WDE

Dyslexia Guidebook

Wyoming Department of Education

122 W. 25th St., Ste. E200 | Cheyenne, WY 82002
P: 307-777-7675 | F: 307-777-6234 | edu.wyoming.gov

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Introduction

The purpose of the handbook is to guide educators, administrators, parents/guardians, and students in accurate identification, assessment, instruction, and appropriate accommodations for students with characteristics of dyslexia. It is to be used as a resource tool to determine best practices for students with or presenting the characteristics of dyslexia.

Executive Summary

Reading acquisition is a major step in child development.[1] Just as children progress through predictable physical stages of development, their brains also have natural predictable stages of spoken language development. Babies and young children are biologically wired to learn to speak and walk without formal instruction. However, learning to read is not natural to the human brain. The evolutionary neural systems that support language and visual processing must "reorganize" to support reading.[2] All children must go outside of what our brains are naturally wired to learn and create new pathways of thought in order to read and write. Learning to read is an extremely complex process that involves mastering the relationship between speech sounds and symbols, more commonly called letters. This mastery of the structure of how language is organized is called "orthographic mapping." Just as an explorer would record on a map the structure and outline of a new area, our brains "map out" and organize how letters, sounds, words, and sentences work in English. This mapping occurs when the brain is taught how to read, including sound-symbol correspondences, in a systematic, explicit, and highly organized manner. This process allows the brain to map words into one's long-term memory and recall instantaneously. In students identified as or showing the characteristics of dyslexia, orthographic mapping is hindered, thus hindering the dyslexic student's ability to accurately and fluently map speech sounds to print when reading and writing.

The International Dyslexia Association (IDA) estimates that 15-20% of the population may have symptoms of dyslexia;[3] however, it also states that the exact number of those with dyslexia may not be accurately identified until there is a universal agreement on the definition of dyslexia and more precise ways to differentiate the symptoms of dyslexia. Many researchers and specialists argue that the importance doesn't lie in how many people actually have dyslexia but how we help those who struggle with reading, writing, and spelling regardless of the presumed cause.[4]

According to Nancy Young, Ed.D., only approximately 35% of students learn to read easily with generalized, overarching instruction, meaning their instruction is broad and not necessarily explicit, systematic, and direct.[5]

1 Dehaene, S. (2009). Reading in the Brain: The new science of how we read. NY: Penguin Books.
2 Dehaene, S. (2009). Reading in the Brain: The new science of how we read. NY: Penguin Books.
3 International Dyslexia Association (IDA). (2016). Dyslexia Basics. Retrieved from: **https://dyslexiada.org/dyslexia-basics-2/**
4 Hasbrouck, J. (2020) Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.
5 Young, N. 2012 (updated 2020). The Ladder of Reading Infographic. **https://www.nancyyoung.cal**

It is imperative for all educators and parents to understand the necessary components in teaching reading to all students, including those identified with dyslexia. This instruction should include phonological and phonemic awareness, phonics (sound-symbol correlation), alphabet awareness and knowledge, word identification, decoding (reading), and encoding (spelling).[6]

Definition & Characteristics of Dyslexia

Learning to read is an exciting milestone. However, many struggle to master early literacy skills. Reading comprehension is the product of a student's ability to both decode and comprehend text.[7] Students can vary in the areas where they have difficulty or a disability (non-ability). Educational researchers Gough & Tunmer described three ways students manifest a reading disability: (1) An inability to decode; (2) An inability to comprehend; (3) An inability to both decode and comprehend. Dyslexia is the form of reading disability that affects a student's specific ability to decode (read) and spell words. Dyslexia is not due to either lack of intelligence or desire to learn.[8] The definition of dyslexia from the International Dyslexia Association is:

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. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.[9]

This definition emphasizes the word "unexpected" as an indicator of dyslexia. If appropriate evidence-based instruction has been delivered, the student has average cognitive ability, and something appears unexpected in relation to these factors, it could be a sign of dyslexia. Dyslexia is a disability that manifests along a continuum of severity. Just as hair color or eye color can vary when inherited from parents, the degree to which a child's neurobiological makeup varies. The degree to which students' ability to read and spell is affected can be limited to very severe. Students can perform well below grade level expectations or have average accuracy and fluency but still not perform at the level of proficiency that would be expected for their grade level or age.

