

Science of Reading Myths and Misconceptions



Michelle Elia, Ohio Literacy Lead

June 2023

Today's Presenter & Padlet Resources



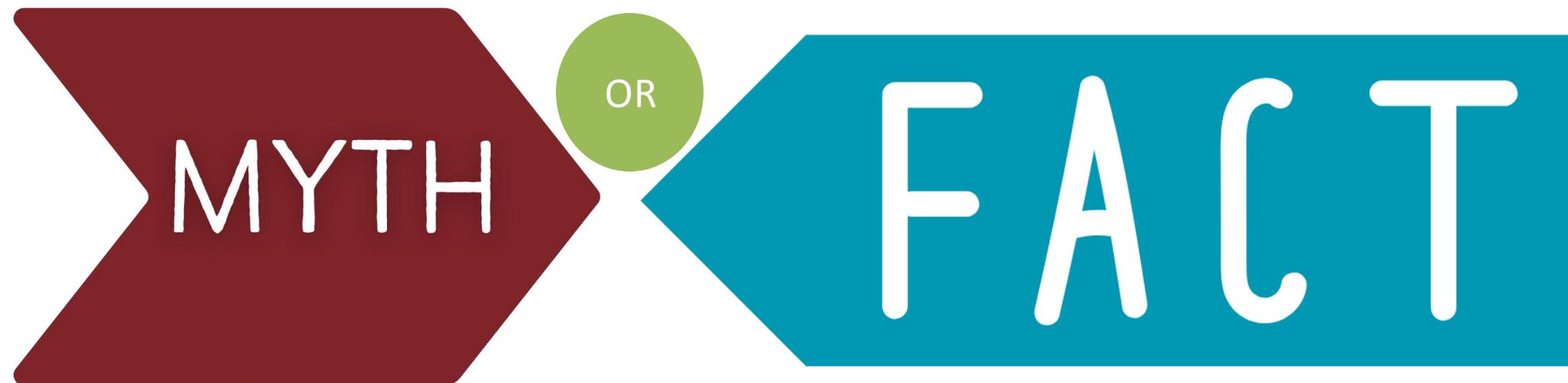
Michelle Elia
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Today's Objectives

Debunk common myths and misconceptions about reading instruction.

Examine myths and misconceptions about the science of reading.



Part 1: Myth Busting in Reading

Debunk common myths and
misconceptions about reading
instruction



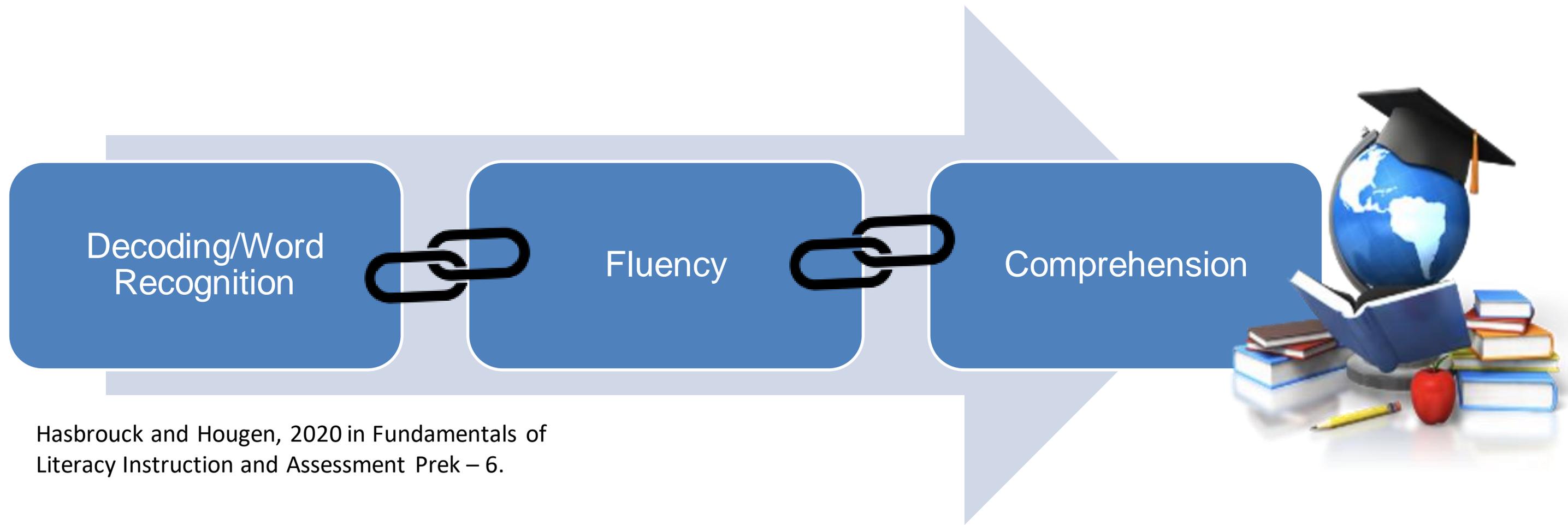
Activity

Can you spot the reading myths?

	Myth or Fact?
Explicit code based instruction is beneficial for all children and prevents reading difficulties.	
Learning to read is a visual process. Colored overlays, special fonts, and vision therapy are especially helpful for struggling readers.	
Learning to talk is natural, but learning to read is not. Reading must be taught.	



