DYSLEXIA BASICS

for Parents and Educators

UNIVERSITY OF UTAH READING CLINIC

Dr. Kathleen J. Brown

www.uurc.org

801-265-3951

A Child's Mind

- Phonology = Sound /say it! /
- Semantics = meaning
- Orthography = spelling /b/-/ă/-/t/= bat
- all 3 working in parallel → automatic word recognition

bat

He had never seen dogs fight as these wxxxish cxxxxxxx fxxxxt, and his first exxxxxxxx txxxxt him an unfxxxxxxxble lxxxxx. It is true, it was a vixxxxxxx exxxxxxxxx, else he would not have lived to prxxit by it. Cxxxx was the vxxxxx. They were camped near the log store, where she, in her friendxx way, made adxxxxxx to a husky dog the size of a full-xxxxx wolf, thxxxx not half so large as xhe. Thxxx was no wxxxing, only a leap in like a flash, a metxx clip of teeth, a leap out exxxxly swift, and Cxxxx's face was ripped open from eye to jaw.

What Causes Reading Difficulties?

The Source(s) of Reading Difficulties are

Constitutional

(in the child)

and/or

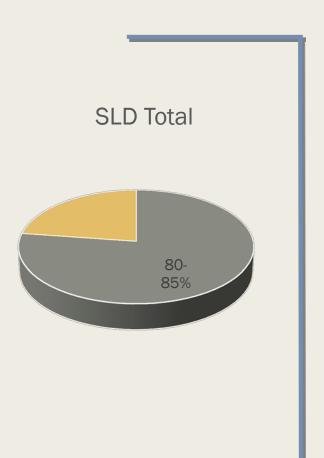
Environmental

(outside the child)

Literacy in Schools

80-85% of students with an identified specific learning disability have a primary problem with reading and/or language

■ 10-20%, or 1 out of every 5-10 students, has symptoms of dyslexia (varies with criteria used to determine dyslexia)



Dyslexia Basics

- Dys = abnormal; but not in a positive way (Greek)
- Lexia = word or words (Greek)

- Many misconceptions (e.g., seeing backwards, colored lenses, marching, eye training)
- Core deficit is in language, specifically, the phonological system (i.e., significant problems matching speech sounds to letters)

Math and oral language abilities typically normal or above

Dyslexia

- is not caused by a visual problem
- is not caused by lack of motivation
- occurs in all socioeconomic levels
- occurs slightly more in boys than girls
- may occur in spite of good classroom instruction
- is resistant to intervention
- may occur with other disorders (e.g., ADD)

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.

Dyslexia is a specific learning disability that is neurobiological in origin...

This definition has been adopted by:

- International Dyslexia Association
- National Institute of Child Health & Human Development (US Department of Health & Human Services)

Utah State Board of Education Definition of SLD

A disorder of 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, write, spell or do mathematical calculations such as perceptual disabilities, brain injury, minimal brain dysfunction, <u>dyslexia</u> and developmental aphasia, that affects a students educational performance.

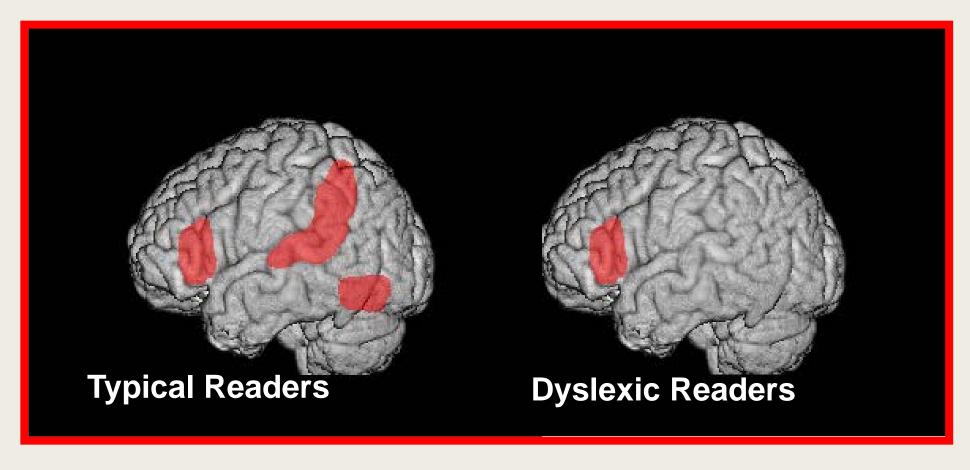
A specific learning disability does <u>not</u> include learning problems that are primarily the result of visual, hearing, or motor disabilities; or intellectual disability; of emotional disturbance; or of environmental, cultural, or economic disadvantage.

—USOE Specific Learning Disability Definition (&300.8©(10)), which relies on the federal definition of a specific learning disability (SLD). May 2, 2013.

Let's break it down...