The most common cause of dyslexia originates from a deficit or lack of skill in phonological awareness. Phonological awareness is the ability of the brain to notice, identify, and manipulate the units of spoken language starting with words and word parts. Phonological abilities are not related to intelligence and, in fact, are quite independent of intelligence.[10] The degree to which students develop proficient phonological skills, especially phonemic awareness (awareness of individual speech sounds), is influenced by both their individual brain makeup and the strength of the phonological instruction they receive. Proficiency in phonological abilities is the foundation on which all reading and writing is built.

6 Hasbrouck, J. (2020). Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.
7 Gough, P. and Tunmer, W. (1986). Decoding, reading, and reading disability. Remedial and Special Education., 7, 6-10.
8 International Dyslexia Association (2017). Dyslexia in the Classroom: What Every Teacher Needs to Know. IDA. Baltimore, MD. Retrieved from **https://dyslexiaida.org/dyslexia-in-the-classroom/**
9 Brady, S. (2019). The 2003 IDA definition of dyslexia: A call for changes. Perspectives on Language and Literacy, 45(1), 15-21
10 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.

Reading and writing that is slow, inaccurate, and laborious is one of the most common of the "unexpected" manifestations of dyslexia. Often, students will avoid reading and writing whenever possible. This is because their brains do not recognize strings of letters as words. Unless the reader-to-be can convert the printed characters into the phonetic code (spoken language), the letters remain just a bunch of lines and circles totally void of any linguistic meaning.[11] The student must also be able to retrieve the correct letter or letter sequence to spell the word correctly. When words and spelling patterns have not been explicitly taught and put into long-term memory, students cannot become automatic readers and spellers.

In summary, the following are the primary characteristics of dyslexia:

- Difficulty accurately decoding (reading) unfamiliar words.
- Difficulty reading words in isolation.
- Difficulty with spelling and writing.
- Difficulty in oral reading which can include slow, inaccurate, and labored reading.

A Note About Disability

"Learning Disability" (LD) is a general term that describes any kind of learning problem. A Specific Learning Disability (SLD) refers to a "disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, write, spell, or do mathematical calculations."[12] Dyslexia is defined as a specific learning disability.

Individuals with dyslexia may have other related reading and learning disabilities. These may include:

- Dysgraphia - written expression difficulties.
- Dyscalculia - math.
- Attention Deficit/Hyperactivity Disorder.
- Executive Functioning/organization.
- Dyspraxia - motor skills.
- Developmental language comprehension disorder.
- Nonverbal learning disorders.[13]

Twice-exceptional students may not initially appear to be at risk for dyslexia through a screener. Twice-exceptional, or 2e, is a term used to describe students who are both intellectually gifted and learning disabled, which may include students with dyslexia. These students may fall through the screening cracks because they do not present themselves with visible reading difficulties. Their giftedness may overshadow the signs or characteristics of dyslexia.

The International Dyslexia Association's Gifted and Dyslexic: Identifying and Instructing the Twice Exceptional Student Fact Sheet (2013), identifies the following common characteristics of twice-exceptional students.

- Superior oral vocabulary.
- Advanced ideas and opinions.
- High levels of creativity and problem-solving ability.

11 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.

12 Individuals With Disabilities Education Act, 20 U.S.C. § 1401 (30) (2004).

13 International Dyslexia Association (IDA). (2019). IDA Dyslexia Handbook: What Every Family Should Know (pp. 5-6). The International Dyslexia Association (IDA).

- Extremely curious, imaginative, and questioning.
- Discrepant verbal and performance skills.
- Clear peaks and valleys in the cognitive test profile.
- Wide range of interests not related to school.
- Specific talent or consuming interest area.
- Sophisticated sense of humor.

Characteristics Of Dyslexia By Age Group

Preschool Years

- Delayed speech. Delayed speech doesn't always mean a child will be dyslexic but if the child is delayed (not saying single words or stringing words together by 18 months) AND there is also a history of reading difficulties in the family, this could be a predictor.
- Trouble learning common nursery rhymes, such as "Jack and Jill". Children's familiarity with nursery rhymes turns out to be a strong predictor of their later reading success. According to Sally Shaywitz, the difficulty in identifying rhymes is not necessarily a matter of intelligence but difficulty in the sound structure of language.[14]
- Difficulty learning (and remembering) the names of letters in the alphabet.
- Seems to be unable to recognize letters in his/her own name.
- Mispronounces familiar words. Young children who have difficulty in pronouncing common words may be at risk for dyslexia. It can appear in speaking, as if the phonemes in their words are jumbled or fumbling over each other as they are coming out.
- Doesn't recognize rhyming patterns like cat, bat, rat.
- A family history of reading and/or spelling difficulties.