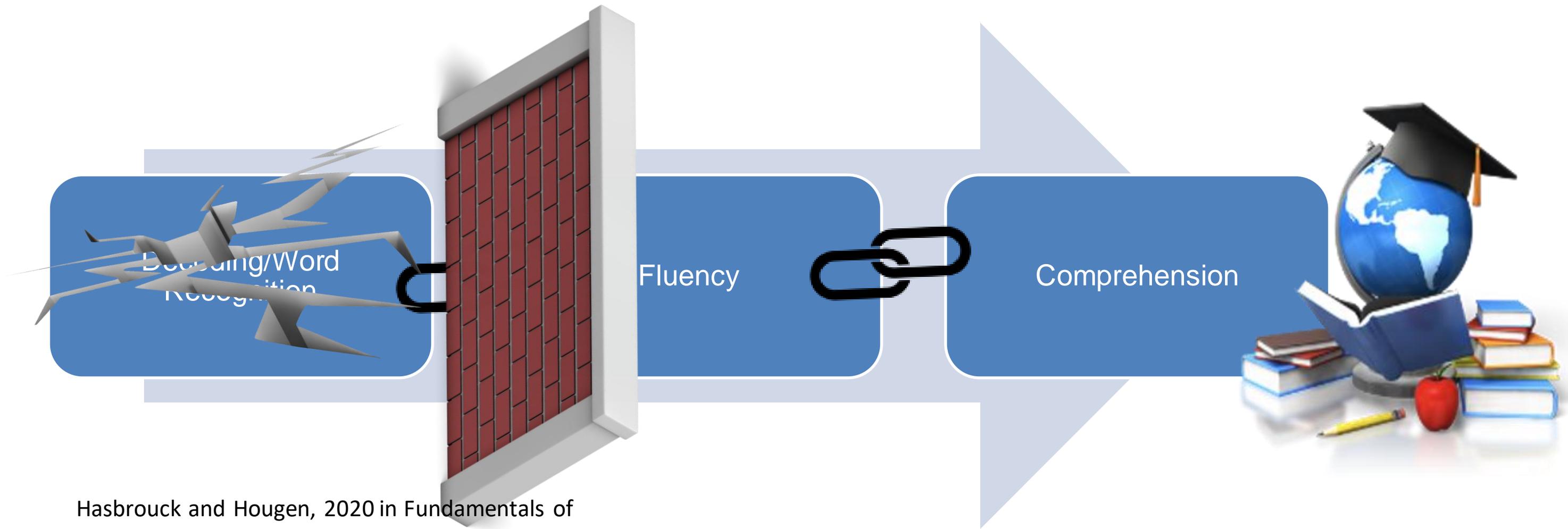
Comprehension is the Outcome, Fluency is the Link



Hasbrouck and Hougen, 2020 in Fundamentals of Literacy Instruction and Assessment Prek – 6.



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Learning to Read is Not Visual

- Reading is phonological, orthographic, and meaning based
- The pathway to connect these regions of the brain must be built through instruction.
- Good readers connect letters to sounds, and then meaning to facilitate automaticity of reading (sight words).

FACT

Frontal lobe

Parietal lobe

Access to Phonology (Pronunciation and Articulation)

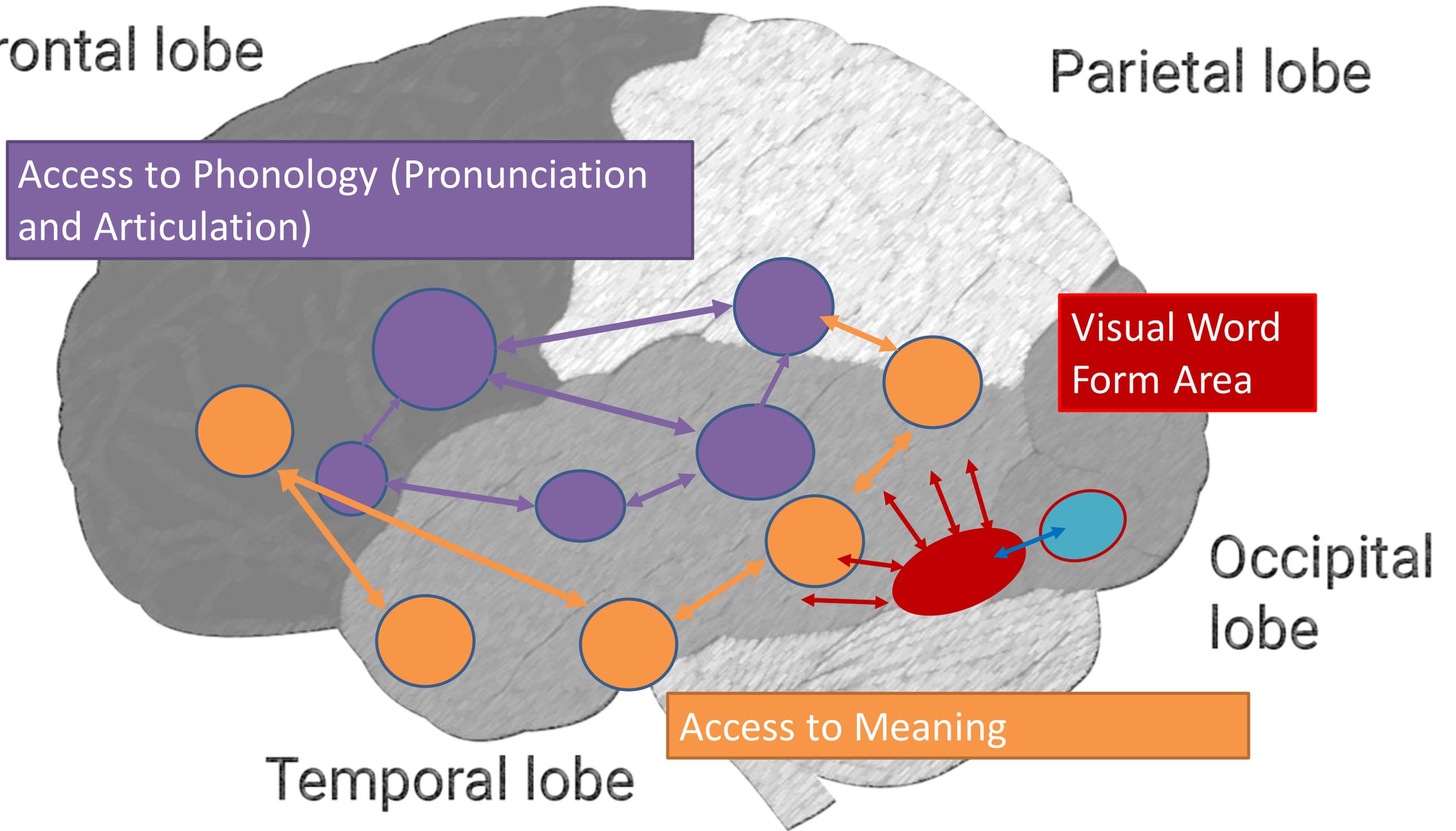
Visual Word Form Area

Occipital lobe

Temporal lobe

Access to Meaning

cerebellum



Activity

Can you spot the reading myths?

