Dyslexia

WHAT IS DYSLEXIA?

Dyslexia is a type of specific learning disability in reading. While there is no universally accepted definition of dyslexia, a few commonalities consistently emerge across many of the definitions adopted by various organizations: persistent problems with decoding (word-level reading), accurate and/or fluent word recognition, and encoding (spelling). These difficulties tend to persist despite effective instruction, and are not better explained by other factors. The definition contained in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) was adopted by the WV legislature (§18-20-10) and is cited in WVBE Policy 2419: Regulations for the Education of Students with Exceptionalities:

> **Dyslexia** is an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities. If dyslexia is used to specify this particular pattern of difficulties, it is important also to specify any additional difficulties that are present, such as difficulties with reading comprehension or math reasoning.

HOW CAN LITERACY SCREENERS DETECT RISK FOR DYSLEXIA?

The National Reading Panel (2000) concluded that effective reading instruction should include explicit instruction in phonemic awareness, systematic phonics instruction, methods to improve fluency, vocabulary development, and ways to enhance comprehension. These five "big ideas" continue to be supported by research (National Center on Improving Literacy [NCIL], 2022).

Grade-appropriate universal screening of these areas and other literacy-related precursor skills allows us to determine which students may be at risk for future difficulty in reading, including those who may have dyslexia, and to decide which students need intervention. Classification accuracy increases when multiple literacy skills are assessed (International Dyslexia Association [IDA], 2019).

Components of Successful Screening Measures in K-2

Kindergarten	First Grade	Second Grade
Phonological awareness* » Phoneme segmentation* » Phoneme blending » Onset and rime ***Rapid automatic naming*** » Letter naming fluency » Letter-sound association ***Phonological memory*** » Nonword repetition	***Phoneme awareness*** » Phoneme segmentation » Phoneme blending » Phoneme manipulation ***Phonological memory*** » Nonword repetition ***Rapid automatic naming*** » Letter naming fluency » Letter-sound association ***Oral vocabulary Word identification**** » Nonwords* » Real words ***Word recognition fluency**** » Accuracy and rate ***Oral reading fluency* (beginning mid-year)***	***Word identification**** » Nonwords » Real words ***Oral reading fluency**** ***Reading comprehension***

Note: *Components with an asterisk (*) are recommended areas for progress monitoring in the grades specified.*

(IDA, 2019)

Early Intervention

Students found to be at risk for poor reading outcomes following universal screening should receive evidence-based intervention that is:

- » **explicit** (taught directly with modeling and frequent feedback),
- » **systematic** (taught in a logical sequence),
- » **diagnostic** (based on student progress and needs),
- » **multimodal** (hands-on integration of listening, speaking, reading, and writing).

(IDA, 2019)

Further, intervention should incorporate the concepts of:

- » **phonology** (study of sounds in spoken language)
- » **sound-symbol association** (mapping sounds [phonemes] to letters [graphemes])
- » **syllables** (a unit of oral or written language with one vowel sound)
- » **morphology** (study of base words, roots, prefixes, and suffixes)
- » **syntax** (grammar and sentence structure)
- » **semantics** (meanings of words and sentences)

(Greene, n.d.)

Progress in reading skill development should be monitored at reasonable intervals to determine the effectiveness of intervention being provided, and to inform instructional decision-making.

Intervening early and effectively is associated with improved outcomes (Fletcher et al., 2018).

HOW IS DYSLEXIA DIAGNOSED?

If a student has persistent difficulty with literacy skills despite being provided increasingly intensive evidence-based intervention within a multi-tiered system of support framework, referral for a multidisciplinary evaluation may be warranted. While a school-based eligibility committee can identify a student as needing special education services as a student with a specific learning disability, a diagnosis of dyslexia can only be rendered by qualified professionals, such as school psychologists, clinical psychologists, or neuropsychologists.