Kindergarten & First Grade

- Failure to understand that words come apart; i.e. catnip can be pulled apart "cat" and "nip" and even more so, that each word has individual sounds /k/-/a/-/t/-/n/-/i/-/p/.
- Inability to read common one-syllable words or to sound out even the simplest of words such as cat, hop, bat, etc.
- Complains about how hard reading is; "disappears" when it is time to read .
- A history of reading problems in parents or siblings.
- Reading errors that show no connection to the sounds of the letters on the page—will say "puppy." instead of the written word "dog" on an illustrated page with a picture of a dog.
- Does not associate letters with sounds, such as the letter b with the "b" sound.

Second & Third Grade

Can include previous characteristics along with these:

- Inability to read small function words such as that, an, in.
- Very slow in acquiring reading skills; reading is slow and awkward.
- Difficulty recognizing common irregular words (to, from, said, etc.) and common function words (at, that, etc.)

14 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.

- Avoids reading out loud.
- May rely on pictures or guessing at words.
- Doesn't seem to have a strategy for reading new words; difficulty decoding unfamiliar words.
- Omitting parts of words when reading; failure to decode parts within a word.
- Difficulty reading fluently.

Upper Elementary

Reading & Spelling

Can include previous characteristics along with these:

- Difficulty and/or fear of reading aloud.
- Avoidance of reading for pleasure.
- A reliance on context to discern the meaning of what is being read.
- Oral reading can be filled with substitutions, omissions, and mispronunciations.
- Choppy, labored oral reading.
- Trouble reading unknown/unfamiliar words that must be sounded out.
- Failure to sound out words.
- Incorrect spelling, with words not resembling true spelling.

Speaking

- Searches for a specific word and ends up using vague language, such as "stuff" or "thing," without naming the object.
- Speech that is not fluent; pauses, hesitates, and/or uses lots of "um's" when speaking.
- Confuses words that sound alike, such as saying "tornado" for "volcano," substituting "lotion" for "ocean."
- Mispronunciation of long, unfamiliar, or complicated words; the fracturing of words or leaving out parts of words or confusing the order of the parts of words, i.e. "amulinum" instead of "aluminum."
- Needs more time to summon an oral response or the inability to come up with a verbal response quickly.

Middle School

Reading & Spelling

Can include previous characteristics along with these:

- Inability to finish tests on time.
- Homework that never seems to end.
- Lack of enjoyment in reading.
- Avoidance of reading for pleasure.
- Difficulty or lack of strategy to tackle multisyllabic words.
- Incorrect spelling, with words not resembling true spelling.

Speaking

- Can include previous characteristics along with these:
- Searches for a specific word and ends up using vague language, such as "stuff" or "thing," without naming the object.
- Speech that is not fluent; pauses, hesitates, and/or uses lots of "um's" when speaking.
- Confuses words that sound alike, such as saying "tornado" for "volcano," substituting "lotion" for "ocean."

- Mispronunciation of long, unfamiliar, or complicated words; the fracturing of words or leaving out. parts of words or confusing the order of the parts of words, i.e. "amulinum" instead of "aluminum."
- Needs more time to summon an oral response or the inability to come up with a verbal response quickly.

High School

Reading & Spelling, School & Life

- Can include previous characteristics along with these:
- Trouble remembering dates, names, telephone numbers, random lists
- Struggles to finish tests on time
- Extreme difficulty learning a foreign language
- Poor spelling
- Messy handwriting
- Low self-esteem that may not be immediately visible

Young Adult & Adult

Reading & Spelling

Can include previous characteristics along with these:

- A childhood history of reading and spelling difficulties
- While reading skills have developed over time, reading still requires great effort and is done at a slow pace
- Trouble reading uncommon, strange or unique words such as people's names, streets, and locations
- Rarely reads for pleasure
- Lack of fluency
- Extreme fatigue from reading
- Slow reading of most materials—books, manuals, subtitles in films
- Avoids reading aloud; embarrassment in reading aloud
- Unusually long hours reading school or work-related materials
- A preference for books with pictures, figures, graphs, or charts
- Spelling that remains incorrect and a preference for less complicated words

Speaking

- Earlier oral language difficulties persist, including a lack of fluency and glibness; frequent use of "um's" and imprecise language; and general anxiety when speaking
- Often pronounces the names of people and places incorrectly; trips over parts of words
- Difficulty remembering names of people and places; confuses names that sound alike
- Struggles to retrieve words; frequently has "It was on the tip of my tongue" moments
- Rarely has a fast response in conversations; struggles when put on the spot
- Spoken vocabulary is smaller than listening vocabulary
- Avoids saying words that might be mispronounced

Life

- Despite good grades, often says he or she is dumb or is concerned that peers think he or she is dumb
- Penalized by multiple-choice tests
- Frequently sacrifices social life for studying
- Suffers extreme fatigue when reading
- Performs rote clerical tasks poorly

All characteristics from: Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level (pp. 122-124). Knopf, New York.