	Myth or Fact?
Phonics instruction interferes with reading comprehension.	
There are many ways to learn to read, and all children learn to read differently.	
English is too irregular for phonics to be of value.	
Leveled texts at a student's instructional level are helpful for struggling readers.	

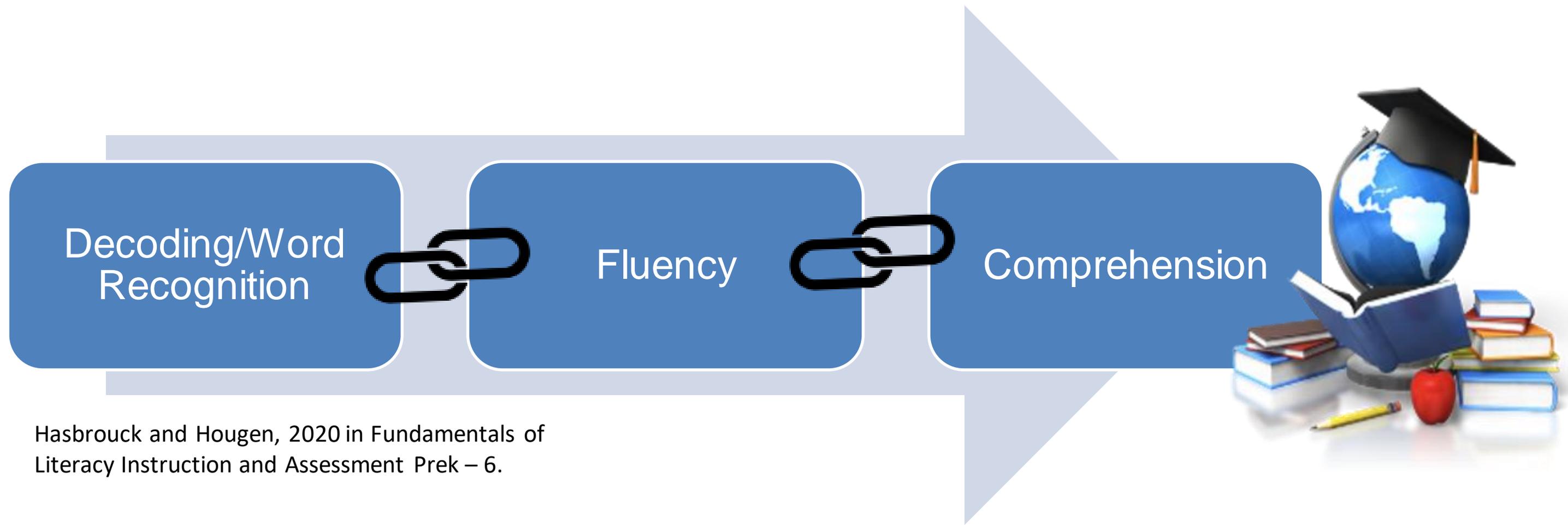


Comprehension is the Goal

- Phonics supports comprehension by allowing students to link printed words with oral vocabulary. (Perfetti & Hart, 2022)
- Phonics supports the development of fluent reading ability, which in turn frees up the child's mental resources to focus on the meaning of a text. (Perfetti & Hart, 2022)
- Children taught by a systematic phonics method made gains in text comprehension as well as in word reading and spelling. (Ehri et al., 2001)



Comprehension is the Outcome, Fluency is the Link



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Access to Phonology (Pronunciation and Articulation)

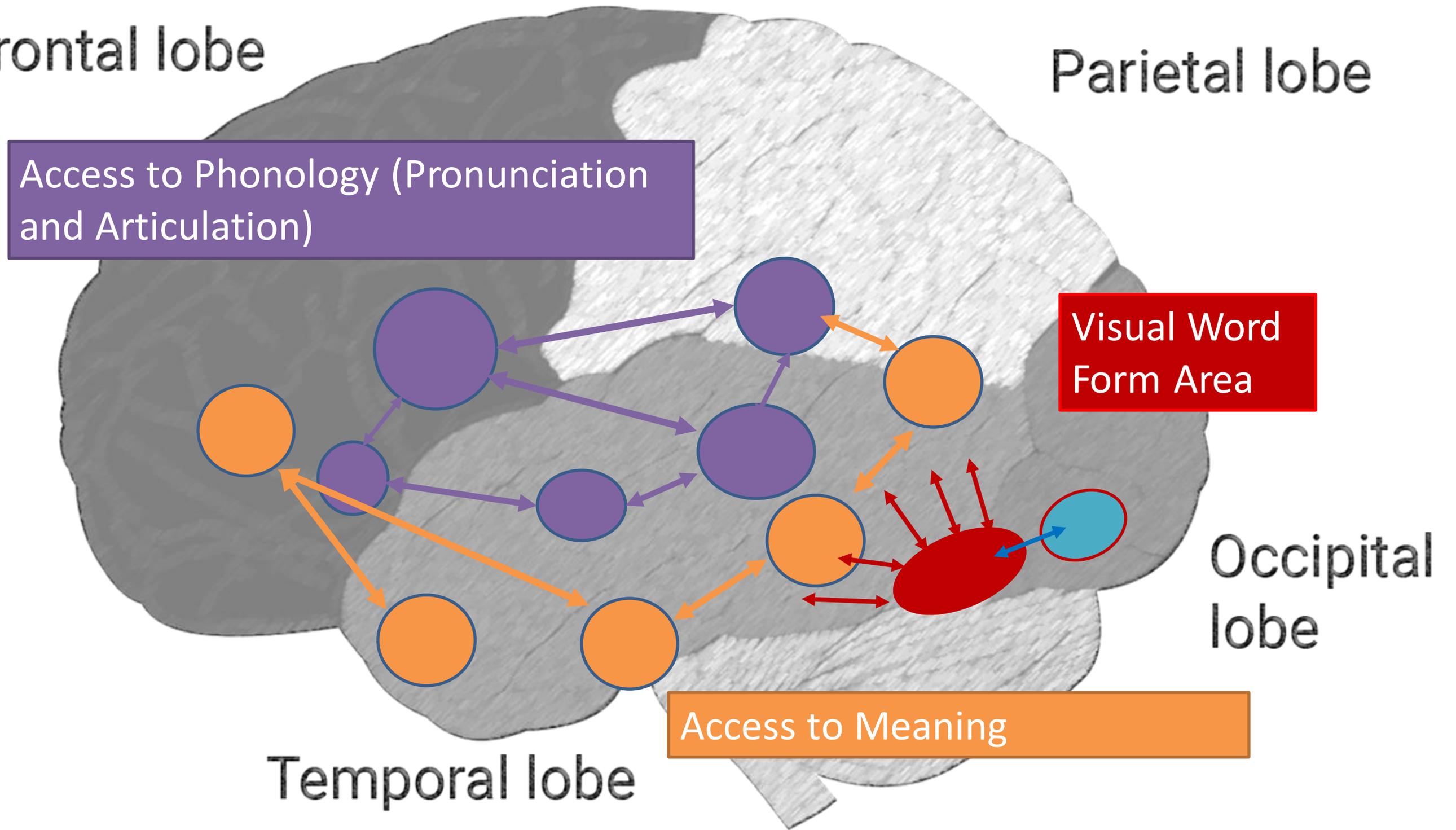
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The Reading Brain

