

Dyslexia: Early Signs, Diagnosis, and Multi-Sensory Structured Literacy Instruction



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Dyslexia Defined

— “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.”

Adopted by the IDA Board of Directors, Nov. 12, 2002. Many state education codes, including New Jersey, Ohio and Utah, have adopted this definition. Learn more about how consensus was reached on this definition: [Definition Consensus Project](#).



Reading Abilities

Students need a variety of abilities in order to become successful readers.

- Decoding Accuracy
- Word Identification
- Word Identification Automaticity
- Fluency
- Reading Comprehension



Cognitive Skills and Knowledge

These underlying skills and knowledge directly relate to success in reading abilities.

- Phonological and Phonemic Awareness
- Phonological Memory
- Sound/Symbol Correspondence
- Rapid Visual Verbal Responding
- Orthographic Memory
- Oral Comprehension



Early Warning Signs and Underlying Causes

'My child knows all of his letters, but has trouble remembering the sounds that go with them.' **-Weakness in sound/symbol correspondence**

'My child knows the sounds and can say the sounds of a word, but then can't figure out the word.' **-Weakness in beginning blending**



Early Warning Signs and Underlying Causes

'When we look at books, I can show my child a sight word that appears on every page and everytime she sees it she doesn't recognize it as the same word.'

-Weakness in orthographic memory

'My child knows all of the letters, but when we work on flashcards it takes a few seconds for him say the letter name.'

-Weakness in rapid automatic naming



Early Warning Signs and Underlying Causes

'My child seems to memorize a lot of words, but when I show her new words she can't sound them out or figure them out.'

-Phonological coding deficits

'My child can read the words, but reads them so slowly sounding out each word, that by the time he is at the end of the sentence he doesn't know what he read.'

| | | | |
|-----|-----|-----|-----|
| gub | yuc | kin | wed |
| qif | lok | rev | ken |
| roz | sut | dob | rap |

-Weakness in word identification automaticity



Early Warning Signs and Underlying Causes

'My child reads at a good rate, but it is word by word and she doesn't seem to know where to break up the phrases.'

-Weakness in oral reading fluency

'My child can't seem to get the words that he wants to say out of his mouth. He knows what he wants to say, but can't remember the words.'

-Phonological coding deficit



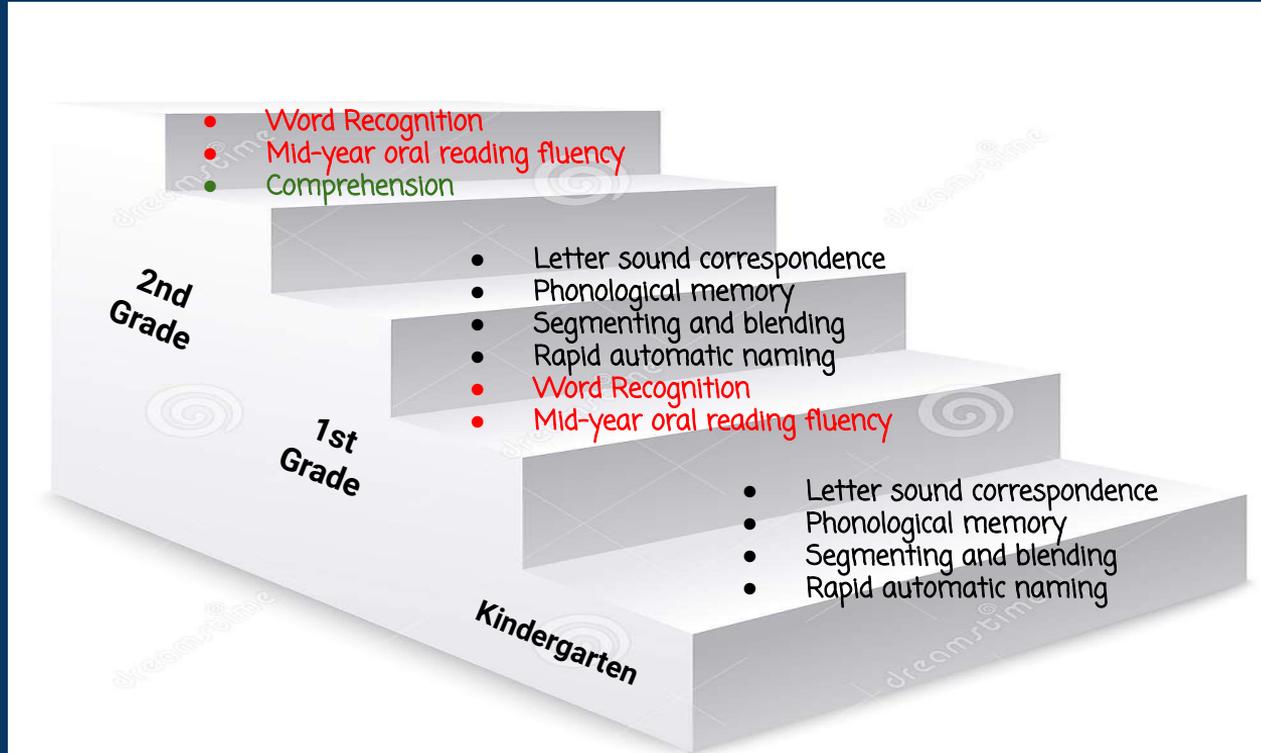
Early Warning Signs and Underlying Causes