Myths and Misconceptions

Dyslexia is often misunderstood, surrounded by a range of myths that can hinder effective support and intervention. In this section, we will debunk common misconceptions and present the realities of dyslexia, providing a clearer understanding of this learning difference. By dispelling these myths, we aim to foster a more informed and supportive environment for individuals with dyslexia.

Myth	Reality
Individuals with dyslexia "read backwards."	Their spelling can look quite jumbled at times, not because they read or see words backward, but because students have trouble remembering letter symbols for sounds and letter patterns in words.[15] This misconception is so prevalent that often students who do not reverse their letters often go undiagnosed. Reversals are irrelevant to the diagnosis of dyslexia. A related misconception is that mirror writing invariably accompanies dyslexia. In fact, backward writing and reversal of letters and words are common in the early stages of writing development among dyslexic and non-dyslexic children.[16]
Dyslexia is a disease.	Dyslexia is not a disease. With proper diagnosis, appropriate and timely instruction, hard work, and support from family, teachers, friends, and others, individuals who have dyslexia can succeed in school and later as adults.[17]
Individuals with dyslexia have a lower level of intelligence.	In fact, more often than not, the complete opposite is true.[18]

15 International Dyslexia Association (2017). Dyslexia in the Classroom: What Every Teacher Needs to Know. IDA. Baltimore, MD. Retrieved from https://dyslexiaida.org/dyslexia-in-the-classroom/.

16 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.

17 International Dyslexia Association (2017). Dyslexia in the Classroom: What Every Teacher Needs to Know. IDA. Baltimore, MD. Retrieved from https://dyslexiaida.org/dyslexia-in-the-classroom/

18 International Dyslexia Association (2017). Dyslexia in the Classroom: What Every Teacher Needs to Know. IDA. Baltimore, MD. Retrieved from https://dyslexiaida.org/dyslexia-in-the-classroom/

Myth	Reality
Children with dyslexia will outgrow it.	Children will not outgrow dyslexia, but it can be remediated with the proper, evidence-based instruction that is systematic, sequential, and structured in nature.[19]
Dyslexia is caused by vision problems (eyes don't track correctly).[20]	Vision problems can certainly create problems in reading; however, dyslexia is not caused by problems in vision or eyesight.[21]
More boys than girls have dyslexia.	In general, more boys than girls are typically referred for both academic and behavioral concerns in school, but research has verified that only slightly more boys than girls have the neurological markers of dyslexia.[22]
ADHD is part of dyslexia.	Attention Deficit/Hyperactivity Disorder often occurs in students identified as having specific learning disabilities, including dyslexia, but they are separate disorders and do not always co-occur with academic problems.[23]
Dyslexia cannot be identified before third grade.	Students who are at risk of reading difficulties due to dyslexia can be accurately identified as early as 4 years old and research is continuing that may move that age significantly earlier.[24]
Students with dyslexia are lazy and just need to work harder.	Students with dyslexia are already working extremely hard! Children with dyslexia use nearly five times the brain area as their neurotypical peers while performing a simple language task.[25]

Identification and Evaluation of Students with Dyslexia

The MTSS (Multi-Tiered System of Support) process is followed to accurately identify students with dyslexia and evaluate their level of support needed for literacy success. This process can begin as early as kindergarten. Early identification is critical because the earlier the intervention, the easier it is to remediate.[26]

19 Hasbrouck, J. (2020). Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.

20 Hasbrouck, J. (2020). Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.

21 American Academy of Pediatrics, Section on Ophthalmology, Council on Children with Disabilities, American Academy of Ophthalmology, American Association for Pediatric Ophthalmology and Strabismus, American Association of Certified Orthoptists; Learning Disabilities, Dyslexia, and Vision. Pediatrics August 2009; 124 (2): 837–844. 10.1542/peds.2009-1445

22 Fletcher, J.M., Lyon, G.R., Fuchs, L.S., & Barnes, M.A. (2019). Learning Disabilities: From identification to intervention. NY: Guilford Press

