Implementing an Intensive Reading Intervention for Students with Dyslexia

Together in Equity
National ESEA Conference

February 4 – 7, 2020

Connie Steigerwald, W.C.T., W.D.T.
Director of Partner Development, Literacy Advisor
Wilson Language Training
Your Dyslexic Students

Take a moment to write down either what you’ve experienced or what you imagine to be the difficulties for students with dyslexia in a classroom setting?

Dyslexia

“Dyslexia is a neurobiological condition caused by a different wiring of the brain. There is no cure for dyslexia and individuals with this condition must learn coping strategies. Research indicates that dyslexia has no relationship to intelligence. Individuals with dyslexia are neither more nor less intelligent than the general population.”

-International Dyslexia Association

Brain differences associated with dyslexia have been identified in both:

- Brain Structure
- Brain Function

Dyslexia is a brain-based type of learning disability that specifically impairs a person’s ability to read.

Excerpt from the definition adopted by the National Institute of Child Health and Human Development, 2014.

Studies have identified a number of genes that may predispose an individual to developing dyslexia.

Inherited genes may interfere with the development of particular fibers in the left hemisphere of the brain that are involved with mapping sounds and word/letter recognition.

-Dr. Nadine Gaab
Boston Children’s Hospital’s Laboratories of Cognitive Neuroscience
Dyslexia Defined

dys - difficulty, lacking in ability
lexia - language, pertaining to words

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 International Dyslexia Association, 2002.
Reading Acquisition for Students with Dyslexia

Cognitive Skills / Knowledge

- **Oral Comprehension**
  (Inference Making, Vocabulary, Syntax Metacognitive Monitoring)

- **Orthographic Memory / Knowledge**

- **Rapid Visual-Verbal Responding**
  (Rapid Automatized Naming)

- **Sound-Symbol Correspondence**
  Alphabetic Knowledge

- **Phonological Memory**
  (Verbal Short-Term Memory)

- **Phonological/Phonemic Awareness**

Reading Abilities

- **Reading Comprehension**

- **Fluency**

- **Word Identification – Automaticity**

- **Word Identification**

- **Decoding Accuracy**

Reading Acquisition for Students with Dyslexia

Look back at the difficulties that you noted earlier when thinking about a learner with dyslexia in a classroom setting? How do those areas of struggle relate to the reading abilities and cognitive skills and knowledge outlined on this chart?

Declaration of Rights

- Accurate Diagnosis
- Use the Word Dyslexia
- Evidence-Based Instruction
- Accommodations
- Dyslexia-Friendly Environment

Sally E. Shaywitz, M.D, Audrey G. Ratner Professor in Learning Development, Bennett A. Shaywitz, M.D, Professor of Pediatrics & Neurology
Achieving Literacy for Life

Declaration of Rights

1. Accurate Diagnosis.
   Students who have a suspected area of disability are entitled to an assessment, regardless of whether they are in a public, private, or charter school.
   More: www.dyslexia.yale.edu/diagnosis.html

2. Use the Word Dyslexia.
   Schools must use the word “dyslexia” so that proper diagnosis and evidence-based instruction and intervention can be applied.
   More: www.dyslexia.yale.edu/usedyslexia.html

3. Evidence-Based Instruction
   All students deserve to have a written plan of action from the school, specifying the evidence-based intervention, frequency, and measurable objectives. This must be arrived at by a consensus between parents and teachers.
   More: www.dyslexia.yale.edu/instruction.html

4. Accommodations.
   Accommodations must be provided to ensure that the students’ abilities, not their disabilities, are being assessed. Examples: extra time on tests, speech-to-text or text-to-speech technology, foreign-language waiver or alternative.
   More: www.dyslexia.yale.edu/accommodations.html

   A supportive environment that promotes educational and professional progress must be provided to enable dyslexic individuals to flourish to their full potential.
   More: www.dyslexia.yale.edu/dyslexiafriendly.html

IDEA: The Individuals with Disabilities Education Act
There are 14 different categories to define students eligible for an IEP, including those with a learning disability, within which dyslexia is cited as a specific example.
Evidence-Based Instruction

According to the federal Every Student Succeeds Act (ESSA), an evidence-based program is an activity, strategy, or intervention that shows a statistically significant effect on improving student outcomes or other relevant outcomes.


