Legislative Council Study Committee:
Identification and Management of Dyslexia

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Presentation Overview

Why We Chose to Focus on *Reading* to Address Dyslexia

- The Stakes are High: Wisconsin Reading Stats
- Effective Reading Instruction: The SCIENCE is Clear
- Why Wisconsin is falling behind other states

Dyslexia Update

- Key Points to Remember
- Scientific Imaging

Using Reading Science to **Identify & Manage Dyslexia**

- Response to Intervention and Special Education
- Core Curriculum / Screening & Assessments / Teacher Training

Let's Talk Reading: What are the Stakes for Wisconsin?

- Unmet potential: due to learning disabilities (by definition, not achieving as expected) and/or curriculum casualties

- Staggering economic costs: an estimated at $3.4-$7.6 billion lost annually due to low health literacy (Vernon, 2007)

- Untrained work force: "…we cannot afford to leave large numbers of our students behind their peers and expect the Wisconsin economy to continue without disruption."

-Tony Evers, WI Superintendent

Let's Talk Reading: What's at Stake for Dyslexic Students?

Dyslexia impacts students from all racial/ethnic, economic, and education levels, but outcomes vary greatly

- Poor and/or limited reading experiences result in limited exposure to vocabulary/content
- Also higher risks for:
  - Teen pregnancy
  - Substance abuse
  - Anxiety, depression, suicide
  - School failure, dropping out
  - Multiple poor health outcomes throughout life

With effective intervention, students have the opportunity to realize their full potential.

In a Highly Literate Society, Not Learning to Read = Marginalization

85 % of juvenile offenders have trouble reading

Inmates have a **16%** chance of returning to prison if they receive literacy help, as opposed to a **70%** chance for those who receive no help

Risks for students with untreated reading disabilities:

More delinquency and incarceration, becoming more violent once in the system, and more likely to violate parole

