



Summary of Dyslexia Simulation Power Point

- Misconceptions about Dyslexia:
 - Dyslexia is not seeing letters or words backwards
 - Dyslexia is not caused by vision problems or hearing problems
 - Dyslexia does not result from a lack of effort or because the student is lazy
- The definition of Dyslexia that has been adopted by the International Dyslexia Association and the National Institute for Child Health and Human Development (NICHD)
- Students with Dyslexia have challenges with the sound system of our language; these difficulties are “often unexpected” in relation to other “cognitive abilities.” They have the capacity to learn other things; given the time and proper instruction, they can also learn to read and spell.
- Generally speaking, these students have been in an environment where other children have been able to learn.
- When students have trouble decoding, they have trouble comprehending. So much effort must go into breaking down the words that the meaning of the words is often lost. These students typically read less than their peers. This can lead to limited background knowledge and vocabulary. (There are alternative ways to build background knowledge and vocabulary, such as audiobooks: Learning Ally, and Bookshare, for example.
- The brain is a magnificent tool for learning. We refer to its plasticity; the brain can make new neural pathways in response to repetitive stimulus.
- fMRI is the most commonly used technology to study what the brain does during various learning activities. People with Dyslexia are relying on an area in their frontal lobe and ‘over utilizing’ the right side of their brains. It is important to note that this research has been repeated in multiple studies and been peer reviewed. These studies confirm that dyslexia is neurobiological.

- It is often the case that more than one person in a family has dyslexia. Dyslexia occurs on a continuum; some family members may have mild symptoms and others can exhibit more severe symptoms.
- After third grade there is less direct reading instruction; students are now reading to learn. Students that are not remediated before fourth grade are at a greater risk for remaining poor readers.
- There are a variety of symptoms for dyslexia. Each one is on a spectrum of mild, moderate, severe, or profound. Each person can have more than one symptom, but not have all the symptoms. No two individuals will look exactly alike in their performance, strengths, and challenges.
- The two most obvious difficulties are with reading and spelling. Here are some others:
 - difficulty identifying or generating rhyming words, or counting syllables in words (AKA phonological awareness)
 - Phonemic Awareness-difficulty hearing and manipulating sounds in words
 - Auditory Discrimination-difficulty distinguishing different sounds in words
 - Misreads or omits common small words (service words or high frequency words)
 - May stumble through longer words
 - Poor reading comprehension during oral or silent reading
 - Slow, labored oral reading
 - Challenged by learning the sounds of letters
 - May have a hard time remembering the names and/or shapes of letters
 - Reverses letters or the order of letters when reading, especially after first grade
 - Difficulties with rapid naming tasks
 - Recognizing patterns is difficult
- Generally speaking, a student with dyslexia needs more time to process written and sometimes even spoken information. We live in a culture that anticipates immediate answers to questions. Many students will blurt the first thing that pops into their head. If these students are given more processing time their answers are more likely to be better and more accurate.
- Students with dyslexia usually require a combination of remediation and modifications and/or accommodations. An **accommodation** will be a tool to assist the student to be successful in the school or work environment. Speech-to-text tools, Kurzweil pens, are just a couple examples.

A **modification** may be a change in curriculum content, (a shortened spelling list...every other question instead of all the questions, an oral instead of a written test...)

Remediation must be *explicit, structured, systematic, sequential, and multisensory* in order to be effective. Examples of this are programs that are Orton-Gillingham or Slingerland based.

- Instructors must follow the program step-by-step, provide a great deal of repetition, and allow time for processing.
- **Synthetic phonics is key!** Drop the /uh/ when teaching letter sounds.
- If proper remediation has been implemented, many studies indicate that the neural 'glitch' can begin to look like the neural network of a student without dyslexia.

If you have any further questions, or if you would like me to do a simulation or a Dyslexia 101 for your school staff, please feel free to contact me:

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***Overcoming Dyslexia* by Sally Shaywitz is one among many great resources.**

Other resources: Understood.org and Learning Ally (audio books)