

# An Introduction to The Science of Reading

5.22.20

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## Definition

“The body of work referred to as the “science of reading” is not an ideology, a philosophy, a political agenda, a one-size-fits-all approach, a program of instruction, nor a specific component of instruction. It is the emerging consensus from many related disciplines, based on literally thousands of studies, supported by hundreds of millions of research dollars, conducted across the world in many languages. These studies have revealed a great deal about how we learn to read, what goes wrong when students don’t learn, and what kind of instruction is most likely to work the best for the most students.” – Dr. Louisa Moats

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## Why?

Children who start low stay low

Trouble with early word reading skills leads to

- less time spent reading
- slow vocabulary growth
- missed opportunities to practice comprehension strategies
- negative attitudes toward reading

**The best solution to the problem of reading failure is to allocate resources for early identification and prevention.**

Torgesen 1998

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## Why?

### Percent at Minimum Expectation in K

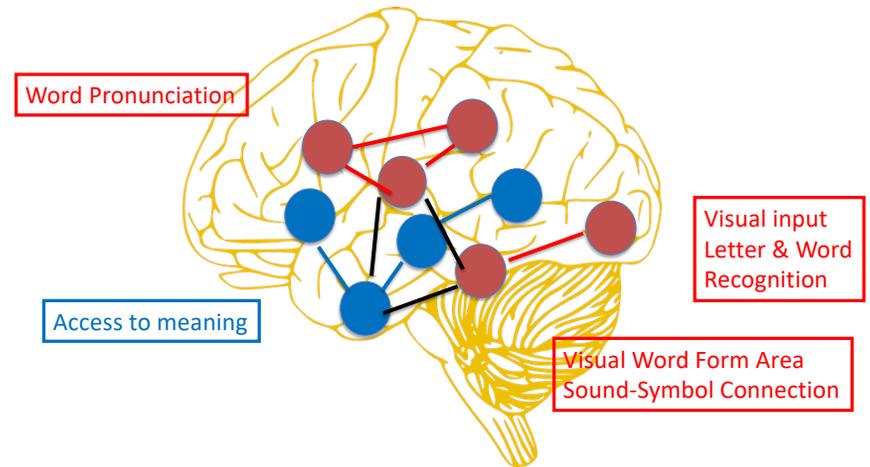
	Beginning of Year	End of Year
District A	39%	81%
District B	38%	90%
Our District	54%	62%

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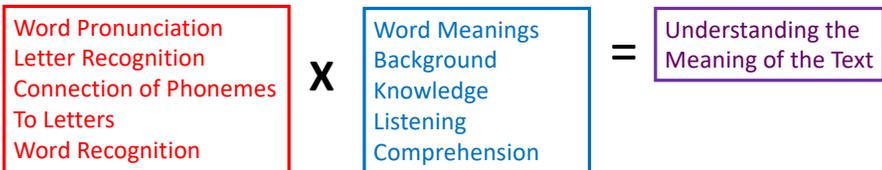
# The Science of Reading

