to follow along with reading



Teaching Techniques

- Give step-by-step directions (oral and written)
- Repeat directions
- Stick to a daily routine
- Provide notes from the lecture
- Provide organizers to follow along with the lesson
- Review skills daily



Classroom Setup



- Seat students front and center, away from distractions
- Increase distance between desks
- Seat students near a good role model

Seay, B. (2021). *Classroom Accommodations for Children with ADHD*. New York, NY; ADDitude Magazine.

For classwork and taking test

TEACHERS CAN:

- Provide extra time for reading and writing
- Provide different ways to respond; like saying answers or circling responses
- Provide sentence starters that show how to begin written lessons
- Display examples of work that is correct to serve as a model
- Write key points on the board

STUDENTS CAN:



- Use a text reader
- Partner up to study
- Use a note taker for lectures
- Video or audio record lectures



Source Classroom accommodations for dyslexia infographic - e-learning infographics. e. (2017, February 13). Retrieved September 26, 2021, from https://elearninginfographics.com/classroom-accommodations-dyslexia-infographic/.

What resources are available?

Parent and Educator resources



[2]

www.dyslexiaida.org
General inquires email- info@dyslexiaida.org
(410)296-0232



[3]

www.neuhaus.org
(713) 664-7676



[4]

www.mdek12.org
(601) 359-2586

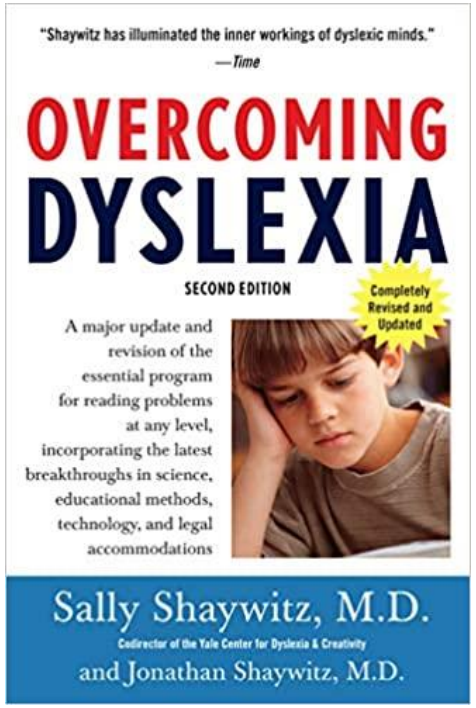
[2] *International dyslexia association*. (n.d.). Retrieved September 26, 2021, from https://1xwltg429wbz1nv5201c3cao-wpengine.netdna-ssl.com/wp-content/uploads/2019/10/cropped-IDA-Logo-Horizontal-NEW-e1570635042229-1.png.

[3] *Neuhaus Education Center*. (n.d.). Retrieved September 26, 2021, from https://www.neuhaus.org/image/2016-design/NEUHAUS-LOGO.png.

[4] *Mississippi Department of Education* . (n.d.). Retrieved September 26, 2021, from https://www.mdek12.org/sites/default/files/mde-master-logo_png_0.jpg.

THE YALE CENTER FOR DYSLEXIA & CREATIVITY

www.dyslexia.yale.edu



Overcoming Dyslexia-2nd edition by Sally Shaywitz

https://improvingliteracy.org

Email:
info@improvingliteracy.org

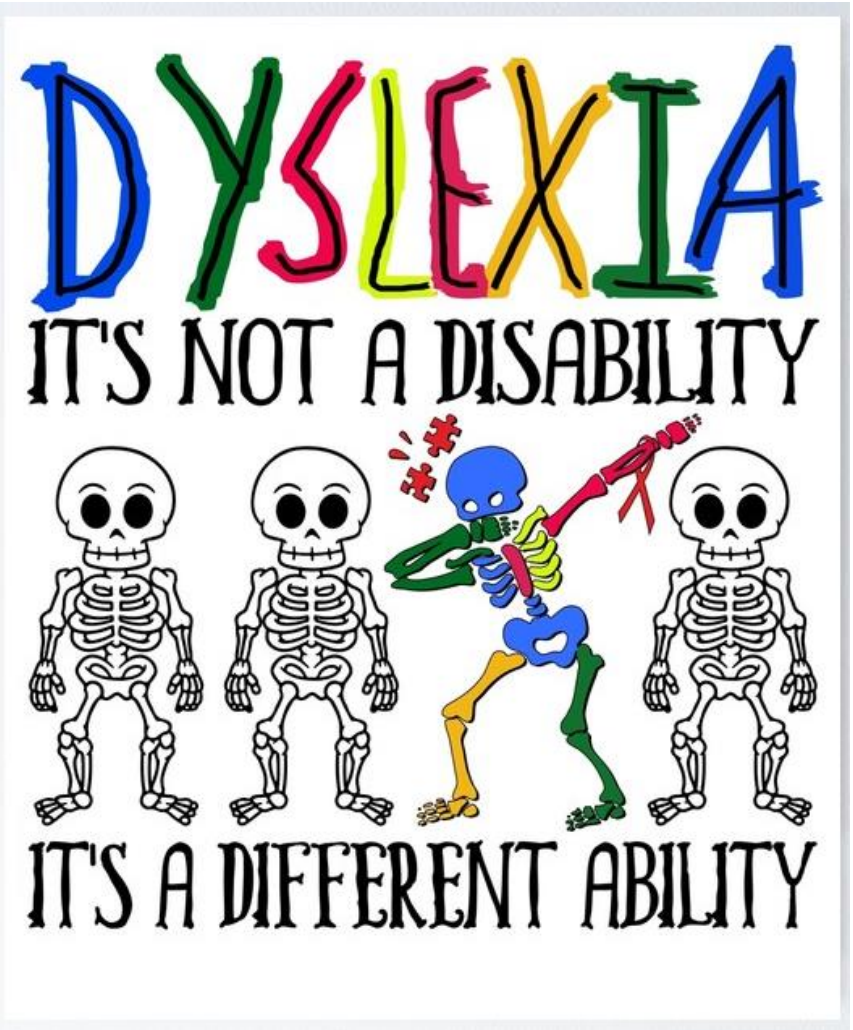
National Center on Improving Literacy
Free Evidence-Based Resources for Literacy Success

[5] *The Yale Center for Dyslexia & Creativity* . (n.d.). Retrieved September 26, 2021, from https://dyslexia.yale.edu/wp-content/themes/ch-theme/img/logo.png.

In Summary…



- A specific learning disability characterized by persistent difficulty with accurate and/or fluent word reading and/or spelling
- Core difficulties are unexpected relative to other abilities and instruction
- Difficulties are often related to phonological processing and learning the relationships between speech sounds and print
- Dyslexia is neurobiological and developmental—not a motivation, vision, or intelligence problem



What Dyslexia is NOT

- Not simply “seeing letters backwards”
- Not caused by low intelligence
- Not caused by laziness or lack of effort
- Not something a child automatically “outgrows”
- Not synonymous with poor comprehension
- Not fixed by more exposure to books alone

References

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H.B. 1031, 2012 Reg. Sess. (MS 2012). HB1031 (As Sent to Governor) - 2012 Regular Session (state.ms.us)

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