National Assessment of Educational Progress (NAEP)
WI reading performance 2017

WI 4TH GRADE READING SCORES

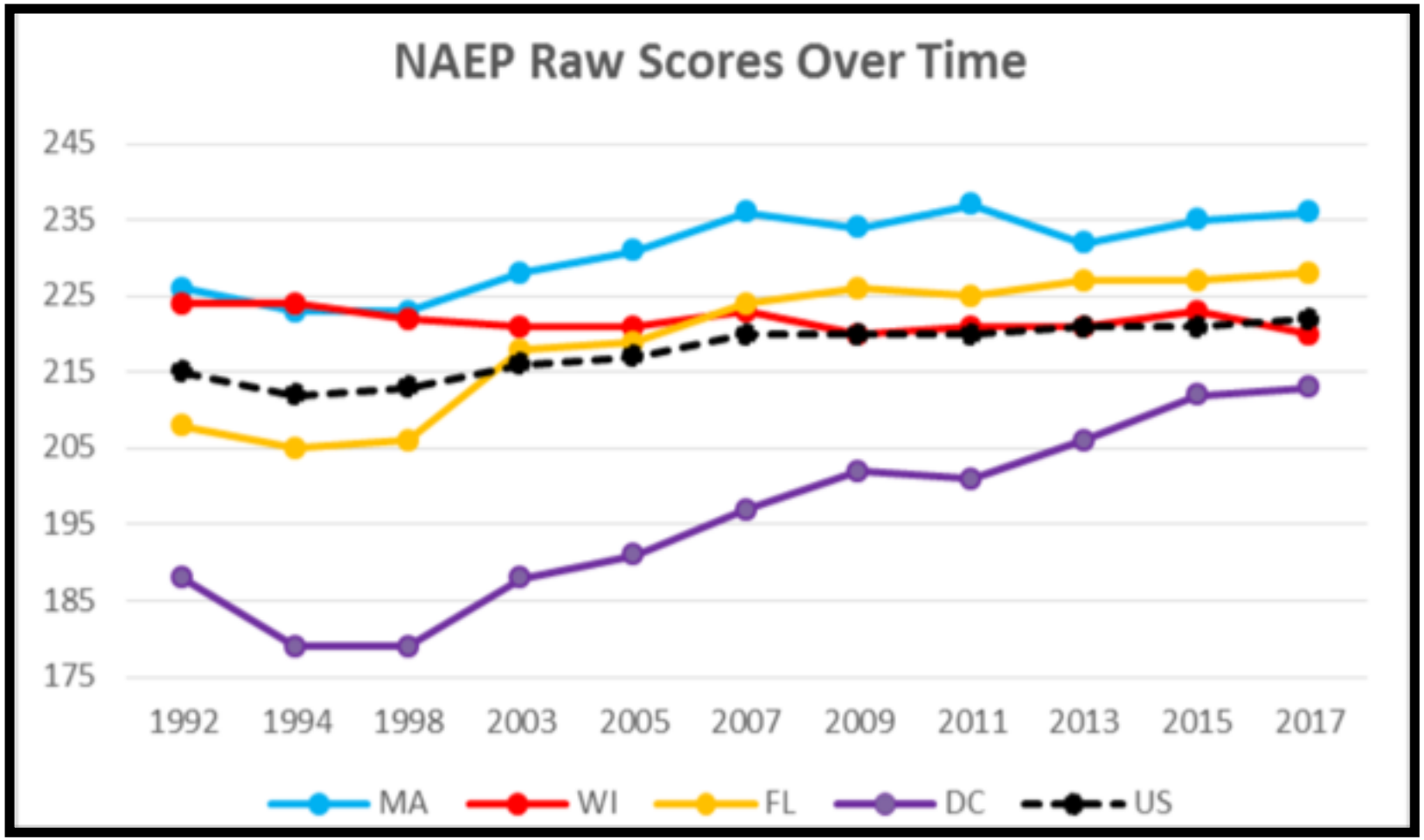
8% advanced

27% proficient

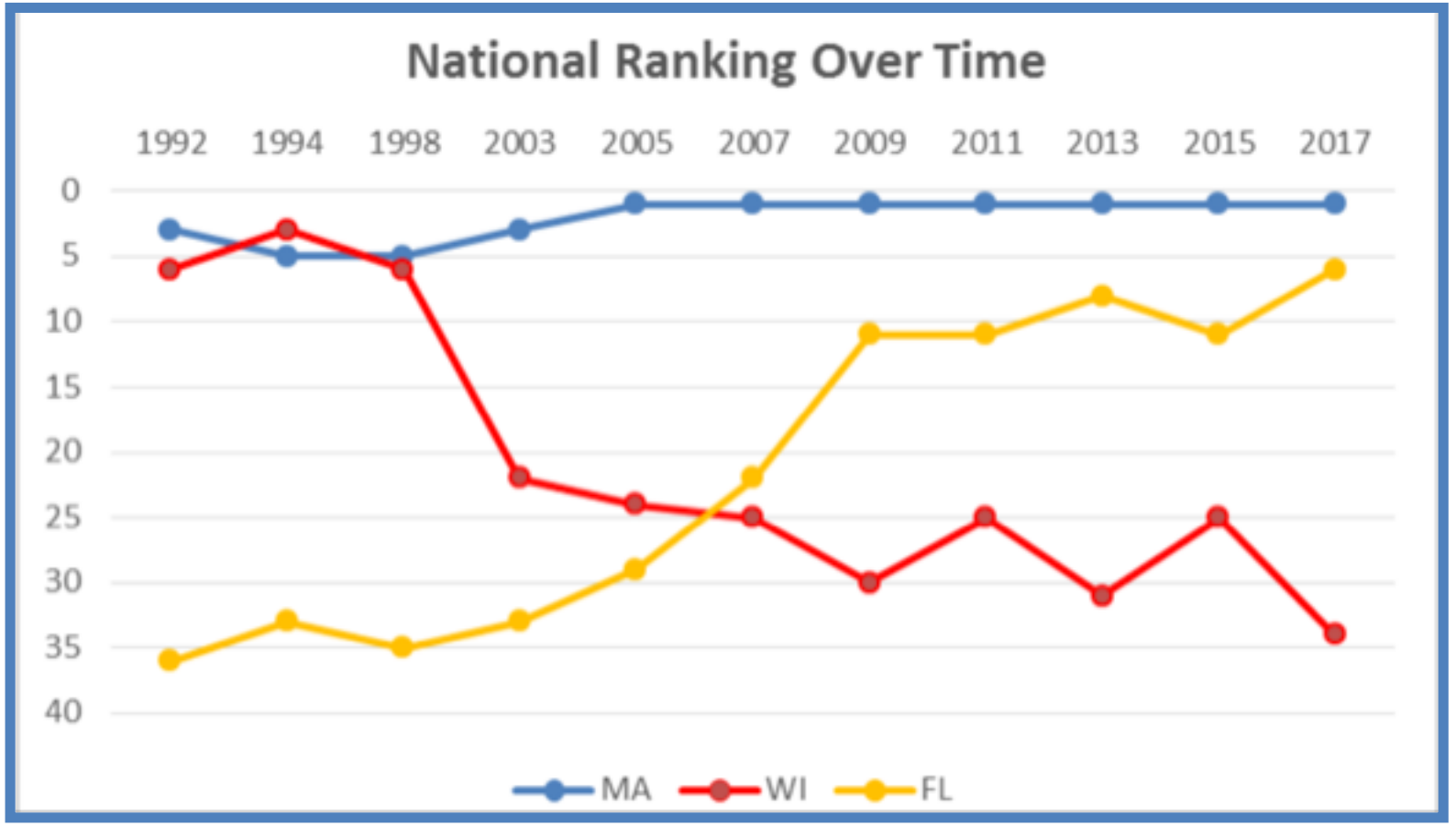
31% basic

34% BELOW basic

Some will say ALL IS WELL:
Wisconsin Reading Scores "Remain Steady"



IN REALITY: Wisconsin's rank has fallen dramatically as several other states have implemented changes

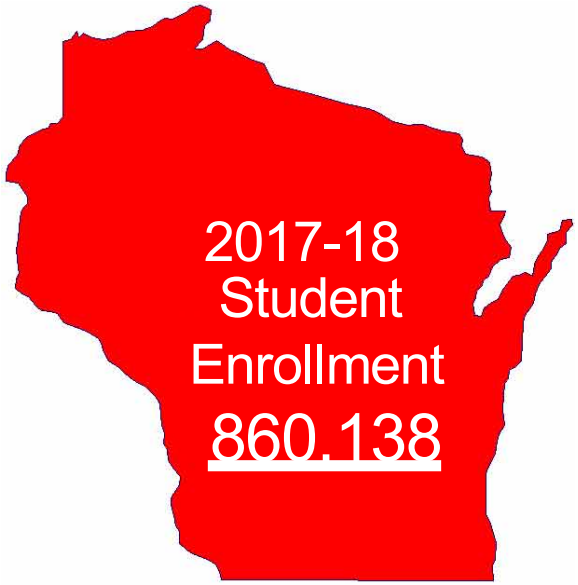


- In 1994 <u>Wisconsin</u> ranked **3rd** on NAEP reading scores.
- In 2017 <u>Wisconsin</u> ranked **34th** nationally.

Massive Gaps in Reading Scores by Sub-groups: Race, Disability, Economic Status

In Wisconsin:

- **65% (559,090 students)** lower than proficient
- Based on 2017 results, **ALL** racial, economic, & disability sub-groups perform below the national average
- Scores of white students rank **41st** compared to white peers in other states, below Alabama & Mississippi
- Scores of African American students rank **49th** compared to African American peers
- Black students score **32 points (3 grade levels) lower** than white students



Let's talk effective reading instruction

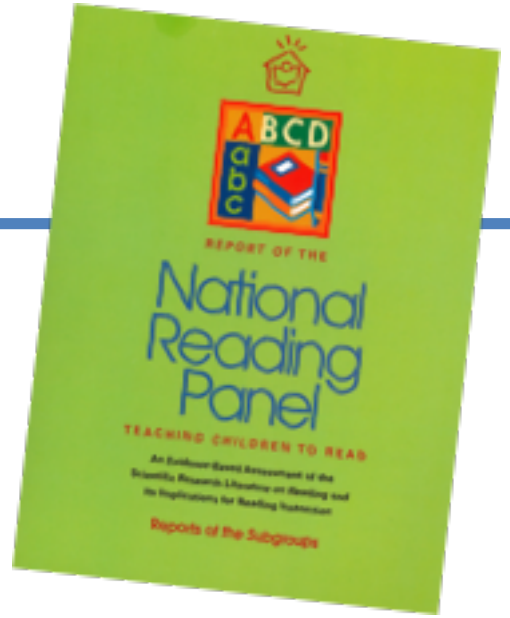
Learning to read is a process of developing and integrating specific skills.

- All students MUST learn each level in the hierarchy of connected skills.
- It is more difficult for students with dyslexia to build and strengthen neurological connections related to reading.

Effective reading instruction helps ALL students…
but some students are in big trouble without it!

