Supporting Students with Dyslexia: Early Identification and Effective Intervention
Webinar Tips

- Close all programs & browsers to maximize bandwidth
- Exit & re-enter the webinar if you experience an audio or video lag
- Use the Questions feature for technical assistance (and to ask a question!)
- The recording, slide deck & certificate will be sent by email tomorrow
Meet Your Presenter

Dr. Jan Hasbrouck
Researcher, Educational Consultant and Author
What You Will Learn

• How dyslexia can be identified— even in very young children
• The reason why early identification and intervention are so important
• Instructional practices, including structured literacy, and content that address the challenges of dyslexia
• Resources to support children with dyslexia and their families
Conquering Dyslexia
A Guide to Early Detection and Intervention for Teachers and Families

- Ch. 1 What is Dyslexia?
- Ch. 2 What are the Signs to Look For?
- Ch. 3 Assessing Dyslexia
- Ch. 4 Teach Students to Read: How
- Ch. 5 Teach Students to Read: What
- Resources for Dyslexia
- Glossary & References
Conquering Dyslexia
A Guide to Early Detection and Intervention for Teachers and Families

Fletcher, Lyon, Fuchs, & Barnes (2019)
Learning Disabilities: From Identification to Intervention (2nd ed)
THE SUPPORT SUCCESS CIRCLE

- Families
- Teachers/Special Educators
- Speech & Language Pathologists
- Librarians/Media Specialists
- Reading Specialists
- Tutors
- School Psychologists/Counselors
- Medical Doctors
- Child & Adolescent Psychologists
- Researchers/Professors
What is Dyslexia?

- Type in chat:

What do you think about when you hear “dyslexia”? 
Dyslexia?

- Reversals b/d p/q
- Text moves on the page
- Reading backwards
- Eye or vision issues
- Boys more than girls
- Need to try harder
Dyslexia Research

**Medicine**
- Neuroanatomy
- Neurobiology
- Pediatrics
- Developmental cognitive neuroscience
- Ophthalmology & optometry

**Psychology & Education**
- Cognitive psychology
- Educational psychology
- Special education
- Developmental cognitive neuroscience
- Audiology & speech pathology
Magnetic Source Imaging

5 Year Olds Before Learning to Read
Dyslexia

• Not a visual/spatial issue

Blind children learn to read with relative ease;
Deaf children have tremendous difficulty learning to read.

The International Dyslexia Association
Dyslexia

• Not a visual/spatial issue **AUDITORY**!

• Varies in intensity and impact (mild to severe)

• Genetic

The International Dyslexia Association
Dyslexia

- Not a visual/spatial issue **AUDITORY!**
- Varies in intensity and impact (mild to severe)
- Genetic
- Can affect speaking fluency (processing, storing, accessing)
- Emotional consequences; confidence
Noah
18-year-old HS senior with dyslexia

One page from his daily journal in English class…
Today I was so emarst in English that I never went to go to class again. When you said you were going to pass out the paper, back out. I knew it was going to be bad. I can’t forget it.

But the last kid in the class always get my paper. She make fun of my spelling and calls my name out in front of the whole class. Then she keeps pointing out my misspelled words and all the kids around her laugh and look at me. This is not first time I have been in biggest in class. I hate pop corn reading and I just sit there and freak out and count listen to the story and then a kid calls on me and I have to say pass or just turn red in my face. I hate English and hate thinking about it. These finals don’t bother me and I hate doing them! I’m not go to be a writer as my job so there no point in it. Spelling and Read are my dislikes and I get no help to get even better in it. The school doesn’t help me and that why it hate my school and all the kid who laugh at me. School just Herts me.

“School Just Herts me.”
Dyslexia

- Not a visual/spatial issue **AUDITORY!**
- Varies in intensity and impact (mild to severe)
- Genetic
- Can affect speaking fluency (processing, storing, accessing)
- Emotional consequences; confidence
- Perhaps 15% of the population (?)

The International Dyslexia Association
The Ladder of Reading

5% Learning to read seems effortless

35%
Learning to read is relatively easy with broad instruction

40 to 50%
Learning to read proficiently requires code-based explicit, systematic, and sequential instruction

10 to 15% (Dyslexia)
Learning to read requires code-based explicit/systematic/sequential/diagnostic instruction with many repetitions

© N. Young, 2012 (Updated 2020)
Artwork by Dean Stanton
(Lyon, 1998; NRP, 2000; IDA, 2015; Hempenstall, 2016)

www.nancyyoung.ca

USED WITH PERMISSION
What is Dyslexia?

