

Reading Disability in Youth

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Dyslexia

- 7-10% of the population is affected by dyslexia.

Common signs and symptoms of dyslexia

- Unexpected failure in learning to read.
- Letter and number reversals past 7 or 8yrs.
- Difficulty copying text from the board or a book.
- Difficulty remembering everything he or she hears, especially multi-step instructions.
- Have normal intelligence, but struggle to say what they think.
- Difficulty understanding the individual sounds in words.
- Difficulty remembering words.

Common signs and symptoms of dyslexia

- Spoken language difficulties, but good language comprehension.
- Not seeing or acknowledging punctuation in written text.
- Difficulty reading different styles of type.
- Omission of words while reading.
- Difficulty writing.
- Confusion about directions in space or time.
- Difficulty telling time.
- Gap between perceived potential and performance in school.

Diagnosing Dyslexia

- Measure strengths and weaknesses in oral language, reading, spelling and writing through standardized tests or non-standardized assessments.
- Common tests:
 - Wechsler Intelligence Scale for Children – Third Edition (WISC-III)
 - Kaufman Assessment Battery for Children (KABC)
 - Kaufman Test of Educational Achievement (KTEA)
 - Woodcock-Johnson Psychoeducational Battery
 - Peabody Individual Achievement Test (PIAT)
 - Wechsler Individual Achievement Test (WIAT)

Phonics

- Reading and spelling problems affect all academic domains.
- Strong evidence of link b/w reading disabilities and externalizing disorders, generalized anxiety and school-related anxiety.
- Phonics instruction is the only approach with statistically confirmed effectiveness in youth with reading disabilities.

Phonics

- What is phonics instruction?
 - Combines elements of reading fluency training and phonemic awareness training.
- Reading fluency training
 - Repeated word or text reading practice
- Phonemic awareness training

Phonemic Awareness

Phonemic Awareness (PA) is:

1. the ability to hear and manipulate the sounds in spoken words and the understanding that spoken words and syllables are made up of sequences of speech sounds (Yopp, 1992; see [References](#)).
 2. essential to learning to read in an alphabetic writing system, because letters represent sounds or phonemes. Without phonemic awareness, phonics makes little sense.
 3. fundamental to mapping speech to print. If a child cannot hear that "man" and "moon" begin with the same sound or cannot blend the sounds /rrrrrruuuuunnnnn/ into the word "run", he or she may have great difficulty connecting sounds with their written symbols or blending sounds to make a word.
 4. essential to learning to read in an alphabetic writing system.
 5. a strong predictor of children who experience early reading success.
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An important distinction:

- Phonemic awareness is **NOT phonics**.
 - Phonemic awareness is **AUDITORY** and **does not involve words in print**.
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Phonemic Awareness

Phonemic Awareness is important ...

- It requires readers to notice how letters represent sounds. It primes readers for print.
 - It gives readers a way to approach sounding out and reading new words.
 - It helps readers understand the alphabetic principle (that the letters in words are systematically represented by sounds).
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...but difficult:

- Although there are 26 letters in the English language, there are approximately 40 phonemes, or sound units, in the English language. (NOTE: the number of phonemes varies across sources.)
- Sounds are represented in 250 different spellings (e.g., /f/ as in ph, f, gh, ff).
- The sound units (phonemes) are not inherently obvious and must be taught. The sounds that make up words are "coarticulated;" that is, they are not distinctly separate from each other.

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Phonemic Awareness

Definitions of key PA terminology:

- **Phoneme:** A phoneme is a speech sound. It is the smallest unit of language and has no inherent meaning.
- **Phonemic Awareness:** The ability to hear and manipulate the sounds in spoken words, and the understanding that spoken words and syllables are made up of sequences of speech sounds (Yopp, 1992; see [References](#)). Phonemic awareness involves hearing language at the phoneme level.
- **Phonics:** use of the code (sound-symbol relationships to recognize words).
- **Phonological Awareness:** The ability to hear and manipulate the sound structure of language. This is an encompassing term that involves working with the sounds of language at the word, syllable, and phoneme level.
- **Continuous Sound:** A sound that can be prolonged (stretched out) without distortion (e.g., r, s, a, m).
- **Onset-Rime:** The onset is the part of the word before the vowel; not all words have onsets. The rime is the part of the word including the vowel and what follows it.
- **Segmentation:** The separation of words into phonemes.

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Phonemic Awareness

Examples of Phonemes

The word "sun" has three phonemes: /s/ /u/ /n/. The table below shows different linguistic units from largest (sentence) to smallest (phoneme).

Sentence	The sun shone brightly.
Word	sun
Syllable	sun, sun-shine, sun-ny
Onset-Rime	s-un, s-unshine, s-unny
Phoneme	s-u-n

The word "shut" also has three phonemes: /sh/ /u/ /t/.

Examples of Phonemic Awareness Skills

- Blending: What word am I trying to say? Mmmmm...ooooo...p.
- Segmentation (first sound isolation): What is the first sound in mop? /m/
- Segmentation (last sound isolation): What is the last sound in mop? /p/
- Segmentation (complete): What are all the sounds you hear in mop? /m/ /o/ /p/

Phonemic Awareness

What Does the Lack of Phonemic Awareness Look Like?

Children lacking phonemic awareness skills cannot:

- group words with similar and dissimilar sounds (**mat**, **mug**, **sun**)
- blend and split syllables (**f oot**)
- blend sounds into words (**m_a_n**)
- segment a word as a sequence of sounds (e.g., **fish** is made up of three phonemes, /f/ , /i/, /sh/)
- detect and manipulate sounds within words (change **r** in run to **s**).

(Kame'enui, et. al., 1997; see [References](#))

Interventions that Include Phonics Instruction

- Orton-Gillingham
- Wilson Reading System
- Lindamood Bell
- Lexia-Herman Method
- Language! The Comprehensive Literacy Curriculum

Orton Gillingham

Orton–Gillingham Approach

Unique Features

- Many programs based on this approach
- Created for dyslexics
- Training necessary

Vocabulary-Language

- Yes

Phonics

- Decoding Syllables
- Morpheme
- Irregular words
- Spelling

Phonemic Awareness

- Yes, recently added

Fluency

- Words
- Phonemes
- Connected text

Reading Comprehension

- Vocabulary
- Text Comprehension
- Narrative text
- Expository text

Written Expression

- Sentence level
- Narrative and Expository