- Just as every child benefits from good nutrition, every child benefits from effective reading instruction.
- Children at risk for diabetes require good nutrition to avoid lifelong problems; students with dyslexia need effective reading instruction to avoid lifelong struggles/disability

Science Explicitly Defines 5 Key Components of Effective Reading Instruction



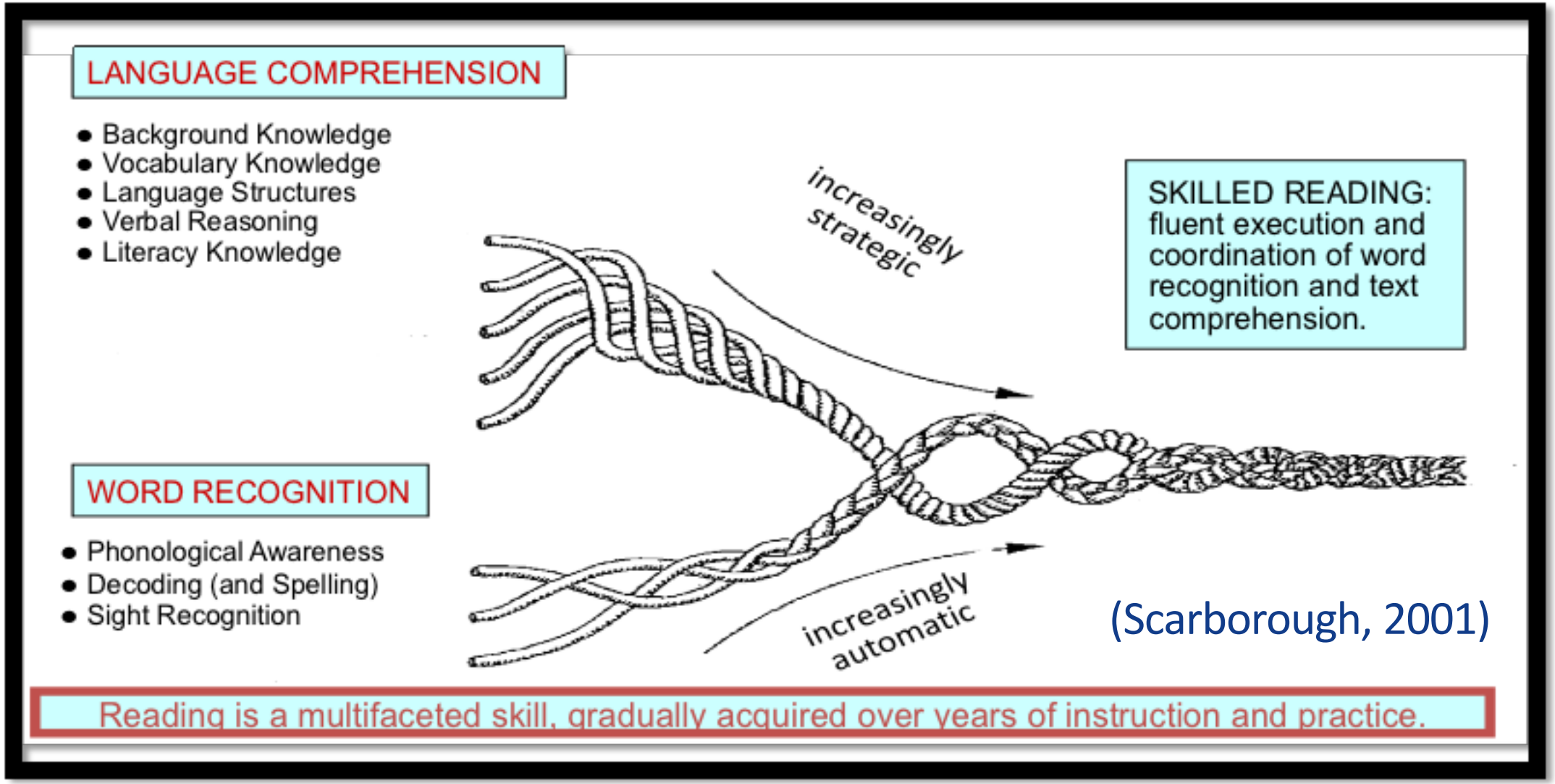
National Reading Panel

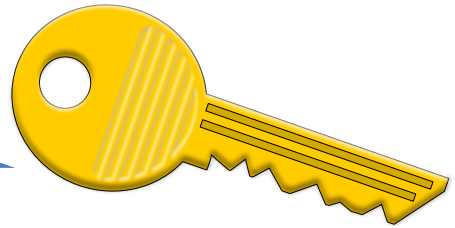
Findings from reviewing over 100,000 studies

<u>Teach Students</u>:

1) How to break words apart, notice & manipulate sounds (phonemic awareness)
2) That letters represent sounds, sounds blend into words (phonics)
3) Oral reading skills (guide and model fluency)
4) Vocabulary and background knowledge
5) Comprehension strategies

All students must be taught all skills…
some students NEED more precise, intensive instruction



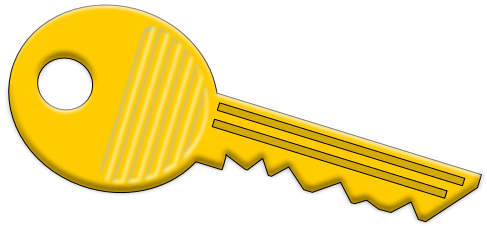


Let's Talk Dyslexia

Key Point to Remember:

"Dyslexia may be the most common neurobehavioral disorder affecting children…ranging from 10% in clinic- and school-identified samples to 17.5% in unselected, population-based samples."