- Questions?
- Comments?
- Reactions?
Assessing Dyslexia

• A challenging topic…
Assessing Dyslexia

“...there is an understandable, urgent wish to diagnose [dyslexia] quickly and definitively. Unfortunately, such a measure does not exist.”
What is “Reading”? 

“Reading is a highly complex task that involves many interconnected and codependent linguistic processes that draw upon a variety of separate skills.”

Hasbrouck & Glaser (2019)
What is “Reading”? 

What is “Reading”?

“Reading is a highly complex task that involves many interconnected and codependent linguistic processes that draw upon a variety of separate skills.”

Hasbrouck & Glaser (2019)

“The Simple View of Reading”

RC = LC x D

Gough & Tunmer (1986)
The Simple View of Reading

RC = LC \times D

Reading Comprehension = Language Comprehension \times Decoding

Ability to understand spoken language

Ability to decode and recognize words
The Simple View of Reading


“The Simple View of Reading”
Scarborough’s Rope

Scarborough (2001)
Assessing Dyslexia

SPELLTalk listserve

Steve Dykstra, Ph.D.

“Early in learning there is no reason to separate dyslexic children from kids who struggle to read for other reasons. They all need the same thing…we should intervene effectively, robustly with all of them and not worry about who is or is not dyslexic”.

April 5, 2019
Assessing Dyslexia

“Early screening is so important for our students with dyslexia… it begins the process of quickly connecting students with the powerful interventions that can help them overcome dyslexia, or even prevent it from ever being a factor in their lives.”

dyslexia assessment  →  intervention
Assessing Dyslexia

Early signs parents can look for:

**Phonological Awareness**: the ability of the brain to notice, identify, and ultimately manipulate the units of oral language—whole words and word parts.

**Phonemic Awareness**: the ability to notice, identify and manipulate individual sounds (phonemes) in spoken words.
Assessing Dyslexia

Early signs parents can look for:

MAY have difficulty:

- Pronouncing words
- Learning the alphabet, letters
- Hearing and producing rhymes
- Noticing sound or letter patterns ("mommy" and "moon" start with /m/")
- Retrieving words when speaking
Assessing Dyslexia

- Phonological/Phoneme Awareness
- Word Identification: Phonics/Decoding
- Automatic Word Recognition (Sight Words)
- Reading Fluency (accuracy, rate, expression)
- Spelling
- Handwriting
- Language Proficiency
- Listening Comprehension
Assessing Dyslexia

Rapid Automatized Naming (RAN)?

“…the relation of rapid naming deficits and reading in individuals with dyslexia remains controversial.”

Fletcher, Lyon, Fuchs, & Barnes (2019, p. 118)

“The existing evidence does not support a persistent core deficit in naming speed for readers with dyslexia.”

Vukovic & Siegel (2006, p. 25)
Assessing Dyslexia

Dyslexia Diagnostic Checklist

“...there is no one, single, universally-adopted assessment that can be used to definitively identify if a study has dyslexia (Odegard, 2019). We instead rely on a ‘pattern’ or ‘cluster’ of concerns.” p. 93

dyslexia assessment → intervention
Assessing Dyslexia

<table>
<thead>
<tr>
<th>Concern? Y/N</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonological/Phoneme Awareness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonics/Decoding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic Word Recognition (Sight Words)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Fluency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spelling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handwriting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Proficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family History</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate Instruction/Intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© Conquering Dyslexia 2020 p. 92
## Assessing Dyslexia

<table>
<thead>
<tr>
<th>Concern? Y/N</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phonological/Phoneme Awareness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phonics/Decoding</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Automatic Word Recognition (Sight Words)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reading Fluency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Listening Comprehension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spelling</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Handwriting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Language Proficiency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Family History</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Appropriate Instruction/Intervention</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**“Emily”**

**Grade 2**

**Fall**
### Assessing Dyslexia

<table>
<thead>
<tr>
<th>Concern? Y/N</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonological/Phoneme Awareness</td>
<td>YES</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Phonics/Decoding</td>
<td>YES</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Automatic Word Recognition (Sight Words)</td>
<td>YES</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Reading Fluency</td>
<td>YES</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spelling</td>
<td>YES</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Handwriting</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Proficiency</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family History</td>
<td>YES</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Appropriate Instruction/Intervention</td>
<td>Has been provided</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**“Emily” Grade 2 Fall**