- Specific learning disability (but not motor, emotional etc.)
- Neurobiological in origin (genetic)
- Inaccurate or non-fluent word recognition
- Poor spelling & decoding abilities
- Deficit in phonological component
- Often unexpected (other cognitive & schooling)
- Secondary consequences

Neurobiological Basis of Dyslexia



Eden et al., Neuron, 2004

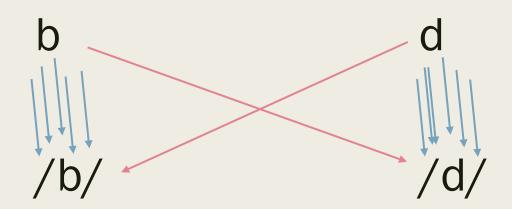
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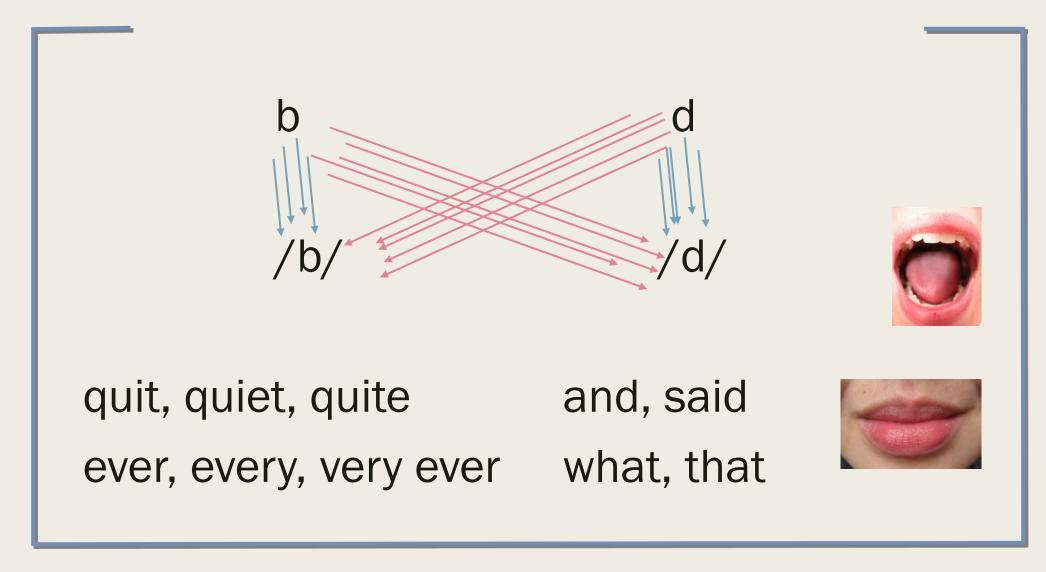
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A Non-Dyslexic Child's Journey in G1



Over time, speech sounds and graphemes processed simultaneously (automaticity). No more mistakes!

A Dyslexic Child's Journey in G1 and On



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Is My Child Dyslexic?

- Timed tests of <u>letter-names</u> or <u>letter-sounds</u> in K & early G1
- Phoneme awareness (e.g. wug, sim) tasks in K & early G1
- Oral reading fluency, a timed test of reading rate and accuracy in connected text

- Poor spelling well below grade level expectations
- Poor response to basic reading intervention

Identifying Reading Disability in Utah

Utah Schools may use any of the following options:

■ A. Response to Intervention

■ B. Discrepancy (1.5 s.d.) between reading achievement & intellectual ability

$$- e.g., IQ = 100 WRMT = 78$$

■ C. Combination of A & B above

Students Who Do Not Qualify for an IEP

■ For students with moderate reading difficulties who do not have IEPs, and who are unlikely to qualify for an IEP, a 504 Plan can be a life-saver!

■ A 504 Plan will allow accommodations that help a junior high/high school student to keep up with coursework and demonstrate optimum performance on standardized tests (e.g., ACT)

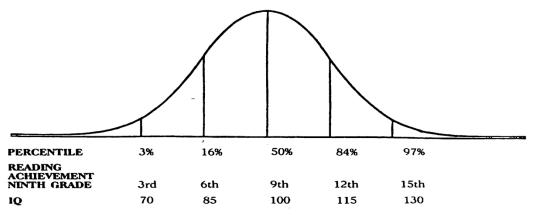
■ Teachers need to be in the 504 "loop" for the plan to work well. A 504 Plan is not "cheating!"

Effective Intervention for Dyslexic Students is...

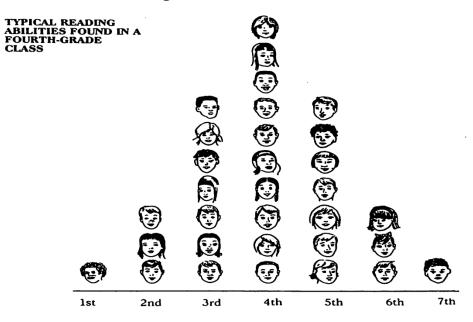
- Explicit,
- Systematic,
- Incremental,
- Cumulative,
- Paced by Data, and,
- Focuses on <u>phonics</u>, <u>spelling</u>
 <u>practice reading</u> real text.



150. The Normal Distribution Curve



There is a strong but far from perfect correlation between Reading Achievement scores and IQ. In other words, on average a ninth grader with an IQ of 85 tends to read about at the sixth-grade level.



Definition of Terms

■ Phoneme: An individual speech sound. (/sh/, /ŏ/, /p/)

■ **Grapheme:** A letter or letter group that represents a speech sound or phoneme. (sh – o – p)

■ Morpheme: The smallest linguistic unit in a word that has meaning. (shop + ed)

www.uurc.utah.edu





Handout in tote bag



For More Information

The International Dyslexia Association

- 40 York Road
 4th Floor
 Baltimore, Maryland 21204
- www.interdys.org
- 1-800-ABCD123
- **410-296-0232**