(Lyon, Shaywitz, & Shaywitz, 2007)



Let's Talk Dyslexia

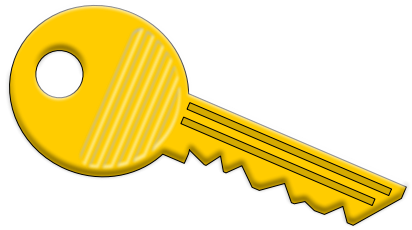
Key Point to Remember:

We can determine with > 90% accuracy whether or not a kindergartner will be in the bottom 10% of readers in 2nd grade by looking at:

phonological awareness
semantics (vocabulary)
orthographic knowledge (alphabet)

(Wagner, 2001)

Let's Talk Dyslexia



Key Point to Remember:

Students get most of their reading instruction in regular education classrooms, even when a Specific Learning Disability (SLD), such as Dyslexia, is identified

Neuro-imaging lets us watch brains in action

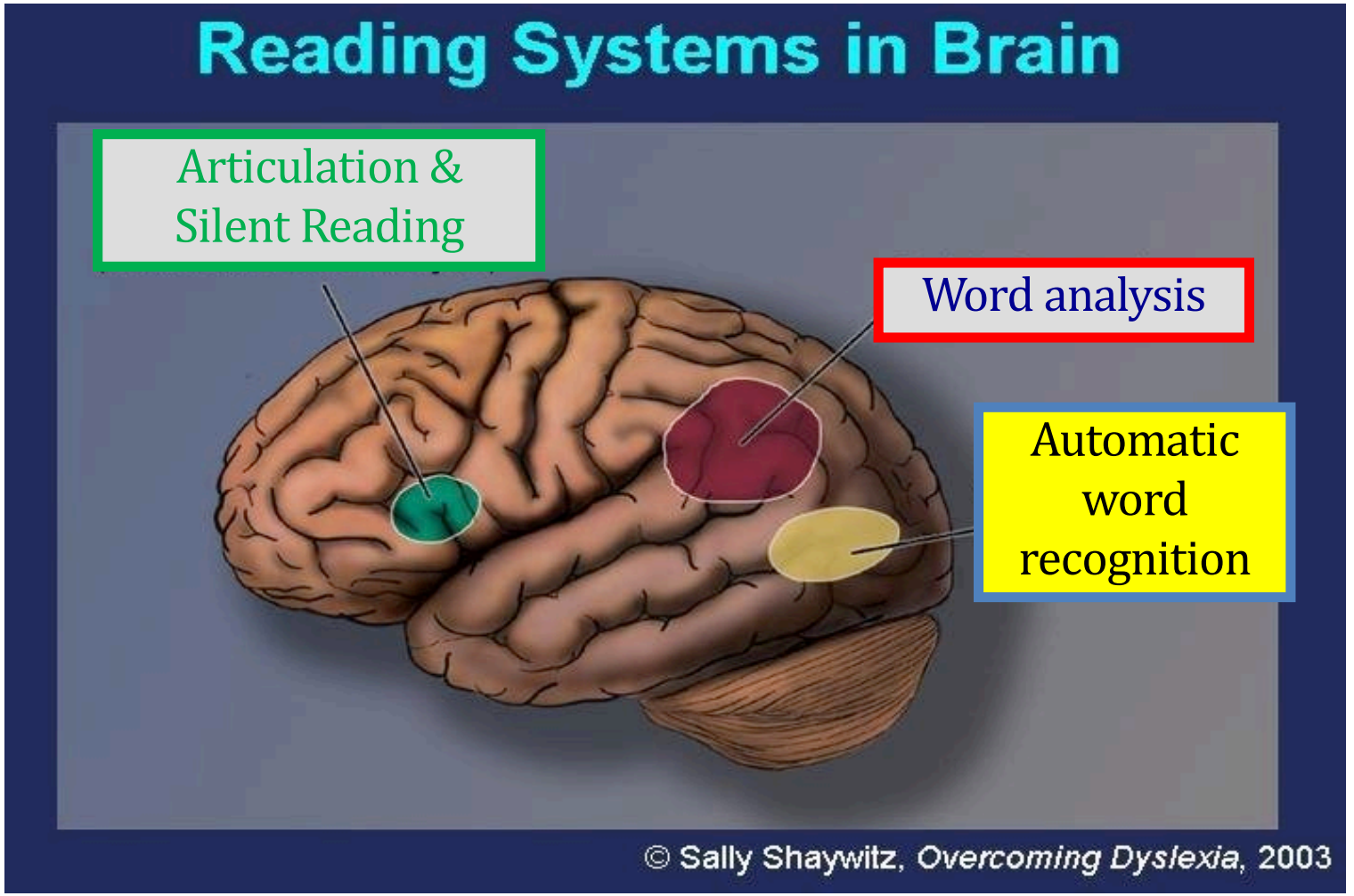
fMRI = functional MRI

Brain activity can be measured during specific tasks in children and adults

Let's Talk Reading: fMRI demonstrates differences in Dyslexia

Skilled readers develop automatic word recognition using an area in the back, left area of the brain.

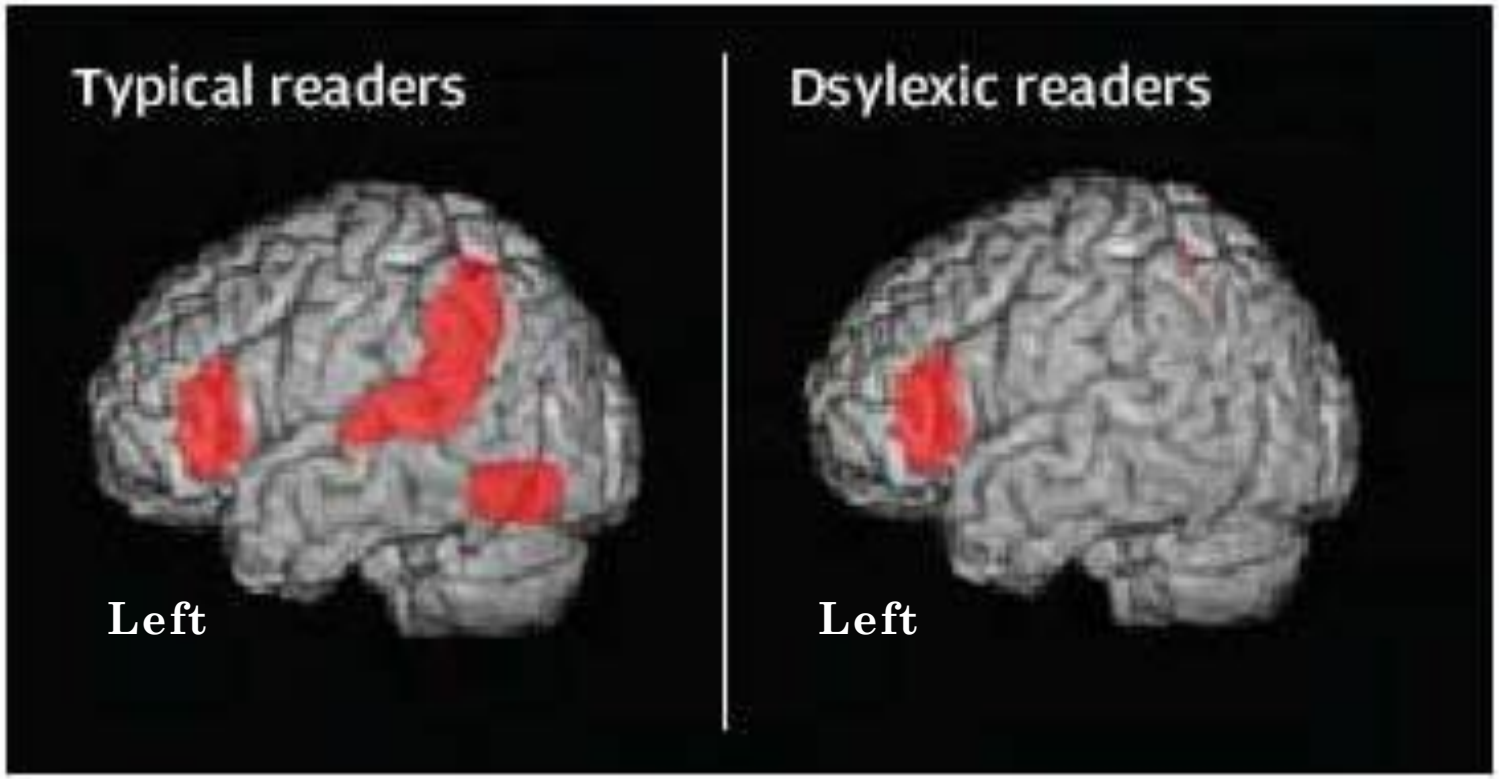
Dyslexic readers struggle to develop connections and strengthen areas needed for fluent reading with good comprehension.



