I. Definitions and Characteristics of Dyslexia

The student who struggles with reading and spelling often puzzles teachers and parents. The student displays ability to learn in the absence of print and receives the same classroom instruction that benefits most children; however, the student continues to struggle with some or all of the many facets of reading and spelling. This student may be a student with dyslexia.

Texas Education Code (TEC) §38.003 defines dyslexia in the following way:

(1) “Dyslexia” means a disorder of constitutional origin manifested by a difficulty in learning to read, write, or spell, despite conventional instruction, adequate intelligence, and sociocultural opportunity.

(2) “Related disorders” include disorders similar to or related to dyslexia such as developmental auditory imperceptions, dysphasia, specific developmental dyslexia, developmental dysgraphia, and developmental spelling disability.

http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.38.htm#38.003

The International Dyslexia Association defines “dyslexia” in the following way:

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. 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.

(Adopted by the International Dyslexia Association Board of Directors, November 12, 2002)

Students identified as having dyslexia typically experience primary difficulties in phonological awareness, including phonemic awareness and manipulation, single-word reading, reading fluency, and spelling. Consequences may include difficulties in reading comprehension and/or written expression. These difficulties in phonological awareness are unexpected for the student’s age and educational level and are not primarily the result of language difference factors. Additionally, there is often a family history of similar difficulties.

The following are the primary reading/spelling characteristics of dyslexia:

- Difficulty reading words in isolation
- Difficulty accurately decoding unfamiliar words
- Difficulty with oral reading (slow, inaccurate, or labored)
- Difficulty spelling

It is important to note that individuals demonstrate differences in degree of impairment.

The reading/spelling characteristics are most often associated with the following:

- Segmenting, blending, and manipulating sounds in words (phonemic awareness)
- Learning the names of letters and their associated sounds
• Holding information about sounds and words in memory (phonological memory)
• Rapidly recalling the names of familiar objects, colors, or letters of the alphabet (rapid naming)

Consequences of dyslexia may include the following:
• Variable difficulty with aspects of reading comprehension
• Variable difficulty with aspects of written language
• Limited vocabulary growth due to reduced reading experiences

Sources for Characteristics and Consequences of Dyslexia


Connecting Research and Practice

New research in understanding dyslexia as a neurodevelopmental disorder is ongoing. Future research will assist in learning more about the phonological awareness deficit and how this deficit interacts with other risk factors related to dyslexia. Research also is now focusing on the developmental cause of neural abnormalities and how these predict treatment response.


Common Risk Factors Associated with Dyslexia

If the following behaviors are unexpected for an individual’s age, educational level, or cognitive abilities, they may be risk factors associated with dyslexia. A student with dyslexia usually exhibits several of these behaviors that persist over time and interfere with his/her learning. A family history of dyslexia may be present; in fact, recent studies reveal that the whole spectrum of reading disabilities is strongly determined by genetic predispositions (inherited aptitudes) (Olson, Keenan, Byrne, & Samuelsson, 2014).

Preschool
• Delay in learning to talk
• Difficulty with rhyming
• Difficulty pronouncing words (e.g., “pusgetti” for “spaghetti,” “mawn lower” for “lawn mower”)
• Poor auditory memory for nursery rhymes and chants
• Difficulty in adding new vocabulary words
• Inability to recall the right word (word retrieval)
• Trouble learning and naming letters and numbers and remembering the letters in his/her name
• Aversion to print (e.g., doesn’t enjoy following along if book is read aloud)

Kindergarten and First Grade

• Difficulty breaking words into smaller parts (syllables) (e.g., “baseball” can be pulled apart into “base” “ball” or “napkin” can be pulled apart into “nap” “kin”)
• Difficulty identifying and manipulating sounds in syllables (e.g., “man” sounded out as /m/ /a/ /n/)
• Difficulty remembering the names of letters and recalling their corresponding sounds
• Difficulty decoding single words (reading single words in isolation)
• Difficulty spelling words the way they sound (phonetically) or remembering letter sequences in very common words seen often in print (e.g., “sed” for “said”)

