

Clinical Types of Dyslexia

Developed at West Texas A&M University's Center for Learning Disabilities

Subtype 1 Dysphonic Dyslexia

Difficulty sounding out words in a phonological manner.

Characteristics

Unable to bridge letters and sounds (phonics)
Overreliance on visual and orthographic cues to identify words in print
Tend to guess frequently on words based on the initial letter observed
Tend to memorize whole words as an approach to reading
Often are inaccurate oral readers

Interventions

- Teach metacognitive strategies. Teach children similarities and differences between speech sounds and visual patterns across words.
- Provide direct instruction in language analysis and the alphabetic code. Give explicit instruction in segmenting and blending speech sounds.
- Teach children to process progressively larger chunks of words.
- Use techniques that make phonemes more concrete. For example, phonemes and syllables can be represented with blocks where children can be taught how to add, omit, substitute, and rearrange phonemes in words.

Subtype 2 Surface Dyslexia

Difficulty with the rapid and automatic recognition of words in print. (Opposite of Dysphonic Dyslexia)

Characteristics

Children are readily able to sound out words
Lack the ability to recognize words in print automatically
Letter-by-letter and sound-by-sound readers
Read very slowly and laboriously
Phonological processing skills remain intact.
Difficulty recognizing word pairs having similar orthography but different phonology

Interventions

Focus on automaticity and fluency goals

Subtype 3
Mixed Dyslexia

Multiple reading deficits characterized by impaired phonological and orthographic processing skills. The most severe form of dyslexia.

Characteristics

Most severe type of reading disability
Characterized by a combination of poor phonological skills
Slower rapid and automatic word recognition
Inconsistent language comprehension skills
Bizarre error pattern in reading
Deficits integrating both the phonological representation and orthographical representation of words

Interventions

Focus on a Balanced Literacy approach that targets multiple aspects of the reading process
Modeled Reading/Writing
Shared Reading/Writing
Interactive Reading/Writing
Guided Reading/Writing
Independent Reading/Writing

Subtype 4
Comprehension Deficits

The mechanical side of reading is fine but difficulty persists deriving meaning from print.

Characteristics

Readers struggle to derive meaning from print
Often display good reading mechanics.

Interventions

Language Development
Utilize skills that draw on background knowledge
Draw inferences from the text

Flanagan, D. & Alfonso, V. (2011). The essentials of specific learning disability identification. Hoboken, N.J.: John Wiley & Sons.

Types of Dyslexia

Did you know that psychologists even categorize subtypes of Dyslexia. Dyslexia is now understood to be seen as a heterogeneous, specific, reading dysfunction, with each type having its own distinct coding pattern. A brief description of these types of Dyslexia follows:

- **Dysnemkinesia:** (Motor) Reversal problems in writing and printing. This literally means “poor memory of motor movements and this type involves number and letter reversals. It involves the frontal lobe, left hemisphere for right handed and right hemisphere for left handed. This Dyslexia is much less frequent than either Dyseidesia or Dysphonesia. The majority of Dyslexic individuals do not have a problem with letter reversals. Scholastic handicapping is relatively insignificant in students with this condition compared with those with Dysphonesia or Dyseidesia. This Dyslexia is easily cured in most cases. Dysgraphia, difficulty with writing, and Dyspraxia, difficulty with motor skills, are names synonymous with Dysnemkinesia.
- **Dysphonesia:** (Auditory) This Dyslexic has lots of trouble with phonics in reading (decoding) and spelling (encoding) of words. It is also called Phonological, Dysphonetic or Auditory Dyslexia. In Dysphonesia, students are able to spell words by sight but they are poor at phonetic spelling of words. Students should use the Orton-Gillingham method which is a multisensory approach involving integration of the visual, auditory, tactile, and kinesthetic senses in a specialized structured program.
- **Dyseidesia:** (Visual) Sight word problems in reading (decoding) and spelling (encoding) of words. This type of Dyslexia is very genetic. Students slowly sound out words, but they have learned to read mostly by sight and they struggle with irregular words (said, who, any). They spell phonetically. This Dyslexia occurs in the left hemisphere for right-handed persons and some left-handed persons have linguistic functions in the right hemisphere of the brain. They rely heavily on time-consuming word-attack skills to decode words so their reading is slow and laborious. Phonetic decoding of unfamiliar or unknown words is poor; the dysphonetic individual has difficulty syllabating, sounding out, and blending the sounds to decode the word. Word substitutions, such as home for house, are common. Students with this type of Dyslexia learn to read and spell the best by the sight word approach, also called the look/say method. An Orton-Gillingham method is suggested for this type of Dyslexia, too. Other names for this Dyslexia are Surface Dyslexia or Visual Dyslexia.
- **Dysphoneidesia:** A combination of 2+3; this is also called Mixed Dyslexia. This is a combination of phonological and visual Dyslexia. These students have severe deficits in reading as well as visual motor integration and working memory.
- **Dysnemkinphonesia:** A combination of 1+2;
- **Dysnemkineidesia:** A combination of 1+3

- **Dysnephonia:** A combination of 1+2+3
- **Dysnomia:** This is also named Semantic Dyslexia or Naming-Speed Dyslexia. The student has trouble recalling the correct word so they like to say “the thingy” when they cannot retrieve the word quickly.
- **Double Deficit:** This is when a student has both Dysphonia or Phonological Dyslexia and Dysnomia.
- **Dyscalculia-** this means difficulty with Math.

Taken from: Prescription for Success, a center for learning in Parker, CO

Successful treatment of sublexical reading deficits in a child with dyslexia of the mixed type

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“Cognitive neuropsychological dual-route models (see Figure 1) propose that skilled readers use two main procedures for converting print into speech. The lexical reading procedure relies on whole-word recognition and allows successful and efficient processing of words that are familiar to the reader. The sublexical reading procedure involves rule-based grapheme-to-phoneme conversion and allows the skilled reader to “sound-out” unfamiliar words and nonwords. Competent reading requires fluency in both procedures and impaired functioning in one leads to an over-reliance on the other (Coltheart, 1985).

Surface dyslexia, according to the dual route model of reading, arises from damage to one or more components of the lexical processing route and has been documented in both acquired and developmental cases (Broom & Doctor, 1995a; Castles & Coltheart, 1993; Coltheart, Bates, & Castles, 1994; Coltheart & Byng, 1989; Coltheart et al., 1983; Goulandris & Snowling, 1991; Seymour & MacGregor, 1984; Temple, 1984). Lexical reading is proposed to involve access to an orthographic input lexicon, an internal store of orthographic representations of familiar words. Once recognised, the words' associated meanings are then retrieved from the semantic system and finally the words' pronunciations are retrieved from the phonological output lexicon. Surface dyslexia is characterised by an impairment of irregular word reading relative to regular and nonword reading (Coltheart, 1985).” P200-201