The Neurology of Reading & Dyslexia

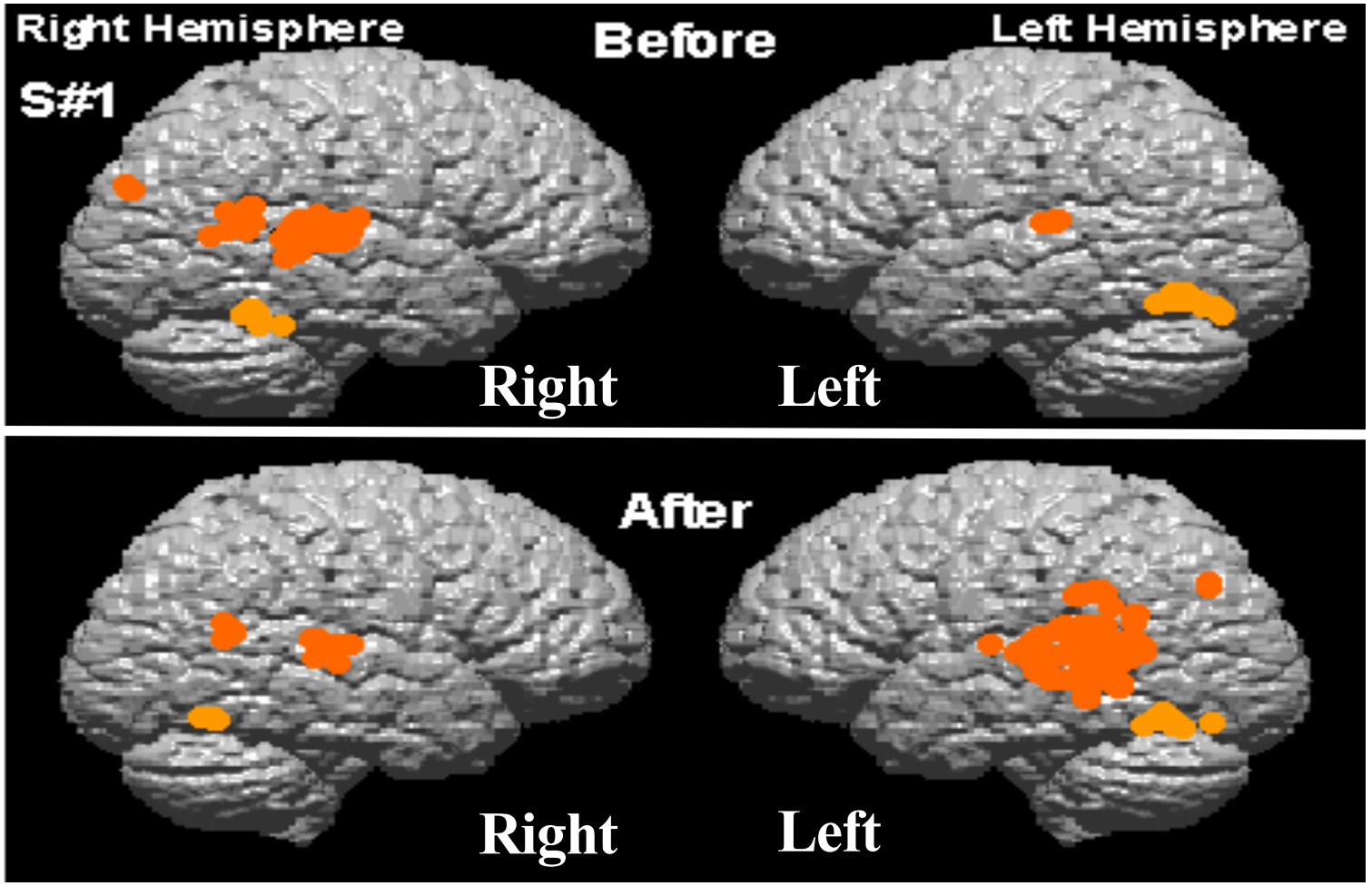
1) A *core deficit* relates to the brain's inability to process the sound-symbol connections of written language
2) A *second deficit* relates to problems with developing automatic processing of written words
   - Some students have both deficits (known as *double-deficit dyslexia)*
   - Having either or both deficits makes *effective and efficient* classroom instruction especially crucial for students with dyslexia