Second Grade and Third Grade

Many of the previously described behaviors remain problematic along with the following:

• Difficulty recognizing common sight words (e.g., “to,” “said,” “been”)
• Difficulty decoding single words
• Difficulty recalling the correct sounds for letters and letter patterns in reading
• Difficulty connecting speech sounds with appropriate letter or letter combinations and omitting letters in words for spelling (e.g., “after” spelled “eftr”)
• Difficulty reading fluently (e.g., slow, inaccurate, and/or without expression)
• Difficulty decoding unfamiliar words in sentences using knowledge of phonics
• Reliance on picture clues, story theme, or guessing at words
• Difficulty with written expression

Fourth Grade through Sixth Grade

Many of the previously described behaviors remain problematic along with the following:

• Difficulty reading aloud (e.g., fear of reading aloud in front of classmates)
• Avoidance of reading (e.g., particularly for pleasure)
• Acquisition of less vocabulary due to reduced independent reading
• Use of less complicated words in writing that are easier to spell than more appropriate words (e.g., “big” instead of “enormous”)
• Reliance on listening rather than reading for comprehension

Middle School and High School

Many of the previously described behaviors remain problematic along with the following:

• Difficulty with the volume of reading and written work
• Frustration with the amount of time required and energy expended for reading
• Difficulty with written assignments
• Tendency to avoid reading (particularly for pleasure)
• Difficulty learning a foreign language
Postsecondary

Some students will not be identified prior to entering college as having dyslexia. The early years of reading difficulties evolve into slow, labored reading fluency. Many students will experience extreme frustration and fatigue due to the increasing demands of reading as the result of dyslexia. In making a diagnosis for dyslexia, a student’s reading history, familial/genetic predisposition, and assessment history are critical. Many of the previously described behaviors may remain problematic along with the following:

- Difficulty pronouncing names of people and places or parts of words
- Difficulty remembering names of people and places
- Difficulty with word retrieval
- Difficulty with spoken vocabulary
- Difficulty completing the reading demands for multiple course requirements
- Difficulty with note-taking
- Difficulty with written production
- Difficulty remembering sequences (e.g., mathematical and/or scientific formulas)

Appendix G: Students with Disabilities Preparing for Postsecondary Education: Know Your Rights and Responsibilities has been included for additional information.

Since dyslexia is a neurological, language-based disability that persists over time and interferes with an individual’s learning, it is critical that identification and intervention occur as early as possible.

Associated Academic Difficulties and Other Conditions

The behaviors in the previous sections represent common difficulties that students with dyslexia may exhibit. In addition, students with dyslexia may have problems in written expression, reading comprehension, and mathematics, as well as other complicating conditions and/or behaviors.

Besides academic struggles, some students with dyslexia may exhibit other complex conditions and/or behaviors. The most common co-occurring disorders with dyslexia are attention deficit hyperactivity disorder (ADHD) and specific developmental language disorders (Snowling & Stackhouse, 2006, pp. 8–9). Some, though not all, students with dyslexia may also experience symptoms such as anxiety, anger, depression, lack of motivation, or low self-esteem. In such instances, appropriate instructional/referral services need to be provided.

These additional conditions can have a significant impact on the effectiveness of instruction provided to students with dyslexia. Motivation, in particular, has been shown to be critical to the success or failure of instructional practices. In regard to motivation, Torgesen states (as cited in Sedita, 2011), “Even technically sound instructional techniques are unlikely to succeed unless we can ensure that, most of the time, students are engaged and motivated to understand what they read” (p. 532). Therefore, all the factors that may affect learning must be considered when identifying and providing instruction for students with dyslexia. ADHD or symptoms of anxiety, anger, depression, or low self-esteem may lower a student’s motivation and engagement in learning. Educators are responsible for providing an environment of affirmation that motivates and engages the student with dyslexia and complicating conditions.
Sources for Common Characteristics and Risk Factors of Dyslexia


Sources for Associated Academic Difficulties and Other Conditions