FACT

“It is simply not true that there are hundreds of ways to learn to read... when it comes to reading we all have roughly the same brain that imposes the same constraints and the same learning sequence”

-Dehaene, 2010

English isn't Crazy! It's Complex!

- English orthography is complex
- More than 80% of monosyllable words are completely decodable, and many of the remaining are partially decodable (Share, 1995)
- Phonics instruction should extend beyond basic phonics to advanced word study (syllabication, etymology, and word study) to ensure students can read and spell multisyllabic words. (Moats, 2020 & Dehaene, 2009)

FACT

Follow the Evidence

No evidence backs up giving children texts to read at their level. In fact, students learn to read better when they are given challenging texts with scaffolding.

- Dr. Timothy Shanahan



Rigorous Texts & Struggling Readers

Recent research indicates that students actually learn more from **reading texts that are considered too difficult for them**—in other words, those with more than a handful of words and concepts a student doesn't understand. What struggling students need is **guidance from a teacher** in how to make sense of texts designed for kids at their respective grade levels—the kinds of texts those kids may otherwise see only on standardized tests, when they have to grapple with them on their own.

(Shanahan, 2018)



Part 2: Myth Busting in the Science of Reading

Examine myths and
misconceptions about the
science of reading.



Activity

Can you spot the Science of Reading Myths?

Myth or Fact?

The science of reading is a body of evidence from multiple fields of study, that should inform instructional practices and assessment.

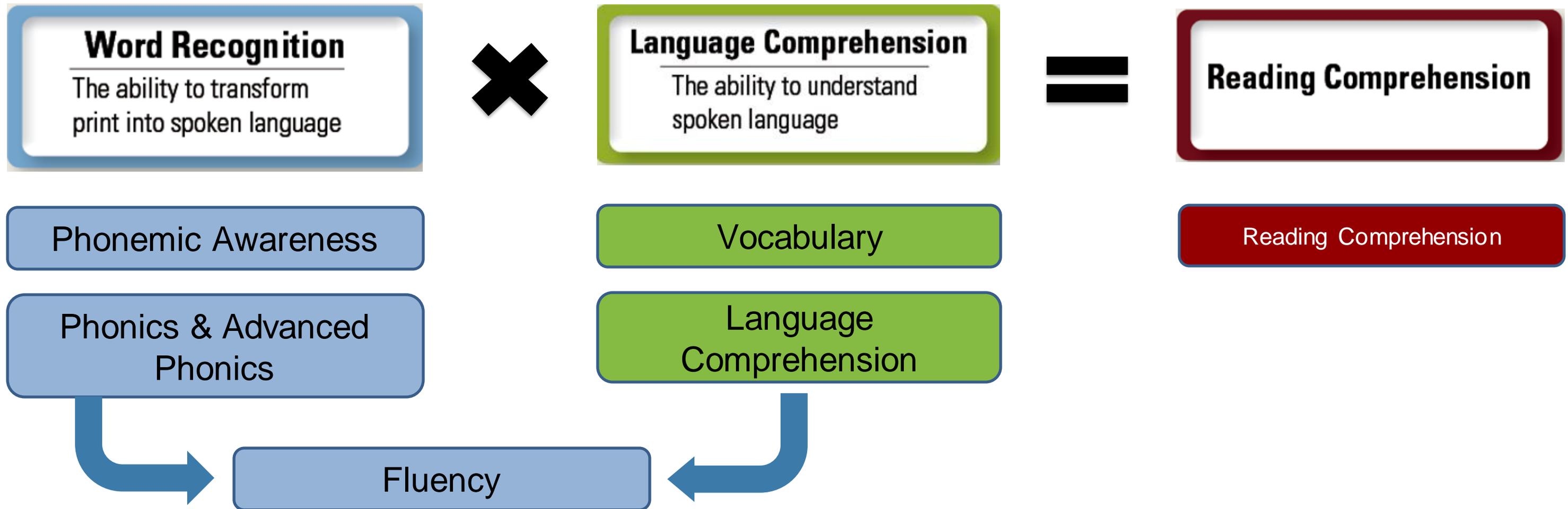
The science of reading aligned practices emphasize phonics only.

The science of reading is the same as structured literacy.

Strategy instruction is the best way to build reading comprehension.