If left untreated, dyslexic readers rely on less efficient areas of the brain



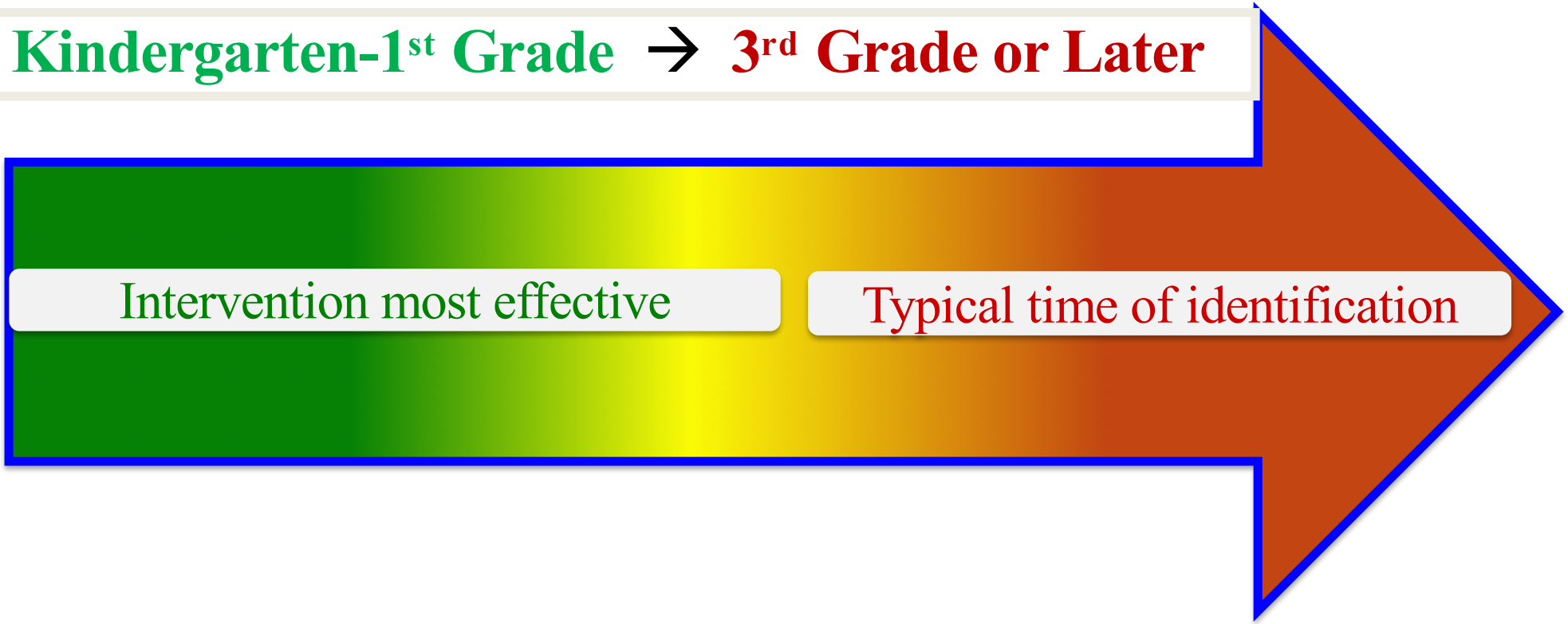
Images courtesy of Eden, G. Georgetown University

Brain changes before & after effective reading intervention



The Dyslexia Paradox

Kindergarten-1st Grade → 3rd Grade or Later



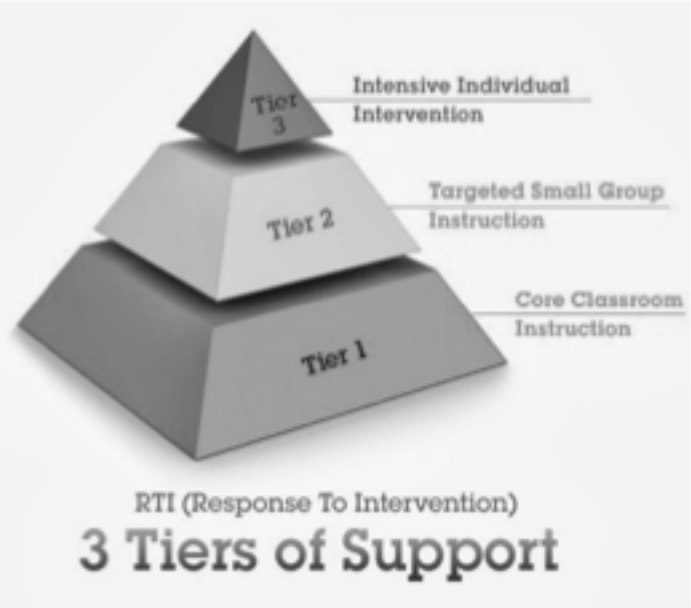
(Ozernov-Palchik & Gaab, 2016).

A new approach to Special Education eligibility law: Response to Intervention (RtI)

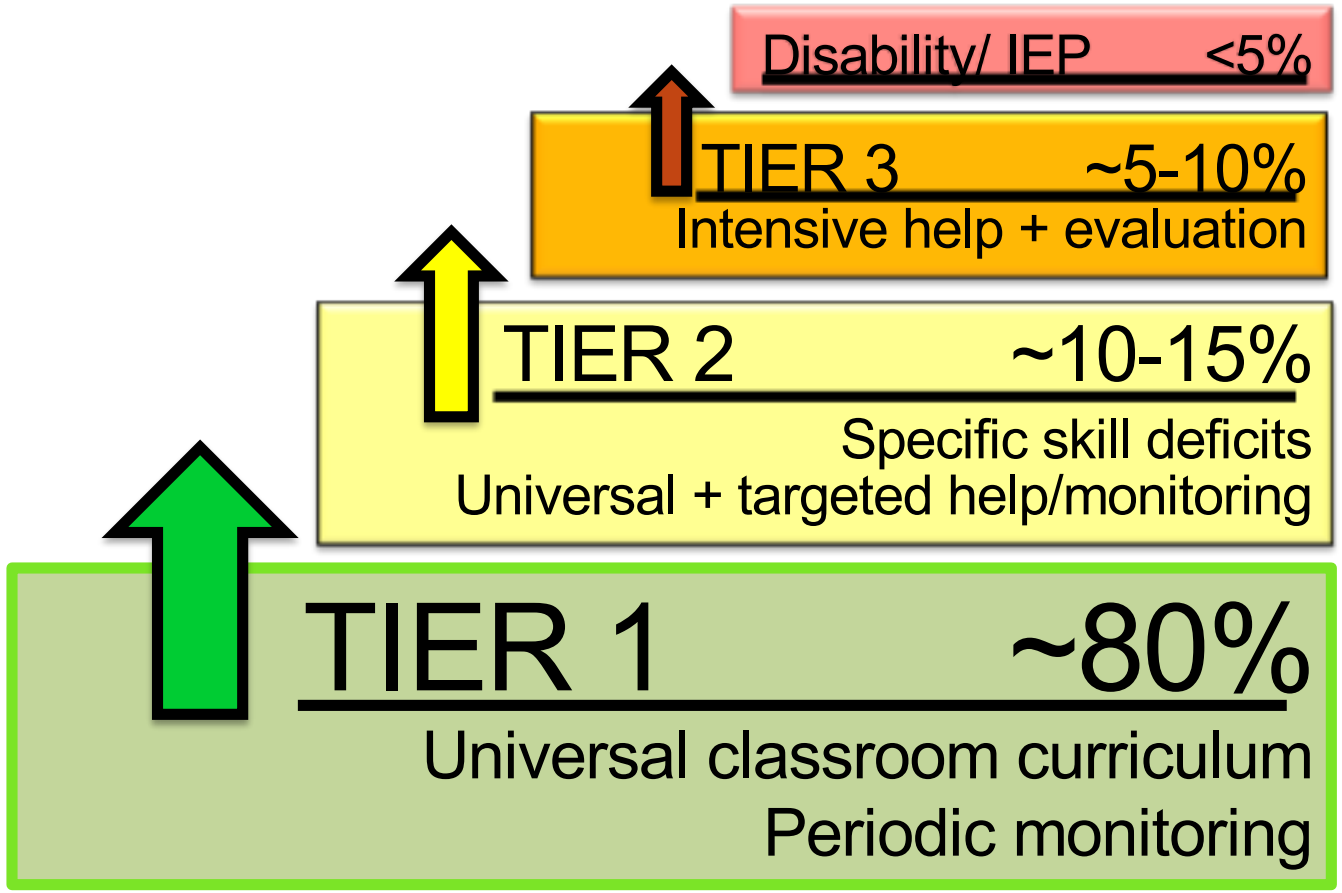
- Evidence-based universal reading instruction for all students

