

# *Specific Learning Disorder*

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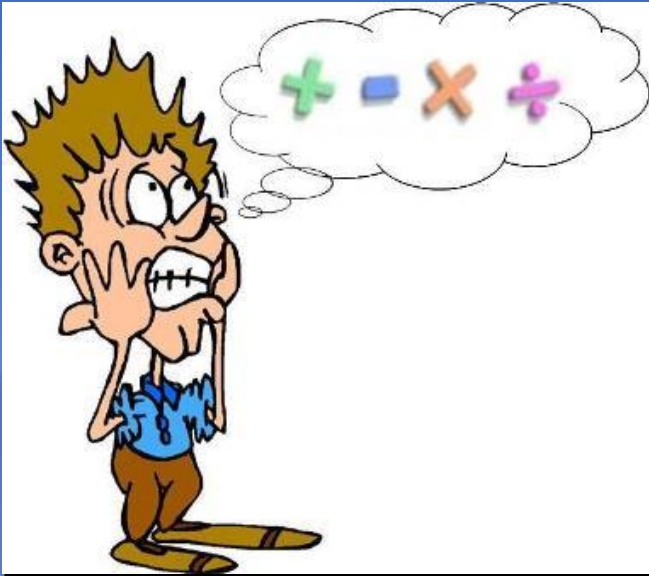
# *Criteria*

- DSM-5
  - Persistent difficulty learning academic skills
    - Reading
    - Written Expression
    - Mathematics
  - Academic performance is below expectation
  - Difficulty apparent in early school years
  - Difficulty not better accounted for by other neurological disorder

# *Specifiers*

- Reading
  - Word reading (dyslexia)
  - Reading rate or fluency
  - Reading comprehension
- Written Expression
  - Spelling
  - Grammar and punctuation accuracy
  - Clarity or organization of written expression

# Specifiers



- Mathematics
  - Number sense
  - Memorization of math facts
  - Accurate or fluent calculation
  - Accurate math reasoning

# *Outcomes*

- Increased risk:
  - Dropout
  - Lower educational attainment
  - Psychological distress
  - Unemployment or underemployment



# *Misconception*

- Learning Disorders are the same as other disorders that impact learning

# *Differential Diagnosis*

- Intellectual Disability
- ADHD
- Autism Spectrum Disorder
- Normal variation

\*co-morbidity is common

# *Misconception*

- Learning Disorders correspond to low IQ



# *Misconception*

- Prevalence has increased

# *Specifiers/Prevalence*

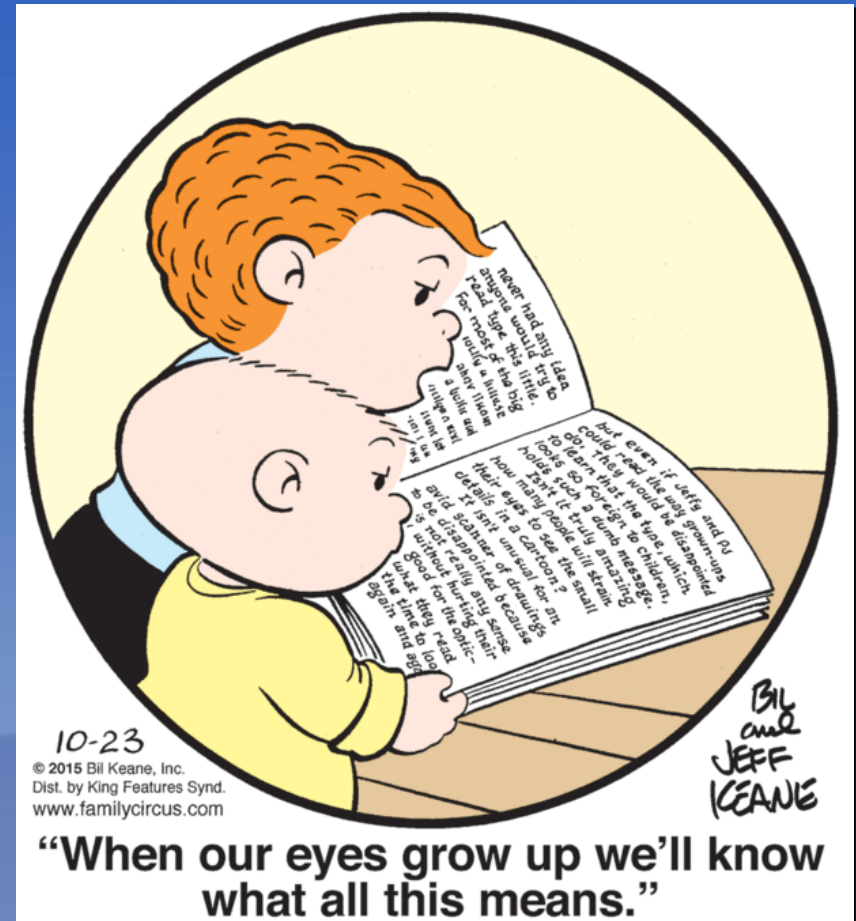
- Prevalence
  - 5-15% (based upon children)
  - More frequent diagnosis in males (2:1 or 3:1)
  - 80% of cases are in reading