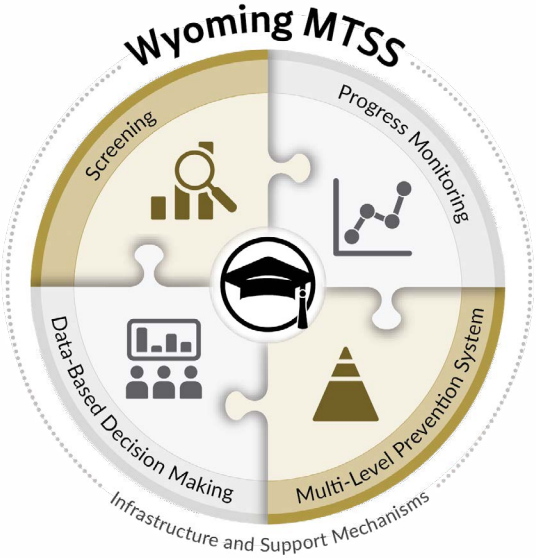
23 Brown, T.E. (2013). A new understanding of ADHD in children and adults. NY: Routledge.

24 Gabb, N. (2019). Identifying risk instead of failure. Reading impairments: Moving from a deficit -driven to a preventative model. Blog on Learning & Development. **https://bold.expert/identifying-risk-instead-of-failure/**

25 University of Washington. (1999, October 6). Dyslexic children use nearly five times the brain area to perform an ordinary language task as normal children. Science Daily. Retrieved July 10, 2019 from **www.science daily.com/reelases/1999/10/991006075536.htm**

26 Hall, S., & Moats, L.C. (1999). Straight Talk About Reading: How Parents Can Make a Difference During the Early Years. Lincolnwood, IL: Contemporary Books

At-risk children in mid-kindergarten can be identified with 85% accuracy, and if intervention is not provided before the age of eight, the probability of reading difficulties continuing into high school is 75%.[27] Wyoming laws support the use of this process. Current laws and further details can be accessed at **https://www.wyoleg.gov/Legislation/2022/SF0032**.



The MTSS process is an effective way of collecting necessary data from students with dyslexia for instructional decision-making and allows schools to plan educational goals accordingly. According to Shaywitz, there are three steps to the evaluation process:

- Establish a reading problem according to age and education. This step is most critical.
- Gather evidence supporting its "unexpectedness"; high learning capability may be determined solely based on an educational or professional level of attainment.
- Demonstrate evidence of an isolated phonological weakness, with other higher-level language functions relatively unaffected.[28]

Establish A Reading Problem

Various identifiers should be considered when looking at all aspects of a student's educational identification - family history, attendance, vision, and hearing screening,[29] as well as instructional practices.

A Note About Family History

Dyslexia is a highly heritable condition, but the heritability is clearly influenced by the home literacy environment and by instruction.[30] Family history can play a significant role in identifying a student with dyslexia. The caveat to family history is many adults were not identified in their younger years and therefore cannot definitively say whether or not they have dyslexia. Children with two impacted parents have a significantly higher risk of impairment than those who have no or only one parent; however, having a parent with dyslexia does not necessarily mean the child will also have it. It takes a variety of factors and evaluation tools to make that determination.

27 Hall, S., & Moats, L.C. (1999). Straight Talk About Reading: How Parents Can Make a Difference During the Early Years. Lincolnwood, IL: Contemporary Books

28 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.

29 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.

30 Miciak, J. & Fletcher, J. (2020). The Critical Role of Instructional Response for Identifying Dyslexia and Other Learning Disabilities. Journal of Learning Disabilities. Vol. 53 (5) 343-353.

Administer A Universal Screening

Universal screeners are the next step in the MTSS process. They are typically administered to whole groups or classrooms. Screeners are designed to be efficient and easily administered so educators can assess many children quickly. Screening measures, by definition, are typically brief assessments of a skill or ability that is highly predictive of a later outcome.[31] The screener is used to take a temperature check and determine which students are not currently meeting literacy norms or are at risk of not meeting future literacy norms. Once the "temperature is taken" more tests are needed to determine what is the cause. Early screening provides valuable information in helping to identify students who may need extra instruction or support early on. Identifying risk is critical because in many children, the reading problem can be prevented or at least ameliorated.[32] It does not determine or denote exactly how a student will perform later in reading, but it can help us to know which students might need further testing and ultimately will require extra intervention.

Keep in mind that not all positive results from a screener are reason to believe the student is certain to have reading difficulties. The converse is also true. Screeners can also provide false negatives meaning the screener may provide a negative result and the student develops reading difficulties later on.[33] We must be cognizant that the screener is just one measure. Additional diagnostic testing is used to gather additional data points for identification of reading difficulties and dyslexia. The Wyoming Department of Education rules for universal screening can be accessed at **https://rules.wyo.gov/Search.aspx?mode=1**. Statute requires the use of universal screeners. A list of approved universal screeners can be found on the Wyoming Department of Education's website.