  (Requires Strong Tier 1 Teaching)

- Skills-based progress monitoring
- Goal: early intervention before/instead of a disability label
- Very promising when implemented well
- Falls short when partially or ineffectively implemented



Response to Intervention (RtI) by the numbers

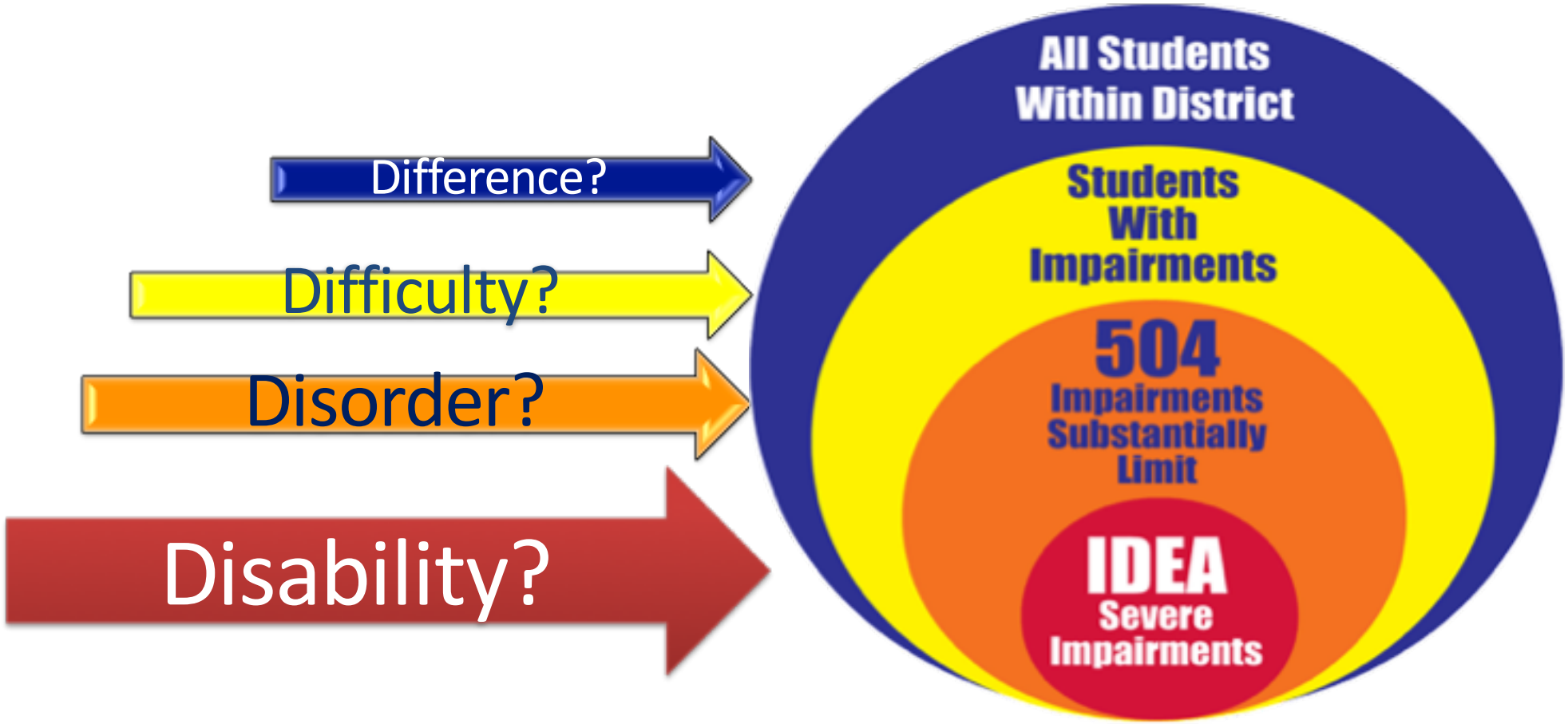


Increasing instructional intensity.

More frequent monitoring of student progress.

Few students should ever qualify for special education.

Like many other conditions, reading problems range from mild to severe



Myths *justify* maintaining barriers to evidence-based instruction

- ✓ Just need books in the home, need more minutes of reading
- ✓ Just need to try harder / be motivated
- ✓ Just a rare condition, a medical diagnosis
- ✓ Just the poor kids / language poverty
- ✓ Just lazy kids / lazy parents
- ✓ Just late bloomers / slow learners
- ✓ Just seeing words backwards

Joint Policy Statement: Learning Disabilities, Dyslexia, and Vision

"While vision problems can interfere with the process of learning, vision problems are not the cause of dyslexia or learning disabilities."

- American Academy of Pediatrics
- American Academy of Ophthalmology
- American Association of Pediatric Ophthalmology & Strabismus
- American Association of Certified Orthoptists

(Handler, et al., 2011)

Why have WI students fallen farther behind?

Multiple Factors Impact Reading Outcomes

- Clearly not all factors are controlled by educators, but failing to accept reading science creates outdated and unacceptable barriers to improving reading outcomes.
- Downplaying scientific evidence: WI State Reading Association (WSRA) adds quotation marks every time the word "dyslexia" is mentioned. We can infer that those quotations mean:

  "Dyslexia, if it even exists, isn't a real problem."