# *Misconception*

- Learning Disorders fade with time

# Course

- Persists into adulthood
- High school to college
  - Slow reading rate, comprehension, written expression, math problem solving



# *Misconception*

- Learning Disorders are easy to diagnose

# *Diagnosis*

- Discrepancy between IQ & achievement
  - Historically popular
  - Research does not support
- Response to intervention
  - Progress monitoring and intervention
  - Just focuses on low achievers
- Cognitive processes
  - Cognitive processes that underlie achievement

# *Assessment*

- Comprehensive evaluation
  - IQ
  - Reading
  - Writing
  - Math
  - Information processing
    - Attention/executive functioning
    - Language
    - Memory
    - Visual
  - Social/Emotional Functioning

# *Typical Processing Weaknesses*

- Word decoding
  - Phonological awareness (rapid naming, processing speed)
- Reading Fluency
  - Rapid naming (processing speed, orthographic competence)
- Comprehension
  - Language
  - Listening comprehension
  - Working memory



# *Typical Processing Weaknesses*

- Written Expression
  - Spelling
  - Language
  - Executive functioning
- Math
  - Working memory
  - Executive functioning
  - Language

# *Dyslexia*

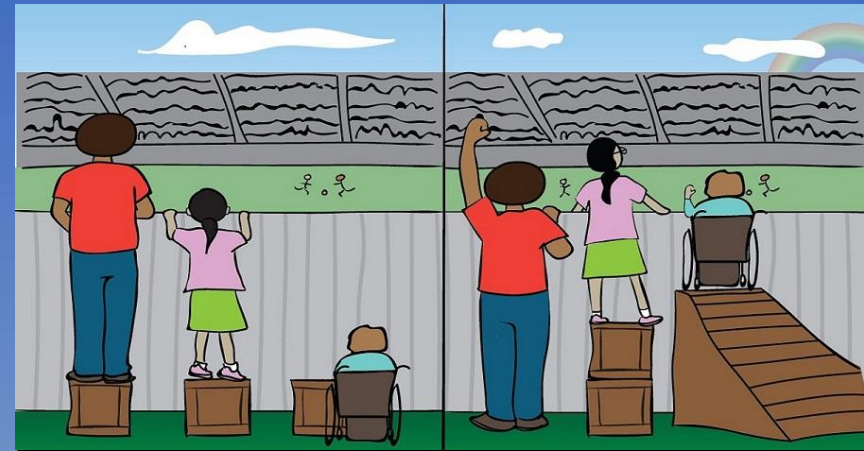
- Misconceptions:
  - All children who reverse letters have dyslexia
  - People with dyslexia see things backwards
  - People with dyslexia never learn to read well
  - Dyslexia is a medical diagnosis

# *Dyslexia*

- Misconceptions
  - Can be treated with:
    - Fish oil
    - Tinted lenses
    - Balancing exercises
    - Vision therapy
    - Medication

# Accommodations

- Idea to “level the playing field”
- Based upon results of the evaluation
  - Must consider other factors