'My child has beautiful reading. He reads with fluency, prosody and intonation, but he can never tell me about what he read.'

-Weakness in reading comprehension



Reading Screenings and Progression



Identification and Intervention

Tier 1: General Education Classroom Setting

-Screening

-Identification of weaknesses

-Shift to Tier 2



Identification and Intervention

Tier 2: Student receives a small group intervention

-Progress monitoring determines adequate or inadequate progress

-If progress is not being made - full battery assessment



Identification and Intervention

Tier 3: Student receives intervention services under an IEP umbrella

-Intervention determined by confirmed areas of weakness

-Progress monitoring determines progress



1:1 or small
group
Instruction



Questions to Ask When Receiving an Intervention

- Does the intervention address my child's specific areas of weakness?
- Is the intervention research based?
- Can I see the progress monitoring that is being implemented to determine progress?



What about retention?

"Often it is thought that the "gift" of another year in the same grade will give the child reinforcing instruction as well as provide another year for the development of grade level educational skills. However, educational research fails to support grade retention as an effective intervention. In fact, grade retention has been associated with a host of negative outcomes on a variety of levels. Of particular concern is whether educators are addressing the academic, behavioral and mental health needs of children when recommending grade retention."

Anderson, G.E. (2002). Grade Retention: Achievement and Mental Health Outcomes. *National Association of School Psychologists*, 1, 5-10



What about retention?

"When weighing the pros and cons of a decision to retain or promote a student, it is critical to emphasize to educators and parents that a century of research has failed to demonstrate the benefits of grade retention over promotion to the next grade for any group of students. Instead, we must focus on implementing evidence-based prevention and intervention strategies to promote social and cognitive competence and facilitate the academic success of all students."

Anderson, G.E. (2002). Grade Retention: Achievement and Mental Health Outcomes. *National Association of School Psychologists*, 1, 5-10



The Matthew Effect



Multi-Sensory Structured Literacy Instruction

A generic term for instruction under optimal conditions:

- Direct instruction in phonemic and phonological awareness, letter/sound instruction, word patterns, and spelling instruction that is **mastery based**.
- Opportunities for repeated reading, wide reading and repetition and practice at the word and sentence level that is **mastery based**.
- Development of knowledge through exposure to rich oral language and listening comprehension, direct vocabulary and syntax instruction, comprehensive reading instruction with literature and informational text.



Multi-Sensory Structured Literacy Instruction

- All learning should be active through:
 - The use of kinesthetic motor movements
 - Oral response
 - Visual aids
 - Auditory prompts
 - Tactile learning



Multi-Sensory Structured Literacy Instruction

- All reading instruction should include the following components:
 - Phonology/phonological awareness - the study of phonemes
 - Sound symbol associations/phonics
 - Syllable instruction
 - Morphology - the study of morphemes or word elements
 - Orthography - the study of the rules that govern the language
 - Syntax - understanding how words work at the sentence level
 - Semantics - the aspect of language concerned with meaning



Q & A