The What and How

The WHAT
- Phonemic Awareness
- Phonics
- Fluency
- Vocabulary
- Comprehension

The HOW
- Explicit
- Systematic

Explicit Instruction

“Explicit means clearly explaining and modeling key skills, coupled with purposeful examples.”


Four Core Practices of Explicit Instruction:
- Modeling with clear explanations
- Verbalizing the thinking process
- Providing practice opportunities
- Feedback

Systematic Instruction

“Systematic refers to using a planned scope and sequence of skills and pacing, in which prerequisite skills are taught and mastered before students move on to the next skill.”

### STEP 2 | Closed Syllables (4-6 Sounds)

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Welded sounds for the graphemes <em>ang</em>, <em>ing</em>, <em>ong</em>, <em>unk</em>, <em>ank</em>, <em>ink</em>, <em>onk</em>, <em>unk</em> (bang, pink), adding suffix <em>-s</em> (&lt;i&gt;kings&lt;/i&gt;)</td>
</tr>
<tr>
<td>2.2</td>
<td>Four sounds in a closed syllable, adding suffix <em>-es</em> or <em>-es</em> (&lt;i&gt;flag, steps, brushes&lt;/i&gt;)</td>
</tr>
<tr>
<td>2.3</td>
<td>Closed-syllable exceptions <em>lid</em>, <em>ind</em>, <em>old</em>, <em>ost</em>, <em>oli</em> (&lt;i&gt;mold, host&lt;/i&gt;)</td>
</tr>
<tr>
<td>2.4</td>
<td>Five sounds in a closed syllable, adding suffix <em>-es</em> or <em>-es</em> (&lt;i&gt;s pend, crafts, branches&lt;/i&gt;), 15 common closed-syllable Latin-base elements (&lt;i&gt;-rupt-, -sist-, etc&lt;/i&gt;)</td>
</tr>
<tr>
<td>2.5</td>
<td>Three-letter blends and up to six sounds in a closed syllable (&lt;i&gt;s print, scrap&lt;/i&gt;), adding suffix <em>-s</em> or <em>-es</em> (&lt;i&gt;s print, scraps, stresses&lt;/i&gt;); 15 common closed-syllable Latin-base elements with &lt;i&gt;ct&lt;/i&gt; blend (&lt;i&gt;-duct-, -spect-, etc&lt;/i&gt;)</td>
</tr>
</tbody>
</table>

“Systematic refers to using a planned scope and sequence of skills and pacing, in which prerequisite skills are taught and mastered before students move on to the next skill.”
Importance of Multisensory Teaching

One more HOW

“Using multisensory experiences activate more circuitry during language learning and produce multiple representations in working memory that improve the explicitness, completeness, and durability of what is stored in long term memory.”

Multisensory Teaching of Basic Language Skills, Judith Birsh

Multisensory Instruction

“If students who need basic skills are taught in a multisensory, systematic way, they will make substantial progress.”

-Curtis & Longo, 1999; Penney, 2002

Multisensory: Visual-Auditory-Kinesthetic-Tactile

Students are ACTIVE in their learning:

- Card and Tile Manipulation
- Tapping
- See – Say – Write
- Scooping with Fingertip
- Tracing and Skywriting

Multisensory Instruction

Vowel Suffixes | Consonant Suffixes
---|---
ed | s | hopeful
es | ful | hoping
ing | less |
ive | ment |
y | ly |

For students with a language learning difficulty, instruction which includes demonstration and practice with manipulatives helps to clarify verbal explanations.

-Janney & Snell, 2004

MSL Instruction

- Phonology/Phonological Awareness
- Sound-Symbol Association/Phonics
- Syllable Instruction
- Morphology
- Orthography
- Syntax
- Semantics
Key Components of an Intensive Reading Intervention

The Wilson Reading System® (WRS) is for students in grades 2-12 and adults who have significant difficulty in word-level decoding, automatic word recognition, fluency, and spelling, including students with dyslexia who require an intensive remedial program.