A comprehensive evaluation for a suspected specific learning disability in reading, including dyslexia, could include the following components:

Background information, including birth history, family history, developmental history including speech and language, early educational history, risk factors associated with dyslexia, early screening and benchmark assessments of literacy, and hearing/vision screenings

Documentation and analysis of instructional response data using reliable and valid progress monitoring measures demonstrating response to increasingly intense interventions and supports provided with fidelity

In-depth assessment of:

- » Phonological processing
- » Word reading
- » Oral reading fluency
- » Spelling / Encoding
- » Reading comprehension*
- » Written expression*
- » Speech and language**
- » Mathematics**
- » Other areas as appropriate to identify all special education and related service needs, and to rule out exclusion factors (e.g., cognitive assessment, behavior rating scales, occupational/physical therapy evaluation).

* Denotes a secondary academic area often negatively affected by dyslexia
** Denotes a supplemental evaluation area to aid in developing a comprehensive treatment plan for a student with dyslexia

Academic difficulties associated with a specific learning disability, such as dyslexia, cannot be the primary result of any of the following **exclusion factors:**

- » A visual, hearing, or motor disability
- » Intellectual disability
- » Emotional disturbance
- » Lack of appropriate instruction in English language arts, or mathematics
- » Cultural factors
- » Environmental or economic disadvantage
- » Limited English proficiency

WHAT HAPPENS AFTER DYSLEXIA IS DIAGNOSED?

Depending on the severity and the student's needs, a student with dyslexia may be eligible for special education and related services through an Individualized Education Program (IEP), or for accommodations through a Section 504 Plan. Regardless of the type of legal protections and educational supports for which a student with dyslexia may qualify, evidence-based intervention should continue in order to facilitate further reading skill development and maintenance. Students with dyslexia benefit the most from instruction that is based on science of reading research, and that incorporates a structured literacy approach. This intervention should be provided in addition to any necessary accommodations that enable the student to be successful in the educational environment.

Science of Reading
» A body of multidiscplinary reading-related research findings that is used to inform the development of effective instructional practices
» Supports the five areas of phonemic awareness, phonics, fluency, vocabulary, and comprehension
» Continues to accumulate new evidence to inform effective reading instruction

(NCIL, 2022.)

Structured Literacy
» An instructional approach based on the science of reading
» Is explicit, systematic, cumulative, diagnostic, and multimodal/multisensory
» Teaches phonology, sound-symbol association, syllables, morphology, syntax, and semantics

(IDA, 2020.)

Resources

- » Florida Center for Reading Research | *https://fcrr.org/*

- » International Dyslexia Association (IDA) | *https://dyslexiaida.org/* & *https://dyslexialibrary.org/*

- » International Literacy Association | *https://www.literacyworldwide.org/*

- » IRIS Center | *https://iris.peabody.vanderbilt.edu/*

- » Learning Disabilities Association of America (LDA) | *https://ldaamerica.org/*

- » National Center for Learning Disabilities (NCLD) | *https://www.ncld.org*

- » National Center on Improving Literacy (NCIL) | *https://improvingliteracy.org/*

- » National Center on Intensive Intervention (NCII) | *https://intensiveintervention.org/*

- » Reading Rockets | *https://www.readingrockets.org/*

- » Understood | *https://www.understood.org/*

References

» American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed., text rev.).

» Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2018). Learning disabilities: From identification to intervention. Guilford Publications.

» Greene, K. (n.d.). *What is structured literacy?* Understood. *https://www.understood.org/en/articles/what-is-structured-literacy*

» National Reading Panel (U.S.) & National Institute of Child Health and Human Development (U.S.). (2000). *Report of the National Reading Panel: Teaching children to read : an evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. U.S. Dept. of Health and Human Services, Public Health Service, National Institutes of Health, National Institute of Child Health and Human Development.

» National Center on Improving Literacy. (2022). *The Science of Reading: The Basics*. Washington, DC: U.S. Department of Education, Office of Elementary and Secondary Education, Office of Special Education Programs, National Center on Improving Literacy. Retrieved from *http://improvingliteracy.org*.

» International Dyslexia Association. (2020). *Structured literacy: Effective instruction for students with dyslexia and related reading difficulties* [Fact sheet]. Retrieved from *https://dyslexiaida.org/structured-literacy-effective-instruction-for-students-with-dyslexia-and-related-reading-difficulties/*

» International Dyslexia Association. (2019). *Universal screening: K–2 reading* [Fact sheet]. Retrieved from *https://dyslexiaida.org/universal-screening-k-2-reading-2/*

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