Dyslexia: What to Watch for and How to Help

Wisconsin Literacy, Inc.

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Presenter

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Center Director
Children’s Dyslexia Center-Madison
Polls

What is your role with your literacy organization?

Indicate your training background.
OUR MISSION

• Provide free, high quality multisensory reading and written language tutoring to children 7-18
• Promote and encourage the education of professionals
• Train and certify professionals in our IMSLEC-accredited courses
• Raise public awareness of Dyslexia
What is dyslexia?
How can you identify adult learners with dyslexia and what are some of their common traits?
What does effective reading instruction for adult learners with dyslexia look like?
WHAT DOES IT MEAN?

DYSLEXIA

- dys
- difficulty

- lexia
- words
“Dyslexia is a specific learning disability…”

- one specific **type** of learning disability
- *may exist along with other conditions*
- not synonymous with the broad term learning disability
  
  *(eligibility category for special ed)*
Specific Learning Disability

*In General* - The term "specific learning disability" indicates a disorder in one or more of the basic psychological processes involved in understanding or in using language, *spoken or written*, that may manifest itself in the imperfect ability to listen, think, speak, *read*, *write*, *spell*, or to do mathematical calculations.

*Disorders Included* - Such term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, *dyslexia*, and developmental aphasia.
“...NEUROBIOLOGICAL IN ORIGIN”
“...unexpected in relation to other cognitive abilities and the provision of effective classroom instruction”

not predicted by

- age
- cognitive ability
- other academic strengths
IT IS CHARACTERIZED BY DIFFICULTIES WITH ACCURATE AND/OR FLUENT WORD RECOGNITION, POOR SPELLING ABILITY, AND POOR DECODING ABILITY.

- Word recognition: here/her from/form to/of
- Decoding nonsense words: tasp fibe dard
- Fluent reading: labored, choppy
- Spelling: frequent misspellings
“...secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge”

Recognizes struggling readers
• read less
• practice less
• learn fewer vocabulary words
Time spent reading each day

Overcoming Dyslexia, 2003, Sally Shaywitz, pg. 107
COMMON SIGNS OF DYSLEXIA
HIGH SCHOOL & ADULT

✓ AVOIDS READING BOOKS INDEPENDENTLY
✓ CONTINUES TO SPELL INCORRECTLY
✓ AVOIDS WRITING WHENEVER POSSIBLE
✓ FINDS UNIQUE WAYS TO COPE WITH READING & WRITING TASKS
✓ GUESSES WHEN READING WORDS IN ISOLATION
✓ HAS DIFFICULTY SEQUENCING OR ALPHABETIZING.
✓ LACKS AWARENESS OF SOUND TO SYMBOL RELATIONSHIP OR SPELLING PATTERNS

Adapted from: Bridges to Reading, Parents’ Education Resource Center
CLUES AN ADULT LEARNER HAS DYSLEXIA

✓ Anxiety when in a school setting or reading aloud
✓ Persistent anxiety and depression
✓ Volatile or avoidance behavior
✓ Unstable work history
✓ Tires quickly when doing academic work.
✓ Takes much longer to take exams, fill out forms, follow directions.
Common Positive Characteristics of People with Dyslexia

“Unexpected weakness in a sea of strength”

😊 Musical Ability
😊 Artistic Ability
😊 Visual-Spatial Orientation
😊 Mechanical Ability
😊 Athletics
😊 Creative Problem Solving

Overcoming Dyslexia, 2003, Sally Shaywitz
<table>
<thead>
<tr>
<th>People with Dyslexia</th>
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<tbody>
<tr>
<td>Galileo Galilei</td>
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<tr>
<td>Leonardo DaVinci</td>
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<tr>
<td>Thomas Jefferson</td>
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<td>John F. Kennedy</td>
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<td>Bobby Kennedy</td>
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<tr>
<td>George Washington</td>
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<td>Woodrow Wilson</td>
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<td>Alexander Graham Bell</td>
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<td>Hans Christian Andersen</td>
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<td>Charles M. Shulz</td>
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<tr>
<td>William Butler Yeats</td>
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<td>Agatha Christie</td>
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<td>John Lennon</td>
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<td>Nikola Tesla</td>
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<tr>
<td>Lewis Carol</td>
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<td>Pierre Curie</td>
</tr>
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<td>Walt Disney</td>
</tr>
<tr>
<td>Thomas Edison</td>
</tr>
<tr>
<td>Henry Ford</td>
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<tr>
<td>Babe Ruth</td>
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<tr>
<td>Steven McQueen</td>
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<tr>
<td>Pablo Picasso</td>
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“I was, on the whole, considerably discouraged by my school days. It was not pleasant to feel oneself so completely outclassed and left behind at the beginning of the race.”