© Conquering Dyslexia 2020 p. 92
Children diagnosed with dyslexia benefit by receiving:

- a clear and understandable explanation of their diagnosis
- on-going family support
- appropriate intervention provided as early as possible

Livingston, Siegel, & Ribary (2018)
Share Diagnostic Results

Children diagnosed with dyslexia benefit by receiving:
• a clear and understandable explanation of their diagnosis
• on-going family support
• appropriate intervention provided as early as possible

Livingston, Siegel, & Ribary (2018)

dyslexia assessment → intervention
Assessing Dyslexia

- Questions?
- Comments?
- Reactions?
Teaching Students with Dyslexia

• How?
• What?
Teaching Students with Dyslexia

Tweet from Dr. Nadine Gaab @GaabLab
October 9, 2020 5:55 PM

Keep in mind that all children who struggle with learning to read need evidence-based interventions regardless of the cause of their struggle, their school's or parent's resources, their skin color, & whether they have a #dyslexia diagnosis or not. Our task is to make this happen.
Teaching Students with Dyslexia

Keep in mind that all children who struggle with learning to read need evidence-based interventions regardless of the cause of their struggle, their school's or parent's resources, their skin color, & whether they have a #dyslexia diagnosis or not. **Our task is to make this happen.**

How?
Research on Instruction & Intervention

**Medicine**
- Neuroanatomy
- Neurobiology
- Pediatrics
- Developmental cognitive neuroscience
- Ophthalmology & optometry

**Psychology & Education**
- Cognitive psychology
- Educational psychology
- Special education
- Developmental cognitive psychology
- Audiology & speech pathology
Research on Instruction & Intervention

Anita Archer
Mark Seidenberg
Louisa Moats
Jack Fletcher
David Kilpatrick
Carolyn Denton

Virginia Berninger
Tim Shanahan
Doug Carnine
Barbara Foorman
Maryanne Wolf
Sharon Vaughn

and more...
Research on Instruction & Intervention

“…reading is not learned in the same way we learn to talk.”

“[requires] building a new circuit linking the visual code to existing neural systems for language…”

Dr. Mark Seidenberg

Language at the Speed of Sight (2017)
Research on Instruction & Intervention

Some of our students will build these circuits more easily than others!
"Researchers now estimate that 95 percent of all children can be taught to read."

Dr. Louisa Moats (2020)
Research on Instruction & Intervention

With appropriate instruction & intervention almost all students can successfully climb the ladder!
Research on Instruction & Intervention: WHAT?

“How do children learn to read?... The answer is the same for all children.

Cultural, economic, and educational circumstances obviously affect children’s progress, but what they need to learn does not change.”

Dr. Mark Seidenberg

 Language at the Speed of Sight (2017)
Research on Instruction & Intervention: WHAT?

“How do children learn to read?... The answer is the same for all children.

Cultural, economic, and educational circumstances obviously affect children’s progress, but what they need to learn does not change.”

Dr. Mark Seidenberg
Language at the Speed of Sight (2017)
Research on Instruction & Intervention: WHAT?

- Phonological/Phoneme Awareness
- Word Identification: Phonics/Decoding
- Automatic Word Recognition (Sight Words)
- Reading Fluency (accuracy, rate, expression)
- Spelling
- Handwriting
- Language Proficiency
- Listening Comprehension
Research on Instruction & Intervention: HOW?

“The most ethical and prudent action is to provide all children with the most effective reading methods...thereby accelerating the process of all children and minimizing the likelihood that any child will struggle to learn to read.”