The Goal of an Intensive Intervention

GOAL: Students independently read grade level text (narrative and informational) with ease and understanding

Along the way, teach students to monitor their own: word reading accuracy and comprehension with a gradual release of responsibility model

The What and How

The WHAT
Phonemic Awareness
Phonics
Fluency
Vocabulary
Comprehension

The HOW
Explicit
Systematic
Multisensory

Key Components of Instruction - What

- Word Identification Accuracy & Spelling
- Automaticity & Fluency
- Vocabulary and Comprehension

Word Identification Accuracy & Spelling

- Phonemic awareness linked to the alphabetic principle
- Phonology, including the study of sounds within their syllable environments
- Morphology and the study of word elements
- Orthography – Internalizing the rules that govern English
- High frequency word instruction
- Pseudo (nonsense) word instruction
- An integrated and systematic study of phonology, morphology, and orthography
Phonology - Study of Phonemes

Phonology is the study of phonemes

**Phoneme** = the smallest unit of sound

**Grapheme** = the written representation of a phoneme

The phoneme or sound /f/ has two corresponding graphemes: **f** and **ph**

Closed Syllable

- Has only one vowel
- Vowel is followed by one or more consonants (closed in)
- The vowel is short

Morphology and the Study of Word Elements

Study of Morphology  →  Study of Word Elements

Orthography

<table>
<thead>
<tr>
<th>Decoding</th>
<th>Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>hopes =  <strong>hope</strong> + <strong>s</strong></td>
<td>hope + ing = <strong>hoping</strong></td>
</tr>
</tbody>
</table>

Phonology

Letter-Sound and Sound-Letter Relationships

Master in two directions:
- Grapheme to phoneme
- Phoneme to grapheme

Keywords for association (vowels and unknown consonants)

“Clip” consonant sounds

Syllable Types

- Closed Syllable
- Vowel-Consonant-e Syllable
- Open Syllable
- Final Stable Syllable
- R-Controlled Syllable
- Vowel Digraph/Diphthong Syllable

Morphology Instruction

Word Elements

**Affixes**

- prefixes
- suffixes

- **un**
- **non**

- **ed**
- **ly**

- **rupt**
- **lect**

- **graph**

**Latin & Greek Base Elements**

Orthography
High Frequency Word Instruction
High frequency words can be phonetically regular.
e.g. she, for, my

Many high frequency words are irregular words.
e.g. what, was, push

Pseudo (Nonsense) Word Instruction
“The ability to read nonsense words is the best measure of phonologic decoding skills in children.”
-Shaywitz, 2003

An Integrated and Systematic Study of Phonology, Morphology, and Orthography
WRS instruction incrementally interweaves phonology, morphology, and orthography, thus systematically teaching students how words work.

Teaching Total Word Structure
www.wilsonlanguage.com

Key Components of Instruction - What
Key Components of Instruction - WHAT
- Word Identification Accuracy & Spelling
- Automaticity & Fluency
- Vocabulary and Comprehension

To develop students’ word automaticity and rate-appropriate independent reading of connected text with ease and expression to gain meaning.
Kuhn, Schwanenflugel, & Meisinger, 2010; Samuels & Farstrup, 2006; Wilson, 1996
Integrated & Systematic

Exposure and practice are key!!!!
Students must have multiple opportunities to develop quick and automatic word recognition of both phonetically controlled and high frequency words.

Fluency

Prosody not Speed

Jack put the ball into the net.

Prosody is the rhythmic or tonal aspects of spoken language, and prosodic reading involves chunking groups of words into meaningful phrases according to syntax.

Kuhn & Stahl, 2003

Key Components of Instruction

Key Components of Instruction - WHAT
- Word Identification Accuracy & Spelling
- Automaticity & Fluency
- Vocabulary and Comprehension

Vocabulary

Direct Vocabulary Instruction
Directly teach students the meaning of selected words that correspond to the current concept.

Reading
Provide word-learning strategies that are helpful when reading or listening to connected text.

Core Words: ‘Word Zones’

http://textproject.org/assets/library/resources/WordZones_4000-simple-word-families.pdf
Academic Word List

Academic Resource: Victoria University of Wellington
http://www.victoria.ac.nz/lals/resources/academicwordlist/sublists/sublist01

Comprehending Text

Goal = understanding age-appropriate **narrative** and **informational** text...

1. Initially with listening comprehension
2. Ultimately with silent reading

**Narrative**

Narrative texts use a story structure that includes elements such as setting, characters, conflict, plot, and resolution.

**Informational**

Informational text includes the following text structures:
- Description
- Chronology/Sequence
- Compare/Contrast
- Problem/Solution
- Cause/Effect

© 2020 WILSON LANGUAGE TRAINING CORPORATION. ALL RIGHTS RESERVED.
**Program Implementation**

A full Wilson Reading System (WRS) Lesson requires completion of all three blocks.

An **absolute minimum** of two WRS lessons (all three blocks) must be completed each week.