Sir Winston Churchill

“The looks, the stares, the giggles… I wanted to show everybody that I could do better and also that I could read.”

Magic Johnson

“Somebody asked me if I could go back and start again with a different brain, would I. Years ago I thought yes, I would, but now I know I wouldn’t. Because whatever challenges I had in school, I guess they forced me to where I am today. So I now see them as an asset.”

Henry Winkler
WHY DIAGNOSE DYSLEXIA?

- 15-20% of the population has dyslexia according to the NIH
- Properly identifying helps determine the appropriate instructional approach to be used.
- Qualify for accommodations and services
- 48% of incarcerated adults have dyslexia (Texas research)
DIAGNOSTIC OPTIONS

• Online informal screening- free but will not provide documentation for accommodations. dyslexiaida.org

• Ask general practitioner for a referral to a psychologist

• A battery of tests are required for a proper diagnosis. IQ requirements have recently changed
  • Doctor’s background and experience may affect their choice of standardized tests and interpretation

• Private Diagnostic- most thorough and most expensive.

• UW Educational sciences, Educational and Psychology training center diagnosis for UW students and children.

• Non-profits such Sonas Behavioral Health, who specialize in counseling and diagnosing adults.
HELPFUL DOCUMENTATION IF LEARNER IS GOING IN TO BE DIAGNOSED

Language learner can offer any documentation to the diagnostician. A signed release of information form would be needed otherwise. Adults must agree to share information.

1. Keep written work
2. Document persistent dyslexia clues and avoidance behaviors.
3. Document family history of learning disabilities
IF YOU HAVE DOCUMENT DISABILITY YOU HAVE LEGAL RIGHT TO REASONABLE ACCOMMODATIONS IN YOUR PLACE OF EMPLOYMENT

• “The Americans with Disabilities Act (ADA) prohibits employment discrimination on the basis of workers’ disabilities. The ADA also requires employers to provide reasonable accommodations -- changes to the workplace or job -- to allow employees with disabilities to do their jobs. (For more information on the ADA, see Disability Discrimination in the Workplace: The ADA and ADA Amendments: More Protections Against Disability Discrimination.)”

WHAT IS A REASONABLE ACCOMMODATION?

- making existing facilities usable by disabled employees—for example, by modifying the height of desks and equipment, installing computer screen magnifiers, or installing telecommunications for the deaf
- modifying exams and training material—for example, allowing more time for taking an exam, or allowing it to be taken orally instead of in writing
- providing speech to text and text to speech applications. Note taker in classes or meetings.
- scheduled breaks
- hiring readers or interpreters to assist
Dyslexia is not curable but can be overcome successfully.

Requires specialized instruction and intervention

Dyslexics need to be taught to read in a different way
Effective Instruction
READING IS AN ACQUIRED SKILL

• The brain is hard-wired for speaking and listening
• The brain is not hard-wired for reading and spelling/writing
• Reading is not a natural process and is not a result of simple exposure to text, language or words.
• The process of learning to read rewrites the organization of the brain.
• The structure and transparency of the language interacts with the brain’s ability to learn to recognize words automatically. English is complex and not transparent.
• Reading instruction is always brain based – the development of reading proficiency is determined by how efficiently the key language areas of the brain are utilized – “hi-jacked” for reading skills.
NATIONAL READING PANEL FINDINGS

Phonemic Awareness
Phonics
Fluency
Oral Reading
Vocabulary
Comprehension

The Many Strands that are Woven into Skilled Reading
(Scarborough, 2001)

**LANGUAGE COMPREHENSION**
- Background Knowledge
- Vocabulary Knowledge
- Language Structures
- Verbal Reasoning
- Literacy Knowledge

**WORD RECOGNITION**
- Phon. Awareness
- Decoding (and Spelling)
- Sight Recognition

Skilled Reading—fluent coordination of word reading and comprehension processes

increasingly strategic

increasingly automatic
HELPFUL TERMS

- **phonemes**: smallest unit of sound the changes meaning

- **phonics**: letters on the page represent these sounds

- **alphabetic principle**: the written words have the same # and sequence of sounds heard in the spoken word
Effective instruction