5 Pillars of Reading and the Simple View



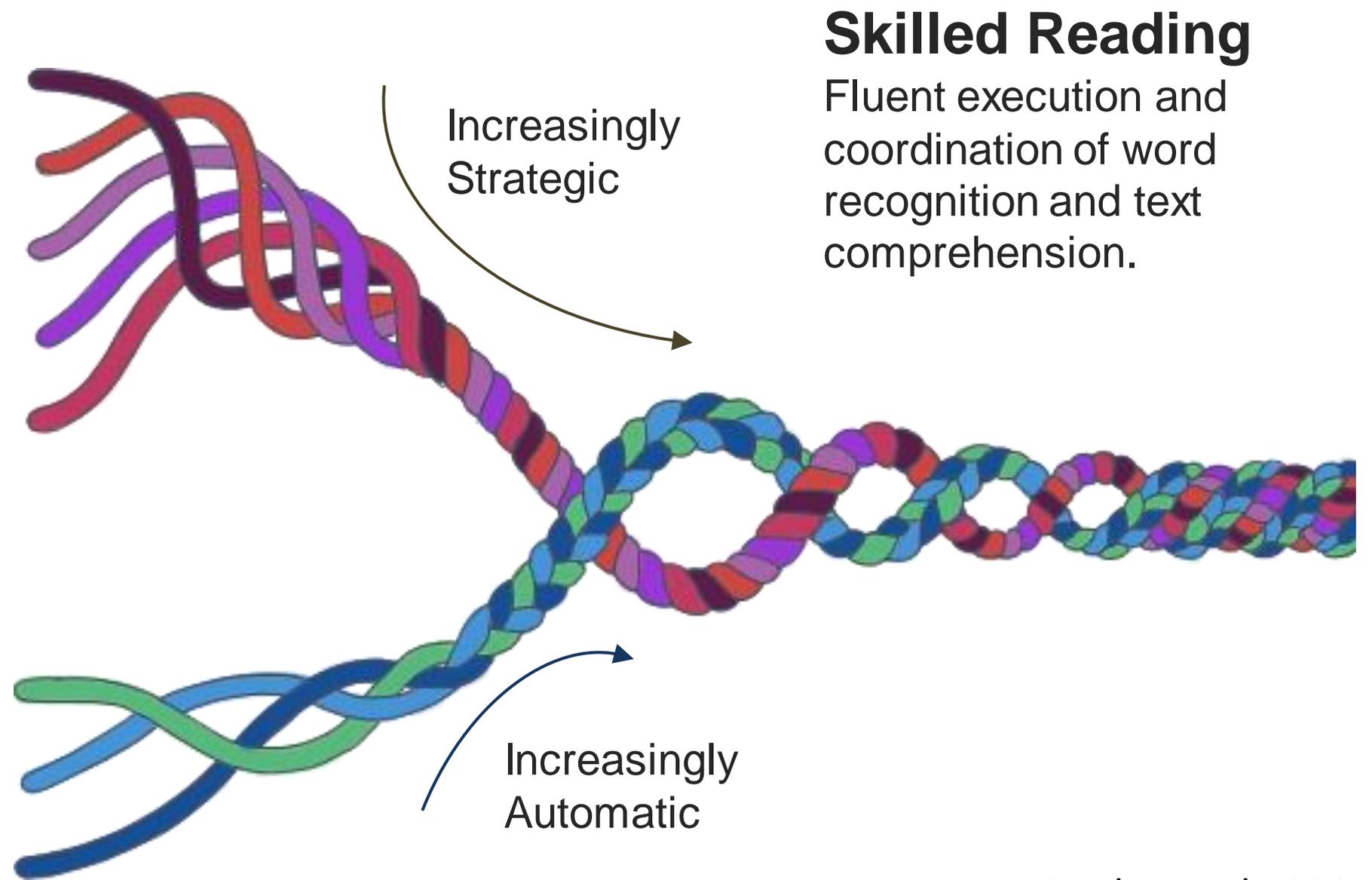
Scarborough's Reading Rope

Language Comprehension

- Background Knowledge
- Vocabulary Knowledge
- Language Structures
- Verbal Reasoning
- Literacy Knowledge

Word Recognition

- Phonological Awareness
- Decoding (and Spelling)
- Sight Recognition



Skilled Reading

Fluent execution and coordination of word recognition and text comprehension.

Scarborough, 2001



Why does phonics get so much attention?

- No comprehension strategy is powerful enough to compensate for the inability to read the words! – Dr. Joe Torgeson
- These practices have been neglected in balanced literacy instruction.
- Many current phonics programs are not systematic or explicit, but instead meaning based or embedded

