

Welcome to the RAPID Initiative!

Please introduce yourself by writing your current position in the chat.

Classroom teacher/grade, Reading Specialist, Coach, etc.

RAPID Initiative Training For Educators

Reading Acceleration Professional Integrated Development

Department of Education

2023-2024 School Year



RAPID Objectives

- Support and bolster foundational literacy in early elementary grades (Kindergarten through Grade 3)
- Explore how emergent literacy develops
- Identify necessary components of literacy instruction
- Learn evidence-based instructional practices
- View demonstrations of instructional practices



Agenda - 4 Day Training

Day 1 – 3:45 to 4:45

- Part 1 - Orthography, Orthographic Processing, and Concepts of Print
- Part 2 - Phonological Awareness
- Part 3 - Phonemic Awareness

Day 2 – 3:45 to 4:45

- Part 4 – Phonics

Day 3 – 3:45 to 4:45

- Part 5 – Fluency
- Part 6 – Vocabulary

Day 4 – 3:45 to 4:45

- Part 7 – Comprehension

- Chat Check and Q&A at the end of each part
- PD certificates will be issued at the end of each day

Part 1:

Orthography, Orthographic Processing, and Concepts of Print

Reading Acceleration Professionally Integrated Development

Department of Education

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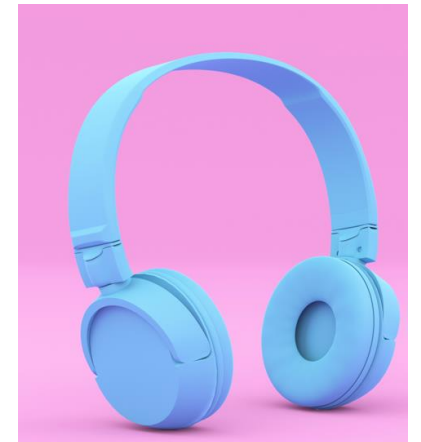
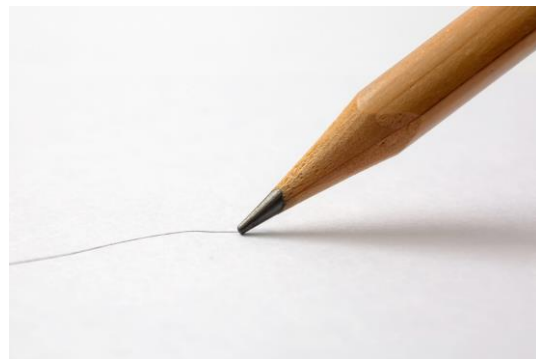