- Just as global warming naysayers continue ignoring and downplaying scientific evidence, some will continue avoiding the truth about reading science.

  "I don't think there is a problem… and if there is a problem, it is small… and if it is a big problem, it would be too hard to fix… and in any case it is not my responsibility."

- That type of response does not change the facts.

Allowing Opinions to Alter Facts?

In written testimony, Wisconsin State Reading Association (WSRA) opposed Assembly Bill 584 based on the following statements:

1) "There is no agreed-upon definition of 'dyslexia'"

   Not true, there are national standards, and the Office of Special Education & Rehabilitative Services has clarified Dyslexia is a Specific Learning Disability in Reading

2) "The costs for DPI to develop a scientifically based, normative screening device will be prohibitive"

   Not true, 2011 WI Act 166 now directs, funds early screening

Despite strong supporting evidence, use of phonics remains taboo in some WI Schools

Menominee, WI – 2018
Parent Handout Sent Home with Students

- Phonics instruction builds connections between spoken & written words in the brain
- Connections are built in stages:
  - Associate individual letters with sounds
  - Blend sounds to form words
  - Learn patterns needed to read more challenging letter combinations

Dyslexia and Specific Learning Disabilities

This guidance document is intended to clarify the relationship between dyslexia and specific learning disabilities (SLD) as defined by state and federal special education law. Recent federal Office of Special Education Programs (OSEP) guidance specific to this topic is also integrated within this document.

There is nothing in state or federal law that prohibits the use of the term dyslexia or other related terms such as dysgraphia and dyscalculia in IDEA evaluations, eligibility determinations, or Individual Education Program (IEP) documents. IEP teams may include any relevant information in special education documents.

Politics Interfering in Teacher Licensing Policy?

Arguments used in attempts to undermine the Foundations of Reading Test (WI-FoRT)

- *Some* districts struggle to find qualified teachers
- *Some* colleges haven't done enough to teach teachers how to teach reading
- *Some* teachers need more time to pass the reading test

Will DPI allowing backdoor emergency teacher licensing exceptions ultimately help students, teachers or school districts?

- Without making sure all new teachers have adequate knowledge to pass WI-FoRT, we cannot expect to see the benefits realized by other states.
- By failing to publish WI-FoRT results, DPI doesn't allow future teachers to accurately compare schools of education.

But Isn't There Too Much Testing?

Yes, of a certain kind:

No Child Left Behind testing:

- Assesses school performance, doesn't identify needs of individual students
- Does not guide instruction
- Has no oral reading on the tests
- Often given at end of the year
- Very expensive and time-intensive
- Data presented to parents in confusing statistics

But Isn't There Too Much Testing?

Yes, of a certain kind:

- Running records and other crude benchmarks:

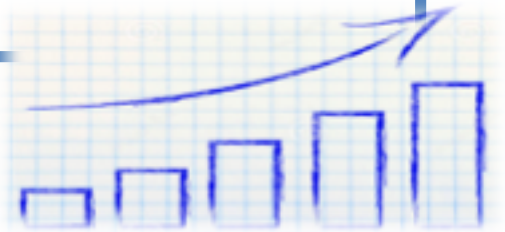
  e.g., Fountas & Pinnell benchmark assessments
  based on whole language approach to instruction

- "All is well because he is at level G"

  --But, what does that mean for planning instruction?

  --What skills are mastered at level G?

But Isn't There Too Much Testing?



Yes, of a certain kind:

Inappropriate implementation of RtI:

- Inadequate rates of progress (must catch students up to their peers)
- Poorly targeted instruction (must avoid needing to bounce in and out of intervention)
- Choosing tests that exclude phonics (e.g., 2 versions of Star Test)

Adding more "testing" is not the answer, but choosing evidence-based assessments to guide instruction is important!

Teachers need tools to efficiently/effectively identify students at risk

Screening should look for deficits in:

- Phonemic awareness (e.g., Subtest of Comprehensive Test of Phonological Awareness)
- Rapid Automatized Naming (e.g., Wolf and Denckla's RAN/RAS Test)
- Pseudo word decoding (e.g., Woodcock Johnson IV)
- Vocabulary (e.g., Peabody Picture Vocabulary Test)

NOTE: Screening for specific components will help teachers understand needs of individual students. Better choices than Wisconsin's original screener PALS are readily available: AIMSWEB, DIBLES, STAR (with phonics test).

Support Teachers' to Help Students Learn to Read

Provide all WI educators access to:

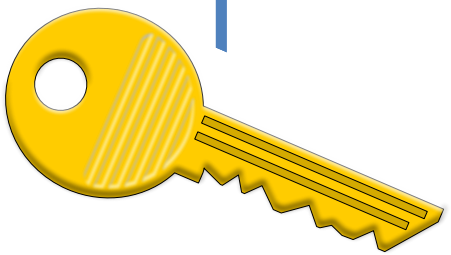
- High quality screening (WI Act 166)
- High quality progress monitoring (quick, inexpensive, useful in guiding instruction and determining who needs additional support and/or evaluation)
- Comprehensive evaluations, as was the norm until recently, when RtI isn't effective for individual students
- High quality pre-service training & professional development
- Normative data provided to parents in understandable terms

Examples of evidence-based instruction / intervention

- Orton-Gillingham method:
  - Multi-sensory, structured language-based approach including all 5 components of effective instruction
  - Originally designed for severe dyslexia, foundation of many programs.
- Project Read:
  - Designed for regular education classrooms.
  - Uses phonics, emphasizes structures used in reading and writing.
- Wilson method:
  - A 12-step program originally developed for adults, but now has a version for elementary age children.

Examples of evidence-based instruction & intervention

- Singerland method
  - Designed for group instruction of children in first to third grades.
- Direct Instruction
  - Structured, sequential skill development, uses high tech video media.
- RAVE-O:
  - Focuses on Fluency by weaving together phonological decoding skills, work attack skills, common letter patterns, and nuanced understanding of what words mean
  - Goal: achieve automatic processing of written words



Key Points to Remember:

- ❑ Dyslexia is common (but could be less common with effective core reading instruction and early intervention).
- ❑ We can predict who will struggle with 90% accuracy (if we screen and implement before kids fail).
- ❑ Most students with Dyslexia receive the majority of their reading instruction in in the regular education classroom (so all teachers must understand the science of effective instruction).
- ❑ What WI has been doing is letting many students fall behind peers in other states.

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