Administer Diagnostic Assessment

Screeners identify risk and diagnostics assessments identify specific needs. Diagnostic assessments are specifically selected to determine the skill strengths and skill weaknesses of a student in a specific area, always as efficiently as possible, with optimal reliability (accuracy), and validity (results are useful for making decisions).[34] Diagnostic assessments will also vary depending on the age and grade level of the student being assessed. Diagnostic assessments will tell educators what kind of help a student needs and aid in determining specific skills to address in instruction.

The essential, critical step that must be taken in every school is to use these screening and diagnostic assessments to identify every student who is not meeting the early benchmarks of skilled reading, and immediately provide effective, intensive, appropriate instruction.[35] Once students reach 3rd grade, a case can be made to consider skipping the screening step and simply begin with a diagnostic assessment for those students who are obviously struggling with reading, writing, and spelling.[36]

31 International Dyslexia Association (2017) Effective Reading Instruction. **https://dyslexiaida.org/effective-reading-instruction/**.
32 Miciak, J. & Fletcher, J. (2020). The Critical Role of Instructional Response for Identifying Dyslexia and Other Learning Disabilities. Journal of Learning Disabilities. Vol. 53 (5) 343-353.
33 Hasbrouck, J. (2020). Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.
34 Hasbrouck, J. (2020). Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.
35 Hasbrouck, J. (2020). Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.
36 Hasbrouck, J. (2020). Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.

There are many types of diagnostic assessments that can be used with students. Contact your building leadership to know which research-based universal screener and diagnostic assessments are used in your district.

Effective Instruction for Students with Dyslexia

Children are born with the ability to learn speech without formal instruction. However, learning to read and write proficiently is not natural. Reading and writing must be taught and learned by all students. As students learn the structure of the English language, they create a storage area that some call our "letterbox" that stores all the symbols (letters), combinations of letters (words), and patterns (spellings and syllable types) in an organized way so they can be retrieved quickly and efficiently.[37]

The acquisition process and storage of the structures of English in the brain are the same for all children. Students with reading disabilities, including but not limited to dyslexia, require much more intentional and intensified instruction than other students to build the same neurological pathways. This includes increased repetitions and/or the addition of multisensory components to learning activities to obtain the same level of mastery. However, even a person with very low genetic risk would demonstrate symptoms of dyslexia if they were never shown print or taught to read.[38] Some students may demonstrate characteristics of dyslexia that do not have a biological predisposition but have developed the same behaviors because of insufficiently strong literacy instruction. "Early intervention may prevent or minimize reading difficulties; much hinges on instruction."[39]

Structured Literacy

The International Dyslexia Association (IDA) indicates that instruction using a structured literacy approach is the most effective instructional methodology for students with dyslexia, as well as other reading disabilities.

Evidence tells us that as long as programs include the essential components of Structured Literacy and are implemented by well-trained teachers with sufficient intensity and for the necessary duration, they are all effective.[40] Structured Literacy™ is an explicit, systematic, comprehensive, and cumulative program supported by research. It integrates listening, speaking, reading, and writing.[41] Structured Literacy helps build and strengthen neurological pathways through instruction in all the elements necessary for proficient reading and writing.

37 READ Podcast. (July 6, 2022). What every educator and family should know about reading with Carolyn Strom, PhD. Episode 34, Transcript. Retrieved from

38 Miciak, J. & Fletcher, J. (2020). The Critical Role of Instructional Response for Identifying Dyslexia and Other Learning Disabilities. Journal of Learning Disabilities. Vol. 53 (5) 343-353.

39 Miciak, J. & Fletcher, J. (2020). The Critical Role of Instructional Response for Identifying Dyslexia and Other Learning Disabilities. Journal of Learning Disabilities. Vol. 53 (5) 343-353.

40 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.

41 International Dyslexia Association (2017) Effective Reading Instruction. **https://dyslexiaida.org/effective-reading-instruction/**.

What Are The Elements Of Structured Literacy?

Phonology - The study of sound structure of spoken words. Phonemic awareness, the ability to distinguish, segment, blend, and manipulate sounds, is central to phonology.

Sound-Symbol Association - Once students develop phonemic awareness, they must learn the alphabetic principles – how to map phonemes to letters (graphemes) and vice versa.

Syllable - 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. Structured Literacy instruction includes a focus on the comprehension and appreciation of written language.