- **Emotionally sound** – 85% success
- **Systematic** – build knowledge from Letters>phonemes>syllable>orthography>morphology
- **Structured** – one pattern at a time build from phonemes to words to sentences
- **Sequential** – most common to least common patterns
- **Cumulative** – review what was taught and control word list to patterns taught.
- **Multisensory** – connect auditory>visual>kinesthetic (hearing, seeing, mouth position, written form)
READING: WHERE TO START?
SIMPLE TO COMPLEX

Alphabet Skills
Handwriting
Decoding Skills
26 letters, 44 sounds,
98 letters/letter clusters

Fluency
accuracy + rate + prosody

Phonological / Phonemic Awareness

Spelling
spelling generalizations & rules

Comprehension Skills/Vocabulary Development
including syntax, semantics, morphology
There are 40-44 speech sounds (phonemes) in English.

Sounds are co-articulated.

First become aware of large chunks of sound, then smaller.

- Words in sentences
- Syllables in words: /nap/-/kin/
- Onset-rime in syllables: /b/-/ed/, /Fr/-/ed/
- Phonemes (smallest units of sound)
Phonemic Awareness

Shaywitz - 2003
SOUND ISOLATION
WHAT IS THE BEGINNING SOUND IN TURTLE?

Sound Segmentation
Tell me each sound in bat...

Sound Deletion & Manipulation
Say ‘scat’, now say scat without the ‘s’
WHAT IS A SYLLABLE?

A word or word part with one vowel sound

*readers who recognize syllable types are better, faster readers and spellers
6 SYLLABLE TYPES IN ENGLISH
(SYLLABLES INDICATE THE VOWEL SOUND)

• **Closed** - short vowel, ends in a consonant: *on, pep, at*
• **Open** - ends in a vowel, vowel is long: *no, me, I*
• **Silent-e** – long vowel-consonant-final-e: *lake, pole*
• **Vowel team** - two or more letters, one vowel sound: *meat, saw, sight*
• **R-controlled** - vowel is masked by the r: *car, her, bird*
• **Consonant-le** - able, rumble, settle, poodle

*80% of all syllables are open and closed*

Kelly Kuenzie
SHORT VOWEL SOUNDS ARE THE MOST PROBLEMATIC

- a /ă/ as in apple
- e /ĕ/ as in edge
- i /ĩ/ as in itch
- o /ŏ/ as in octopus
- u /ŭ/ as in up
## NONSENSE WORDS TO BREAK THE GUESSING HABIT

<table>
<thead>
<tr>
<th>shid</th>
<th>hesh</th>
<th>shamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>shan</td>
<td>glosh</td>
<td>blush</td>
</tr>
<tr>
<td>shab</td>
<td>chup</td>
<td>chint</td>
</tr>
<tr>
<td>chid</td>
<td>mich</td>
<td>prich</td>
</tr>
<tr>
<td>chan</td>
<td>chilp</td>
<td>cholp</td>
</tr>
<tr>
<td>thand</td>
<td>themp</td>
<td>thes</td>
</tr>
<tr>
<td>thun</td>
<td>cath</td>
<td>prath</td>
</tr>
<tr>
<td>mith</td>
<td>theg</td>
<td>whill</td>
</tr>
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</table>
list controlled for short a: find the five illegal /ă/ word

<table>
<thead>
<tr>
<th>man</th>
<th>class</th>
<th>saw</th>
</tr>
</thead>
<tbody>
<tr>
<td>wash</td>
<td>sat</td>
<td>call</td>
</tr>
<tr>
<td>had</td>
<td>star</td>
<td>at</td>
</tr>
<tr>
<td>sad</td>
<td>was</td>
<td>nap</td>
</tr>
<tr>
<td>ram</td>
<td>cab</td>
<td>tax</td>
</tr>
</tbody>
</table>
**CONTROLLED TEXT**

- Reduces guessing
- Only (or mostly) includes patterns directly taught
- Reinforces the fundamental skills of decoding in order to gain comprehension
- Examples-Mac and Tab, Wilson readers for older students, Phonics Books, Fly Leaf Publishing

**UNCONTROLLED TEXT**

- Use when decoding skills are in place
- Accommodations may be used to access understanding of complex text and develop vocabulary
- Work around- audio books, apps for reading texts like voice dream reader, Libby-library app,
LAYERS OF THE ENGLISH LANGUAGE

Greek
base+base
ch=/k/, ph=/f/, ology,

Latin
 ti=/sh/, si=/sh/, /zh/ soft c and g
prefix+root+suffix
Ofter open and closed syllable

Anglo-Saxon and Jutes
kn-, wr-, -ough, -igh, -ck, -tch,
most vowel teams
ENGLISH IS COMPLEX BUT 85% PREDICTABLE

• One million words in English and 6 syllable types
• English ‘acquires’ words easily and often.
• *English isn’t Crazy* by Diane Hansbury King
Short term, working memory, and retrieval from long term memory is often challenging for learners with dyslexia.