# *Common Accommodations*

- Extended Time
- Word Processor
- Voice Recognition
- Screen reader
- Calculator
- Formula Sheet
- Word Bank
- Scantron

# *Common Accommodations*

- Note taking asst.
- Audio books
- Extended time
- Extended deadlines
- Foreign language sub
- PowerPoint
- Written notice
- Group projects
- Relaxed attendance
- Classroom breaks

# *Case Example #1*

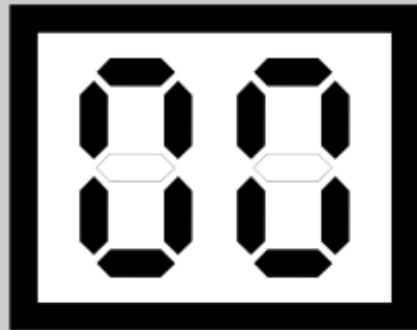
- 18 year old, Caucasian male
- High school graduate (3.96 GPA)
- College freshman
- No significant medical history aside from ear infections and tubes
- Healthy, college athlete

# *Case Example #1*

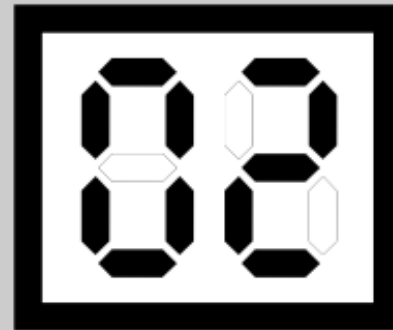
- History of reading and spelling difficulty - since 3<sup>rd</sup> grade
- Diagnosed and received services through an IEP
- Current -slow reader, poor speller
- No problems with math
- Previously diagnosed ADHD - pediatrician
  - Inconsistent medication (2 years)



# SCORES



**AWAY**



**HOME**

# *Case Example #1*

- Weaknesses
  - Reading
    - Decoding
    - Rate
  - Spelling
  - Phonological processing

# *Case Example #1*

- Diagnosed with Dyslexia
  - IQ = high average
  - Solid skills -
    - sensorimotor
    - attention/executive functioning
    - Visual spatial
    - Memory
    - Language
    - Social/emotional

# *Accommodations??*



## *Case Example #2*

- 20 year old, Latin/African American male
- Graduated high school (3.3 GPA)
- College sophomore
- Parents both have master's degrees
- Medical history - scarlet fever, ear infections, tonsillectomy/adenoidectomy

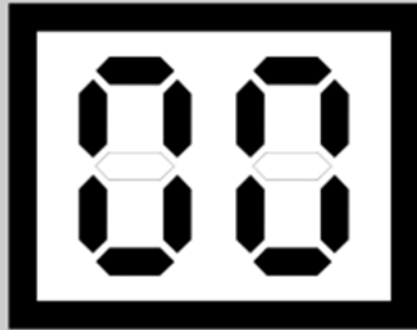
# *Case Example #2*

- History
  - Speech and writing weaknesses
    - Speech therapy
  - Repeated kindergarten
  - Diagnosed with CAPD, ADHD
  - 504 Plan - second grade (+ private tutoring)
  - Treated for anxiety
    - Therapy
    - Medication briefly in high school

## *Case Example #2*

- Reported difficulties:
  - Staying focused/daydreaming
  - Careless mistakes
  - Studying and completing assignments on time
  - Organization for writing
  - Worry about making mistakes
  - Anxiety related to making friends
    - Feels “awkward,” avoids

# SCORES



**AWAY**



**HOME**



# *Case Example #2*

- Diagnosed with
  - ADHD, combined
    - Parent and self-report (past and current)
    - CPT scores and executive functioning weaknesses
    - Observations (organization)
  - Generalized Anxiety Disorder
    - Worry, nervousness, muscle tension, fatigue, restlessness, sleep disturbance
    - Difficulty controlling worry
    - Mood impacted by anxiety

# *Case Example #2*

- Diagnoses (cont.)
  - Specific Learning Disorder - Reading
    - Rate or fluency
    - Weak rapid naming, phonological memory, executive functioning
- Earlier testing did not indicate academic achievement weaknesses (7 years ago)