What Are The Essential Principles Of Structured Literacy?

Explicit

"Explicit instruction is the direct teaching of concepts with continuous teacher-student interaction and does not assume students deduce concepts."[42] It is characterized by a series of supports or scaffolds, whereby students are guided through the learning process with clear statements about the purpose and rationale for learning a new skill, clear expectations and demonstrations of the instructional target, and supported practice with feedback until independent mastery has been achieved.[43]

Consistent and clear use of the Gradual Release Model[44] is an essential component of explicit instruction. The teacher will first model the skill and clarify the decision-making processes needed to complete a task or procedure by thinking aloud as they perform the skill and clearly demonstrate to students a model of proficient performance (I do). Next, the teacher will provide multiple teacher-guided practice opportunities during the lesson with appropriate scaffolding to enable success and build competence (we do). If and when students demonstrate greater success, teacher guidance is decreased so students complete tasks independently (you do).[45]

Systematic

Systematic instruction is focused on how the instruction is designed and based on a logical scope and sequence with content that is grade-level appropriate. Concepts should begin at a basic level and progress to more advanced concepts that build upon previously learned skills. Teacher models and instructions clearly outline routines and procedures that increase the number of student responses and practice.

42 International Dyslexia Association (2016). What is Structured Literacy? https://dyslexiaida.org/what-is-structured-literacy/
43 Archer, A. and Hughes,C. (2011). Explicit Instruction: Effective and Efficient Teaching. NY: Guilford Press.
44 Fisher, D., & Frey, N. (2008). Better learning through structured teaching: A framework for the gradual release of responsibility. Alexandria, VA: Association for Supervision and Curriculum Development.
45 Archer, A. and Hughes,C. (2011). Explicit Instruction: Effective and Efficient Teaching. NY: Guilford Press

Comprehensive
Comprehensive instruction covers all the essential components: phonological awareness, phonics, decoding, and fluency. Students incorporate these various subskills strategically to comprehend what is being read. As the subskills of word reading become automatic for students to read and spell, this frees up cognitive space in students' brains to develop the comprehension strategies skilled readers use to understand complex texts. These skills develop on a continuum depending on age, grade level, and the content being presented.

Cumulative
Cumulative instruction circles back around and incorporates previously learned concepts into instruction along with new concepts being learned. There is a daily review of sounds, letters, spellings, syllable patterns, and morphemes previously taught so that students' mastery stays consistent over time while new content is learned.

Intensive
Intensive instruction[46] provides opportunities for students to be constantly engaged during instruction. Throughout this type of instruction, there is a high level of interaction between teachers and students. Maintaining an active pace and requiring frequent student responses to ensure there is a high level of student-teacher interaction can increase the intensity of instruction.[47]

Small group instruction is another way to increase the intensity of instruction. Small group instruction allows the teacher to move at the student's pace and provide the level of instruction required for mastery of a concept. This also allows teachers to provide immediate corrective feedback which is necessary for students with dyslexia.

How Do I Know What Skills To Teach To Students With Dyslexia In Intervention?

Diagnostic assessments can guide teachers to identify essential literacy skills that a student has not yet mastered. To fill in achievement gaps, students with dyslexia will need more explicit, targeted intervention in skills identified in diagnostic assessment results. Students identified with dyslexia may need more intensive intervention than their neurotypical peers. Instruction can be done in the classroom during whole and small group instruction or as part of additional intervention instruction outside of the classroom.

Which Reading Program Do I Use For Intervention?

Which reading program is used is less important than the provision of systematic, explicit instruction in phonemic awareness, phonics, and applying that knowledge to reading and writing.[48] "Evidence tells us that as long as programs include the essential components of Structured Literacy and are implemented by well-trained teachers with sufficient intensity and for the necessary duration, they are all effective."[49]

Contact your building leadership to know which structured literacy intervention programs are used in your district.

46 Hasbrouck, J. (2020) Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.
47 Hasbrouck, J. (2020) Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.
48 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.
49 Shaywitz, S. M.D. (2003). Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level. Pp. 122-124. Knopf, New York.

Progress Monitoring

All instructional plans implemented with students must be consistently monitored to determine if instruction positively impacts student learning and if there is evidence of growth in essential literacy skills. Regular progress monitoring assessments should be given to students and the results analyzed to inform teachers and families about the effectiveness of intervention instruction. Like diagnostic assessments, progress monitoring assessments are differentiated and primarily used with students receiving supplemental instruction or intervention.[50] Immediate, corrective feedback is essential for academic growth and to help ameliorate specific reading difficulties.