1. How Reading Works in the Brain
2. What to Teach
3. How to Teach
4. Structures to Implement (MTSS)

# 1. How Reading Works in the Brain

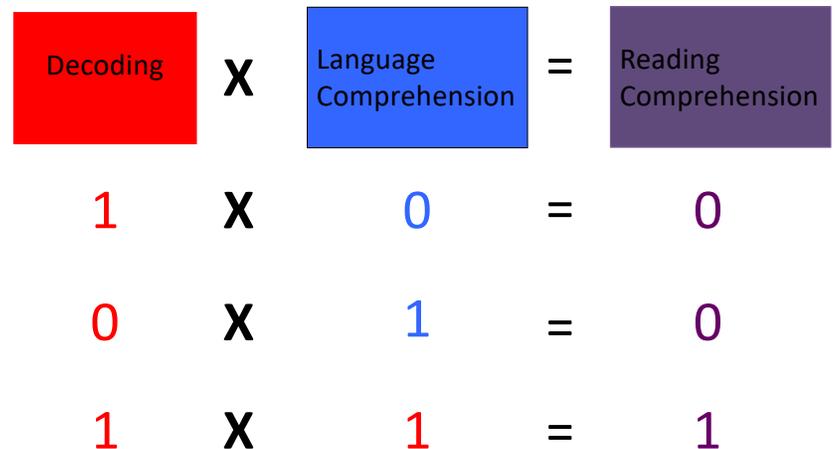


# 1. How Reading Works in the Brain

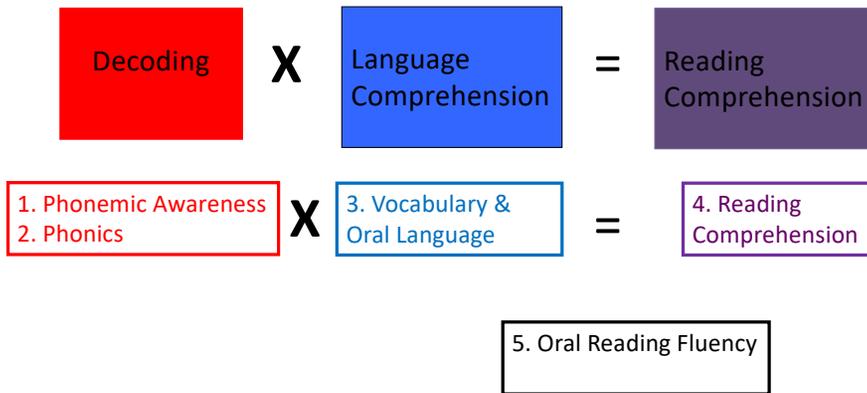


# 1. How Reading Works in the Brain

The Simple View of Reading



## 2. What to Teach



Gough & Tunmer, 1988

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## 2. What to Teach: The Essential Components of Early Literacy

Skill	Definition
Phonemic Awareness	Noticing, thinking about and working with phonemes (the smallest units of spoken language)
Vocabulary & Oral Language	Understanding the meaning of words we speak, hear, read, and write
Phonics	Knowing relationships between sounds (phonemes) and letters (graphemes)
Oral Reading Fluency	Reading connected text accurately, fluently, and for meaning
Reading Comprehension	Gaining meaning from text

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## 3. How to Teach

Explicit	Systematic	Sequential
New skills are directly modeled	Consistent instructional routines are used to guide students to correct responses	Skills are taught in order from easier to harder; Pre-requisites are taught first
Students are guided to the correct response	Instructional time is carefully allocated to maximize time on task	Component or foundational skills are taught directly to support higher-order skills
Error response includes immediate corrective feedback	Cumulative review	Intentional sequence within and across lessons; within and across grades
Skills are practiced to mastery and automaticity		