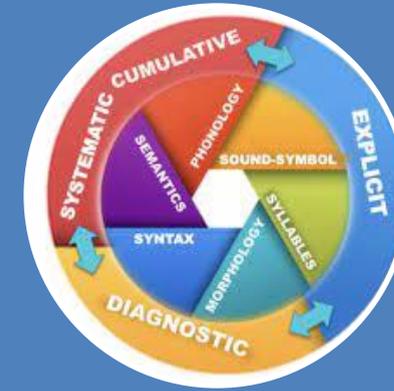
FACT



Clarifying Terms



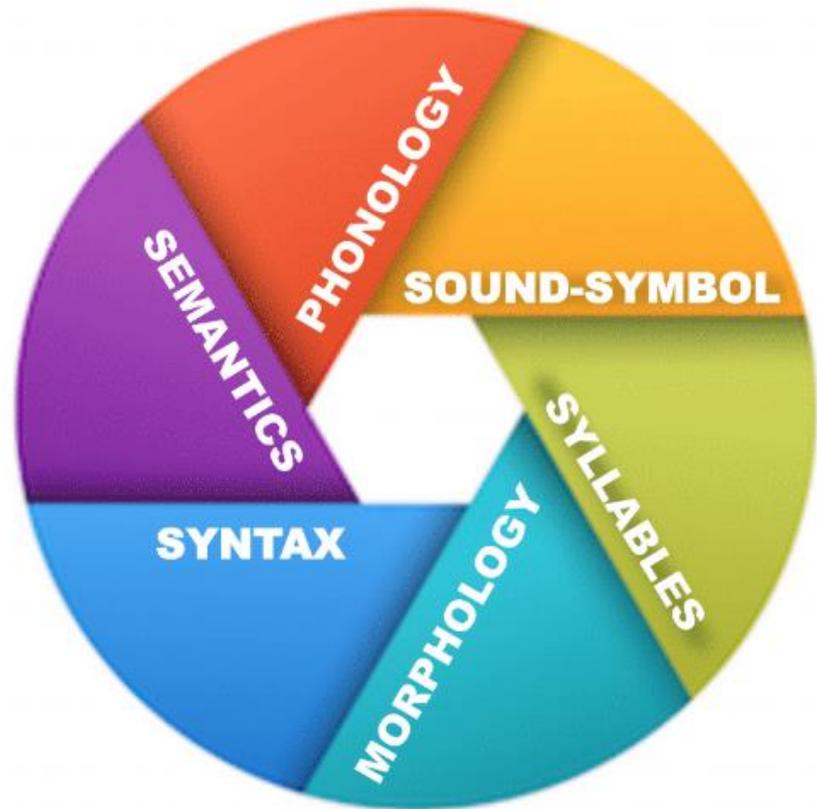
Science of Reading -
The Evidence Base



Structured Literacy -
The Practices

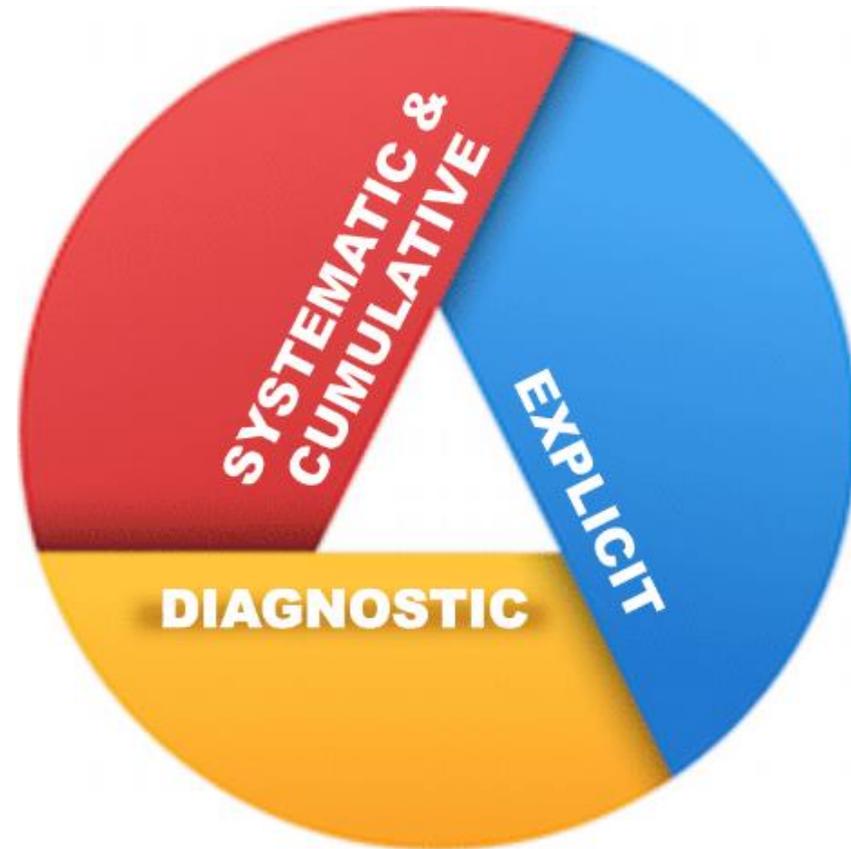


Structured Literacy



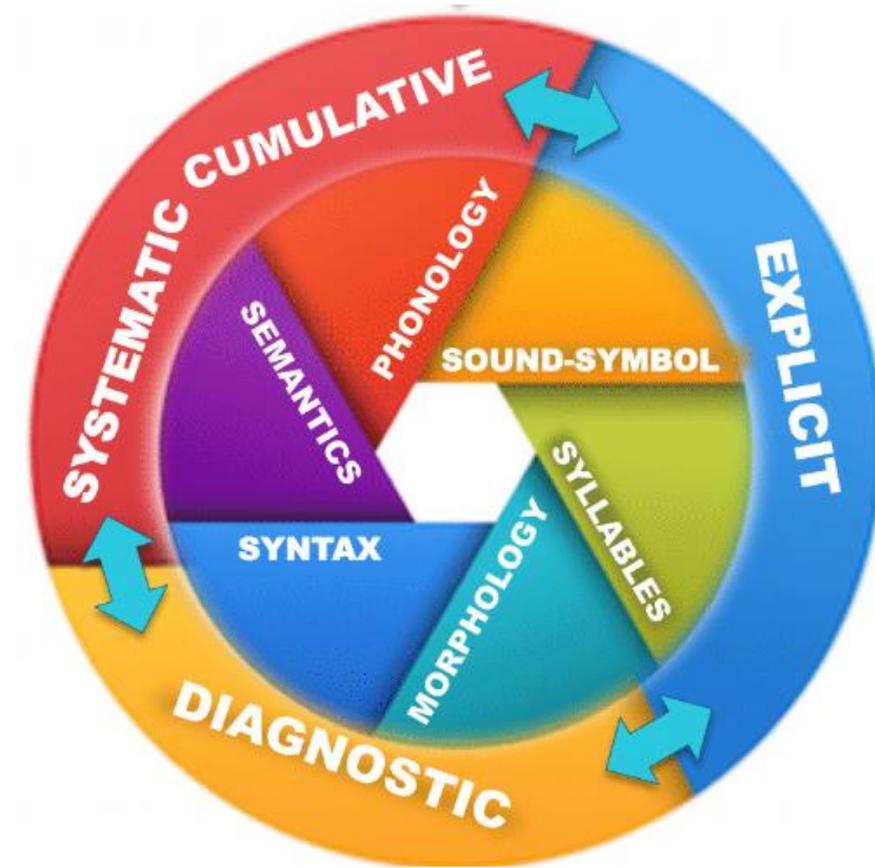
Evidence-based Elements

+



Evidence-based Teaching Principles

=



Effective Reading Instruction

What is Structured Literacy? Infographics by Carolyn D. Cowen (2016). <https://dyslexiaida.org/what-is-structured-literacy/>



Limitation of Strategies Instruction

Strategies, absent some level of knowledge, a purpose for engaging in the literary practice, and an identification with the domain or the purpose – will not take readers very far. *(Moje, 2011)*

Teaching reading strategies is a low-cost way to give developing readers a boost, but it should be a small part of a teacher's job. Acquiring a broad vocabulary and a rich base of background knowledge will yield more substantial and longer-term benefits. *(Willingham, 2007)*



Review - Comprehension is an OUTCOME

Comprehension occurs when the student:

- Can read the words accurately and fluently
- Understands the meaning of the words
- Has adequate background knowledge
- Focuses attention on critical content



(Anita Archer, 2020; Nagy, Anderson, 1984)