Accommodations for Students with Dyslexia

The following lists are recommended strategies and suggested material accommodations for classrooms given by the International Dyslexia Association.

Suggested strategies:

- Use explicit teaching procedures
- Repeat directions
- Maintain daily routines
- Provide a copy of lesson notes
- Provide students with a graphic organizer
- Use step-by-step instruction
- Simultaneously combine verbal and visual information
- Write key points or words on the chalkboard/whiteboard
- Use balanced presentations and activities
- Use mnemonic instruction
- Emphasize daily review

Suggested material accommodations:

- Clarify or simplify written directions
- Present a small amount of work
- Block out extraneous stimuli
- Highlight essential information
- Use a placeholder in consumable material

- Provide additional practice activities
- Provide a glossary in content areas
- Develop reading guides
- Use an audio recording device
- Use of assistive technology

For more information on accommodations for students with dyslexia go **here**.

50 Hasbrouck, J. (2020) Conquering Dyslexia: A Guide to Early Detection and Prevention for Teachers and Families. Benchmark Education Company.

Appendices

Wyoming Laws

Wyoming State Law, Act 28 - https://www.wyoleg.gov/Legislation/2022/SF0032
Wyoming Administrative Rules, Chapter 56 - https://rules.wyo.gov/Search.aspx?mode=1

Associated Terms

All following definitions are from the Wyoming Department of Education Agency Rules Chapter 56: K-3 Reading Assessment and Intervention.

Diagnostic Assessment - refers to a tool administered to an individual student in order to determine strengths and pinpoint specific areas of need in order to guide instruction or intervention.

Evidence Based - practices refer to assessment, instruction, and intervention practices that have been tested and described through rigorously designed, peer reviewed research studies using quantitative and qualitative approaches, have been rigorously studied over time through multiple opportunities and contexts, and have been shown to have a positive effect on student achievement.

Foundational Reading Skills - include skills needed in order to be proficient and automatic in word recognition including phonological awareness, decoding, and sight recognition.

Language Comprehension - includes elements to support the comprehension of oral or written words including background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge.

Oral Reading Fluency - refers to the ability to read text accurately, with sufficient, automaticity, prosody, and accuracy. Fluent and automatic reading is essential because it permits the reader to focus on constructing meaning from the text rather than on decoding words.

Phonemic Awareness - refers to the conscious awareness of individual speech sounds (consonants and vowels) in spoken syllables and the ability to consciously manipulate those sounds including isolating, blending, segmenting, adding, deleting, and substituting the smallest units of sound in spoken words.

Phonological Awareness - is the conscious awareness of (including phonemic awareness) and ability to manipulate all levels of the speech sound system, including recognizing and producing rhymes, word boundaries, stress patterns, syllables, onset-rime units, and phonemes as well as whole words within sentences.

Phonics - is the study of the relationships between letters and the sounds they represent; phonics also may be used as a descriptor of code-based instruction.

Progress Monitoring - is the use of reliable and valid measures to systematically and regularly assess a student's performance over time to measure responsiveness to reading instruction or intervention.

Additional Websites

You may find more information on supporting students with dyslexia at the following websites.

International Dyslexia Association (IDA) Knowledge and Practice Standards for Teachers of Reading - **https://dyslexiaida.org/knowledge-and-practices/**

Individuals with Disabilities Education Act - **https://sites.ed.gov/idea/**

U.S. Department of Education Laws and Guidance - **https://www2.ed.gov/policy/landing.jhtml?src=pn**

Structured Literacy Links:

Why Schools Should Use Structured Literacy?
- **https://dyslexiaida.org/heres-why-schools-should-use-structured-literacy/**

Structured Literacy
- **https://dyslexiaida.org/structuredliteracy/**

Building Phoneme Awareness
- **https://dyslexiaida.org/building-phoneme-awareness-know-what-matters/**

Dyslexia Links:

Why is it so Difficult to Diagnose Dyslexia?
- **https://dyslexiaida.org/why-is-it-so-difficult-to-diagnose-dyslexia-and-how-can-we-do-it-better/**

What does the Science Say? - **https://dyslexiaida.org/compensatory-skills-and-dyslexia-what-does-the-science-say/**

How to Counter Vision Based Claims about Dyslexia Cures? - **https://dyslexiaida.org/how-to-counter-vision-based-claims-about-dyslexia-cures/**

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Gough, P. and Tunmer, W. (1986). Decoding, reading, and reading disability. Remedial and Special Education., 7, 6-10.

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