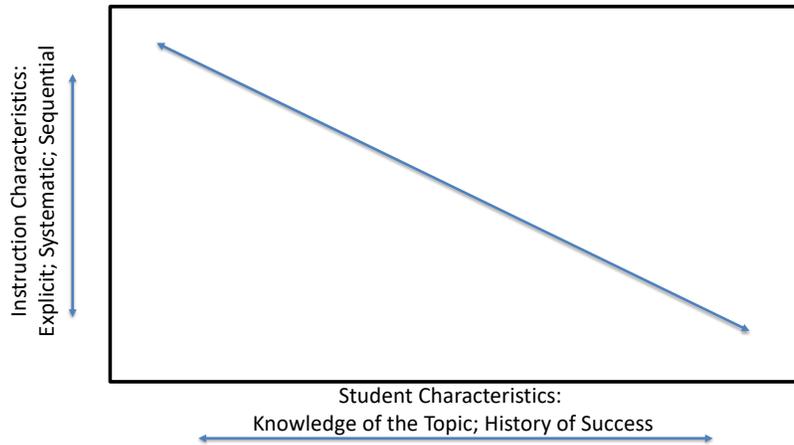
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Skill Area	Structured Literacy	Typical Literacy Practices
Phonological Awareness	Emphasis on the sounds in spoken language distinct from and prior to phonics instruction; Phoneme awareness used as the starting point for print	Letters used as the starting point for print; Reading treated as a visual skill; Confusion of phonemic awareness and phonics; Avoidance of segmenting spoken words
Phonics & Spelling	Intentional instruction in letter-sound combinations; Sequenced from easier to harder for reading and spelling; Application of word reading in print	Taught whole to part (analytic) incidentally as students make mistakes in text or by analogy (word families); Mini lessons responding to student errors
Vocabulary & Oral Language	Oral language as the reference point for print; Books used for reading aloud are more challenging than those students read independently; Scripted teacher dialogue	Modeling reading aloud from the leveled books students will read; Nondirective questioning and discussion
Text Reading Fluency	Young students read text that is controlled to include only those phonics patterns that have been explicitly taught; Fluency building only after accuracy; High degree of teacher-student interaction with immediate corrective feedback	Use of leveled or predictable texts that are not controlled for decoding difficulty; Error response focuses on picture cues or the use of context to determine words; High degree of independent silent reading; Miscue analysis
Reading Comprehension	Background knowledge, text structure, and strategies overtly modeled and practiced in a planned progression	Emphasis on teacher modeling (think aloud); Activities such as choral reading, shared reading and guided reading; Student book choice

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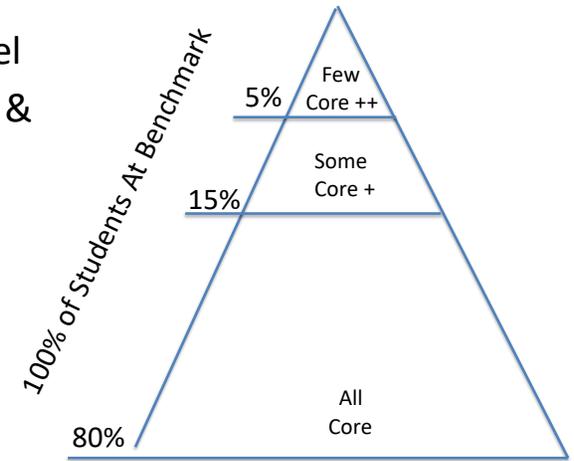
### 3. How to Teach

Anita Archer – Explicit Instruction – “not an either or – but a when”



### 4. Structures to Implement (MTSS)

3-Tiered Model Of Prevention & Intervention



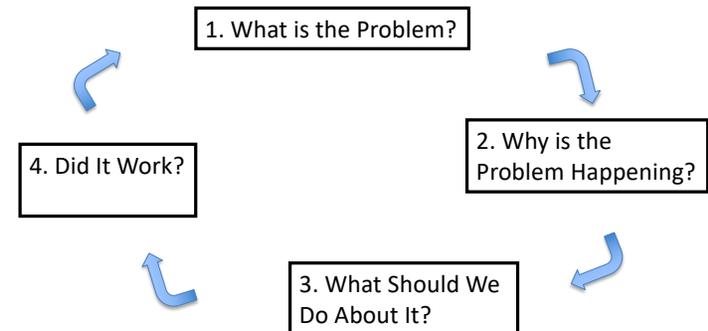
### 4. Structures to Implement (MTSS)

Assessment System

Screening Which students and systems are at risk?	Diagnostic Exactly what should we teach next?
Progress Monitoring Is it working?	Outcome Evaluation Did it work?

### 4. Structures to Implement (MTSS)

Collaborative Problem Solving



## Conclusions

- All children deserve to learn to read
- What is known about how children learn to read can inform our work
- What and how we teach really matters
- A focus on prevention will ensure more children learn to read and reduce the need for intervention

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## Next Steps

- Build our knowledge
- Examine what we teach and how
- Explore our systems of supporting students

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Presentation sourced by Stephanie Stollar  
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