**1:1 Instruction**
- Minimum of two full WRS lessons per week
- Each lesson takes 60-75 minutes to complete (in some cases 90 minutes per lesson will be needed)
- Will progress more quickly if full lesson is schedule three to five times per week

**Small-Group Instruction**
- Recommended up to 4 students, up to 6 with experienced teacher
- Homogenous grouping based on similar word attack and spelling measures
- Minimum of two full WRS lessons per week
- Each lesson takes 90 minutes to complete
- Optimal schedule = 90 minutes x 5 times per week

---

**WRS Lesson Plan Outline**

<table>
<thead>
<tr>
<th>LESSON</th>
<th>LEARNING OBJECTIV</th>
<th>TIME</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sounds Quick Drill</td>
<td>1-2:3</td>
<td>Phonemic Awareness Decoding</td>
</tr>
<tr>
<td>2</td>
<td>Teach &amp; Review Concepts for Reading</td>
<td>1:5</td>
<td>High Frequency Word Reading</td>
</tr>
<tr>
<td>3</td>
<td>Word Cards</td>
<td>1:5</td>
<td>Single Word Accuracy/Automaticity</td>
</tr>
<tr>
<td>4</td>
<td>Wordlist Reading</td>
<td>1:5</td>
<td>Phoneme Segmentation Encoding</td>
</tr>
<tr>
<td>5</td>
<td>Sentence Reading</td>
<td>1:5</td>
<td>English Spelling Rules</td>
</tr>
<tr>
<td>6</td>
<td>Quick Drill in Reverse</td>
<td>1:2</td>
<td>Fluency/Comprehension</td>
</tr>
<tr>
<td>7</td>
<td>Teach &amp; Review Concepts for Spelling</td>
<td>1:2</td>
<td>Vocabulary</td>
</tr>
<tr>
<td>8</td>
<td>Written Work Dictation</td>
<td>1:2</td>
<td>Concept Mark Up</td>
</tr>
<tr>
<td>9</td>
<td>Controlled Text Passage Reading</td>
<td>1:2</td>
<td>Sentence-Level Punctuation and Proofreading</td>
</tr>
<tr>
<td>10</td>
<td>Listening/Reading Fluency and Comprehension</td>
<td>1:2</td>
<td>Narrative and Informational Text</td>
</tr>
</tbody>
</table>
WRS: An Intensive Intervention

Students pace through WRS based on:
• Mastery of skills
• Understanding of language concepts
• Application of skills to connected text with accuracy, fluency, and understanding

For many students this will take two to three years, but depending upon the student and circumstances, it can take even more time.

Intensity and Duration of Intervention

“A child with a reading disability who is not identified early may require as many as 150 – 300 hours of intensive instruction if he is going to close the reading gap…
And, of course, the longer identification and effective reading instruction is delayed, the longer the child will require to catch up.”

-Shaywitz, 2003

Intensive Reading Intervention

Treatment studies have shown neurological changes as a result of effective intervention.

Brain Structure: gray and white matter changes

-Keller et al., 2009; Flowers et al., 2011

Functional Changes

-Shaywitz et al., 2004; Simos et al., 2002 Temple et al., 2003; Eden et al., 2004; Meyler et al., 2009

High Quality Program Implementation

Elements of a high-quality implementation of instruction include:
• targeting the appropriate student population
• small group size
• scheduling of full and complete lessons: length, frequency, duration, and setting
• student progression through the program based on mastery and documented by formative and summative assessments
• instructor: recommended training, certification, and professional credentials
Professional Learning for Educators

Professional learning that improves educator effectiveness is fundamental to student learning.

Learning Forward: www.learningforward.org

Individuals with an identified language-based learning disability, such as dyslexia, require specialized and diagnostic instruction from a highly trained teacher.

To be well prepared to work with this student population, the teacher must have background knowledge and understanding, and have graduated from a program that includes a supervised student practicum with mentoring by a highly qualified instructor.

Next Steps

Think about what was shared during this session. What next steps can you take to further support your students with dyslexia?

Intensive Reading Intervention

“Reading is a social justice issue; as a teacher, you change pathways. You cannot leave this to chance – you control the issue of teaching reading effectively to your students.”

-Nicole Patton Terry, Ph.D., Professor of Education and Associate Director of the Florida Center for Reading Research at Florida State University

Forward Together Guide to A School Leader’s Guide to Creating Inclusive Schools, 2019

National Center for Learning Disabilities, Understood