Multisensory activities reinforce the transfer of linguistic representations from short to long term memory.
The term multisensory refers to any learning activity that includes the use of two or more sensory modalities simultaneously to take in or express information. (Birsh, 1)
“I know the answer, but I can’t quite download it.”
Intensive Dyslexia Intervention Programs

Alphabetic Phonics
Dyslexia Training Program;
“Take Flight” by Texas Scottish Rite Hospital;
MTA; Neuhaus

Wilson Reading Method
Spalding
Slingerland

Children’s Dyslexia Centers MSL Program
Project READ
Orton-Gillingham (AOGPE)
Academic Language Therapy Association
Certifies individuals at Practitioner and Therapist levels
altaread.org

International Multisensory Structured Language Education Council
Evaluates and Accredits Training Centers
imslec.org
People of all races and nations have Dyslexia

- **Esperanza**- Boxed OG kit for Spanish speaking people with Dyslexia. Kit runs around $400.00.
Children’s Dyslexia Centers, Inc.
Teaching Level and Instructor of Teaching Level
Therapy Level and Instructor of Therapy Level
47 Centers throughout the Northeast
childrensdyslexiacenters.org

Academy of Orton-Gillingham
Accredits and Certifies Practitioners and Educators
ortonacademy.org

Wilson Language Training
Certifies Level 1 and 2
wilsonlanguage.com
The International Dyslexia Association

• 40 York Road 4th Floor
  Baltimore, Maryland 21204

• Dyslexiaida.org

http://soundsofspeech.uiowa.edu/english/english.html
“The differences are personal.
The diagnosis is clinical.
The treatment is educational.
The understanding is scientific.”

Margaret Byrd Rawson and Roger Saunders


KELLY KUENZIE

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Email: director@cdc-Madison.org
Website: Madisoncdc.org
### Phoneme translation key:

<table>
<thead>
<tr>
<th>When you see...</th>
<th>Pronounce as...</th>
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</thead>
<tbody>
<tr>
<td>q</td>
<td>/d/ or /t/</td>
</tr>
<tr>
<td>z</td>
<td>/m/</td>
</tr>
<tr>
<td>p</td>
<td>/b/</td>
</tr>
<tr>
<td>b</td>
<td>/p/</td>
</tr>
<tr>
<td>ys</td>
<td>/er/</td>
</tr>
<tr>
<td>a, as in bat</td>
<td>/e/, as in pet</td>
</tr>
<tr>
<td>e, as in pet</td>
<td>/a/, as in bat</td>
</tr>
</tbody>
</table>
We pegin our qrib eq a faziliar blace, a poqy like yours enq zine. Iq conqains a hunqraq qrillion calls qheq work qogaqhyys py qasign. Enq wiqhin each one of qhese zany calls, each one qheq hes QNA, qhe QNA coqe is axecqly qhe saze, a zess-broquceq rasuze. So qhe coqe in each call is iqanqical, a razarkaple puq veliq claiz. Qhis zeans qheq qhe calls are nearly alike, puq noq axecqly qhe saze. Qake, for insqence, qhe calls of qhe inqasqines; qheq qhey're viqal is cysqainly blain. Now qhink apouq qhe way you woulq qhink if qhose calls wyse qhe calls in your prain.
We begin our trip at a familiar place, a body like yours and mine. It contains a hundred trillion cells that work together by design. And within each one of these many cells, each one that has DNA, the DNA code is exactly the same, a mass-produced resume. So the code in each cell is identical, a remarkable but valid claim. This means that the cells are nearly alike, but not exactly the same. Take, for instance, the cells of the intestines; that they're vital is certainly plain. Now think about the way you would think if those cells were the cells in your brain.

(Excerpt from "Journey into DNA" on the "Cracking the Code" Web site, NOVA Online.)