The Simple View of Reading

The Simple View of Reading

Word Recognition

The ability to transform
print into spoken language

X

Language Comprehension

The ability to understand
spoken language

=

Reading Comprehension



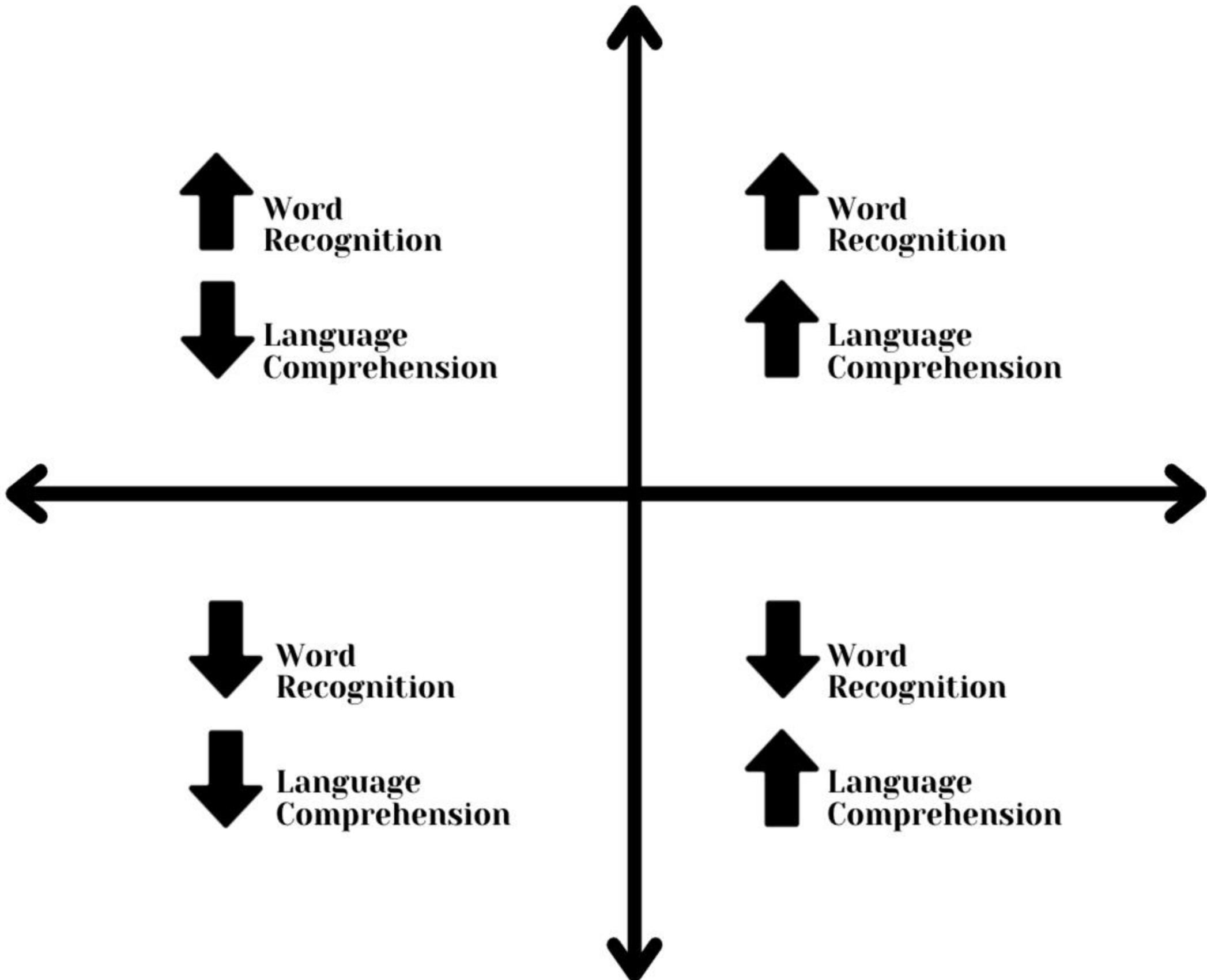
Simple View of Reading and Adolescent Literacy

- Not strictly for elementary level reading acquisition, applicable at any age.
- At any age, reading comprehension only occurs if students have mastered both sets subskills

FACT



Subtypes of Reading Difficulties (4 Quadrants)



Simple View of Reading – Changing Emphasis

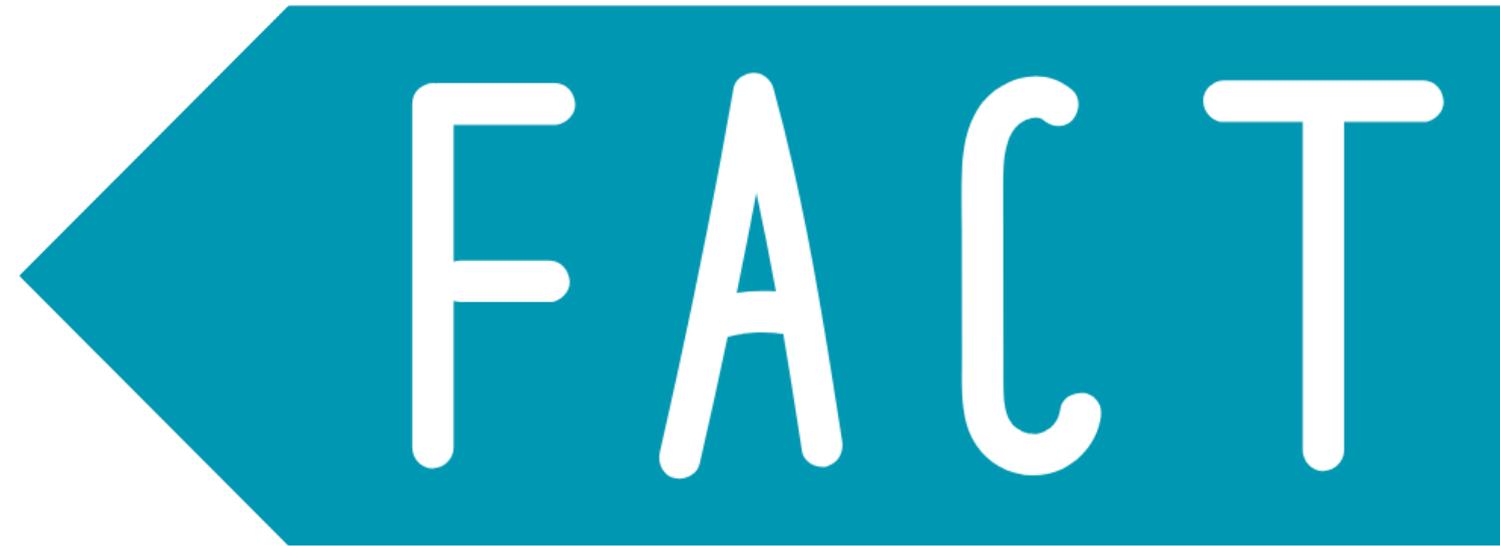
- Language comprehension builds over time, and increases in sophistication as students get older.
- Word recognition accounts for more variance in reading comprehension in the early grades, but...
- Word recognition plateaus, to some extent
- Word recognition is a small part of instruction (advanced word study) in core instruction in MS / HS