Buckingham & Castles (2019)

Structured Literacy p.101-112

*Comprehensive *Systematic *Explicit *Intensive *Multimodality

and informed by data...
Structured Literacy

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive</td>
<td></td>
</tr>
<tr>
<td>Systematic</td>
<td></td>
</tr>
<tr>
<td>Explicit</td>
<td></td>
</tr>
<tr>
<td>Intensive</td>
<td></td>
</tr>
<tr>
<td>Multimodality</td>
<td></td>
</tr>
</tbody>
</table>

and informed by data…
## Structured Literacy

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive</td>
<td>Designed to cover essential foundational components of reading + advanced skills &amp; knowledge</td>
</tr>
<tr>
<td>Systematic</td>
<td></td>
</tr>
<tr>
<td>Explicit</td>
<td></td>
</tr>
<tr>
<td>Intensive</td>
<td></td>
</tr>
<tr>
<td>Multimodality</td>
<td></td>
</tr>
</tbody>
</table>

and informed by data…
## Structured Literacy

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive</td>
<td>Designed to cover essential foundational components of reading + advanced skills &amp; knowledge</td>
</tr>
<tr>
<td>Systematic</td>
<td>Carefully designed scope &amp; sequence</td>
</tr>
<tr>
<td>Explicit</td>
<td></td>
</tr>
<tr>
<td>Intensive</td>
<td></td>
</tr>
<tr>
<td>Multimodality</td>
<td></td>
</tr>
</tbody>
</table>

and informed by data…
# Structured Literacy

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comprehensive</strong></td>
<td>Designed to cover essential foundational components of reading + advanced skills &amp; knowledge</td>
</tr>
<tr>
<td><strong>Systematic</strong></td>
<td>Carefully designed scope &amp; sequence</td>
</tr>
<tr>
<td><strong>Explicit</strong></td>
<td>Effectively delivered with clarity &amp; intention; gradual release of responsibility (I do; We do; You do)</td>
</tr>
<tr>
<td><strong>Intensive</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Multimodality</strong></td>
<td></td>
</tr>
</tbody>
</table>

and informed by data…
## Structured Literacy

<table>
<thead>
<tr>
<th><strong>Comprehensive</strong></th>
<th>Designed to cover essential foundational components of reading + advanced skills &amp; knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Systematic</strong></td>
<td>Carefully designed scope &amp; sequence</td>
</tr>
<tr>
<td><strong>Explicit</strong></td>
<td>Effectively delivered with clarity &amp; intention; gradual release of responsibility (I do; We do; You do)</td>
</tr>
<tr>
<td><strong>Intensive</strong></td>
<td>Focus, purpose, active engagement</td>
</tr>
<tr>
<td><strong>Multimodality</strong></td>
<td></td>
</tr>
</tbody>
</table>

and informed by data…
## Structured Literacy

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive</td>
<td>Designed to cover essential foundational components of reading + advanced skills &amp; knowledge</td>
</tr>
<tr>
<td>Systematic</td>
<td>Carefully designed scope &amp; sequence</td>
</tr>
<tr>
<td>Explicit</td>
<td>Effectively delivered with clarity &amp; intention; gradual release of responsibility (I do; We do; You do)</td>
</tr>
<tr>
<td>Intensive</td>
<td>Focus, purpose, active engagement</td>
</tr>
<tr>
<td>Multimodality</td>
<td>Using all sensory modalities <em>directly related to reading/writing skill development</em></td>
</tr>
</tbody>
</table>

and informed by data…
The Ladder of Reading

© N. Young, 2012 (Updated 2020)
Artwork by Dean Stanton
(Lyon, 1998; NRP, 2000; IDA, 2015; Hempenstall, 2016)

www.nancyyoung.ca

www.corelearn.com

USED WITH PERMISSION
The Ladder of Reading

© N. Young, 2012 (Updated 2020)
Artwork by Dean Stanton
(Lyon, 1998; NRP, 2000; IDA, 2015; Hempenstall, 2016)

www.nancyyoung.ca

USED WITH PERMISSON
Recommended Resources

- Decoding Dyslexia  decodingdyslexia.net
- IDA  https://dyslexiaida.org/
- Reading Rockets  www.readingrockets.org
- The Gaab Lab  www.gaablab.com
- Glean Education  www.gleaneducation.com
- University of Florida Literacy Institute (UFLI) Virtual Teaching Resource Hub  education.ufl.edu/ufli
Learn the Science of Reading

• 7–10-week online course that teaches foundational skills and instructional practices based on the science of reading
• Learn to understand and recognize dyslexia and its warning signs
• Learn the structure of the English and Spanish language system
• Includes the *Teaching Reading Sourcebook* and *Assessing Reading: Multiple Measures* textbooks
• Available for graduate credit

www.corelearn.com/online-elementary-reading-academy
Questions?

Get in Touch with CORE!
info@corelearn.com
888.249.6155

Consortium on Reaching Excellence in Education

@COREInc