FACT

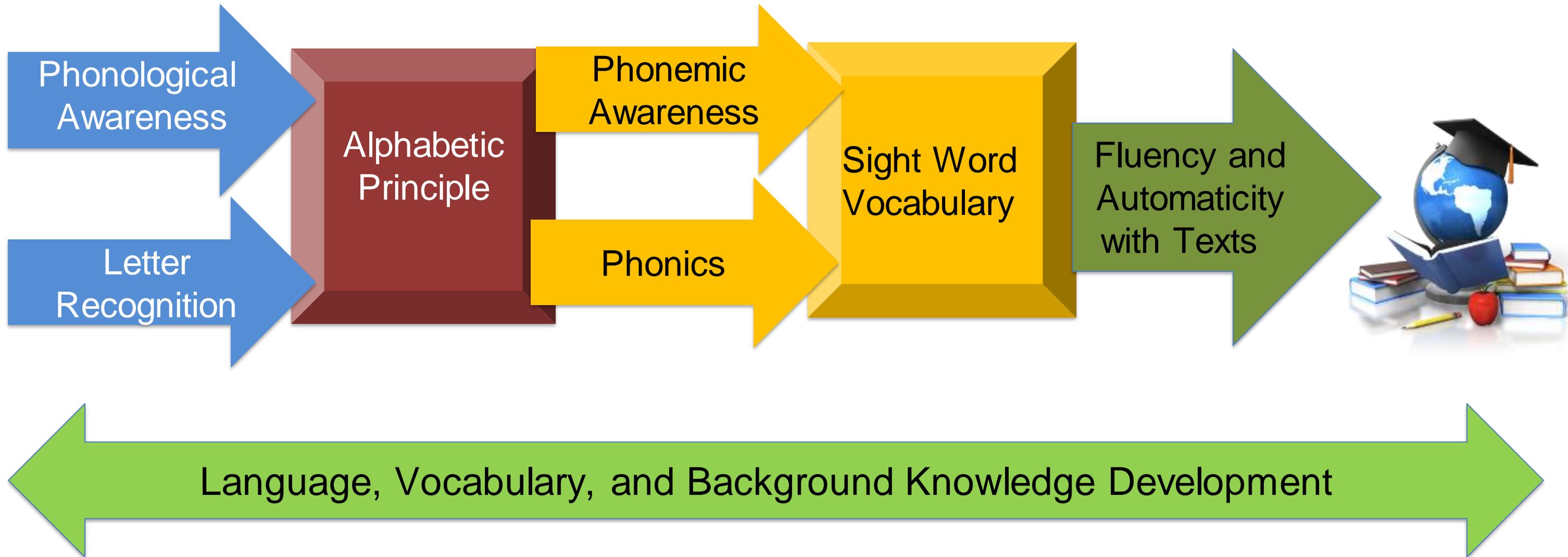


Teach Both Word Rec and Language Comp

- Language comprehension builds over time, and increases in sophistication as students get older.
- Word recognition must be taught using a sequence based on development of skills (easier to harder).
- From preschool on, we are teaching and reinforcing both sides of the simple view of reading.
- The domains are not sequential.



Development of Literacy Skills

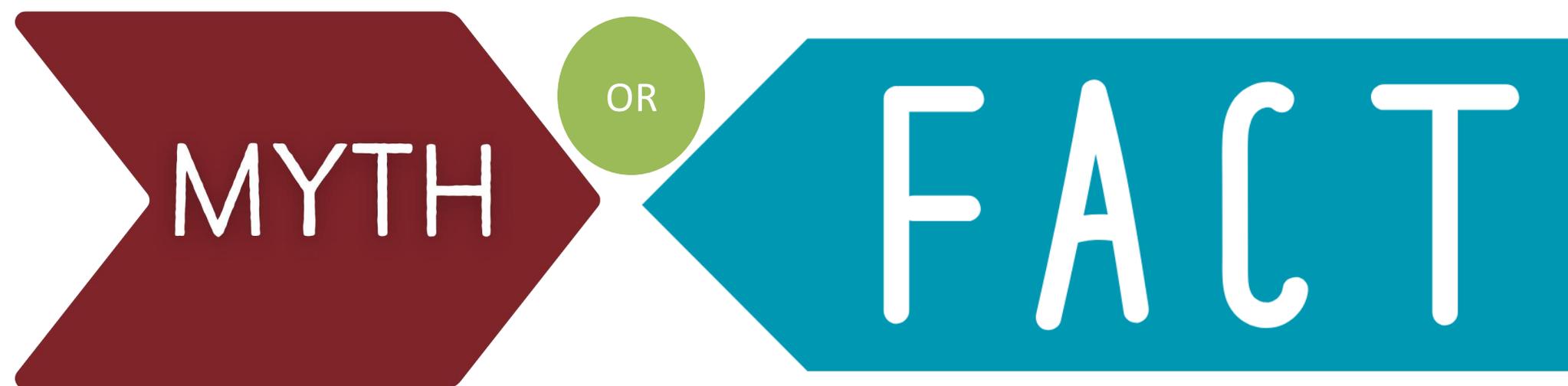


Activity

Shifting Practices

Table Talk

- What is one new things you have learned about reading and the science of reading?
- How will this influence your practices?





@OHEducation