Part 1 Objectives

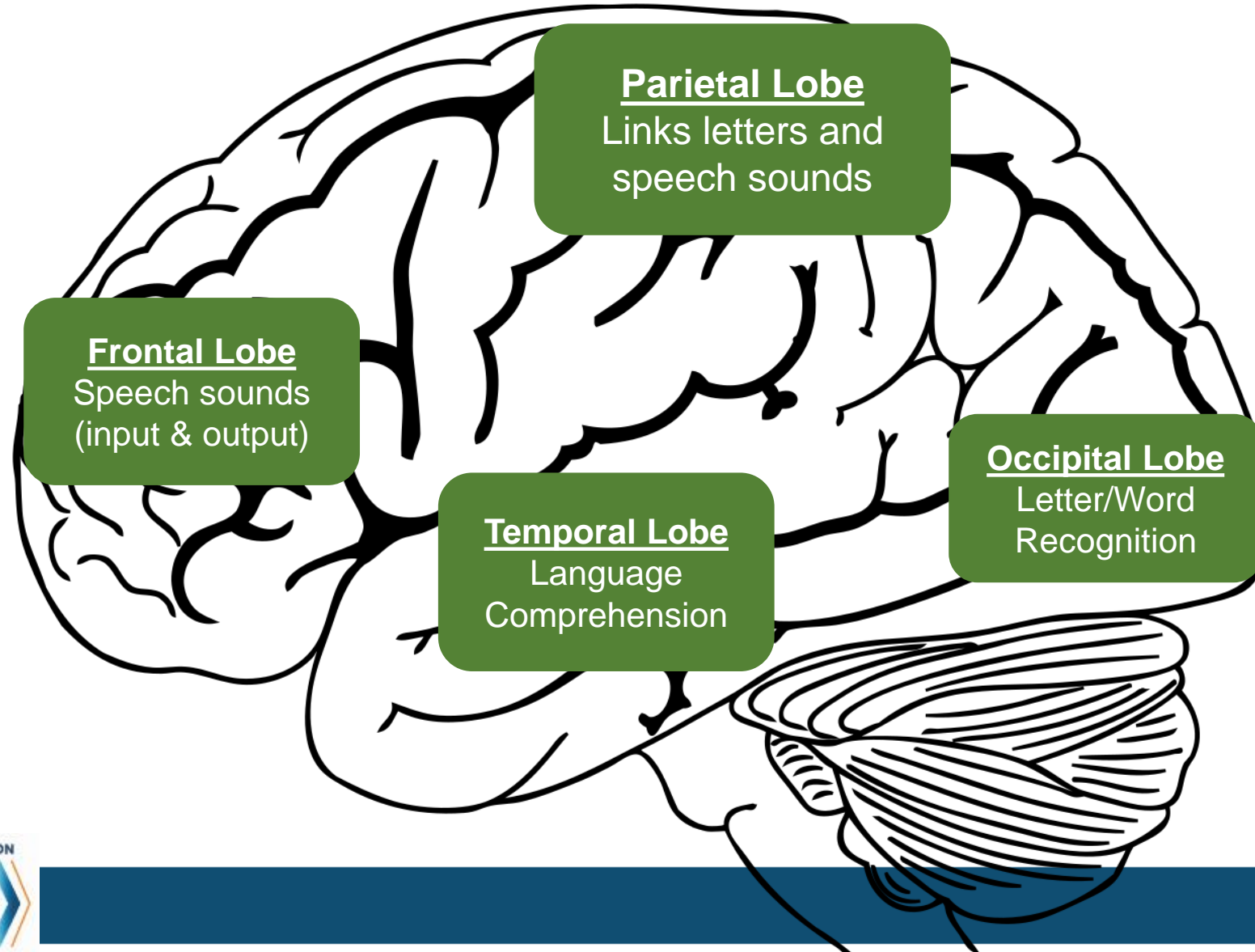
- ✓ Learn how reading develops in the brain
- ✓ Identify the major findings from the National Reading Panel Report
- ✓ Define and explore English orthography and orthographic processing
- ✓ Define and identify ways of teaching alphabet knowledge and concepts of print

What is Foundational Literacy?

Skills that develop proficiency in the areas of
reading, writing, listening, and speaking.



The Reading Brain



The 4 Part Processing Model for Reading

(Based on Seidenberg & McClelland, 1989)

Meaning Processor

- vocabulary
- categories and concepts
- word meanings and associations
- Morphemes (prefixes, suffixes, and roots).

Context

Context Processor

Provides support to the meaning processor by interpreting words based on the language and circumstance

I put **jam** on my sandwich.
Don't **jam** your finger playing basketball!

Meaning Processor

Phonological Processor

Recognizes and discriminates speech sounds in spoken language (phonemes)

Phonological Processor

Orthographic Processor

Recognizes, stores, and recalls the letters and combinations used in written language

Orthographic Processor

What is Orthographic Processing?

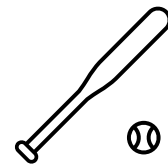
Orthographic Processing is the *cognitive* process

It involves the ability to link the **visual** representation of a word (its letters and letter patterns) to its corresponding **sounds** and **meaning**.



bat

/b/ /a/ /t/





The Simple View of Reading

What is necessary for comprehension?

(Created by Gough & Tunmer, 1986)

Decoding



X

Language
Comprehension



=

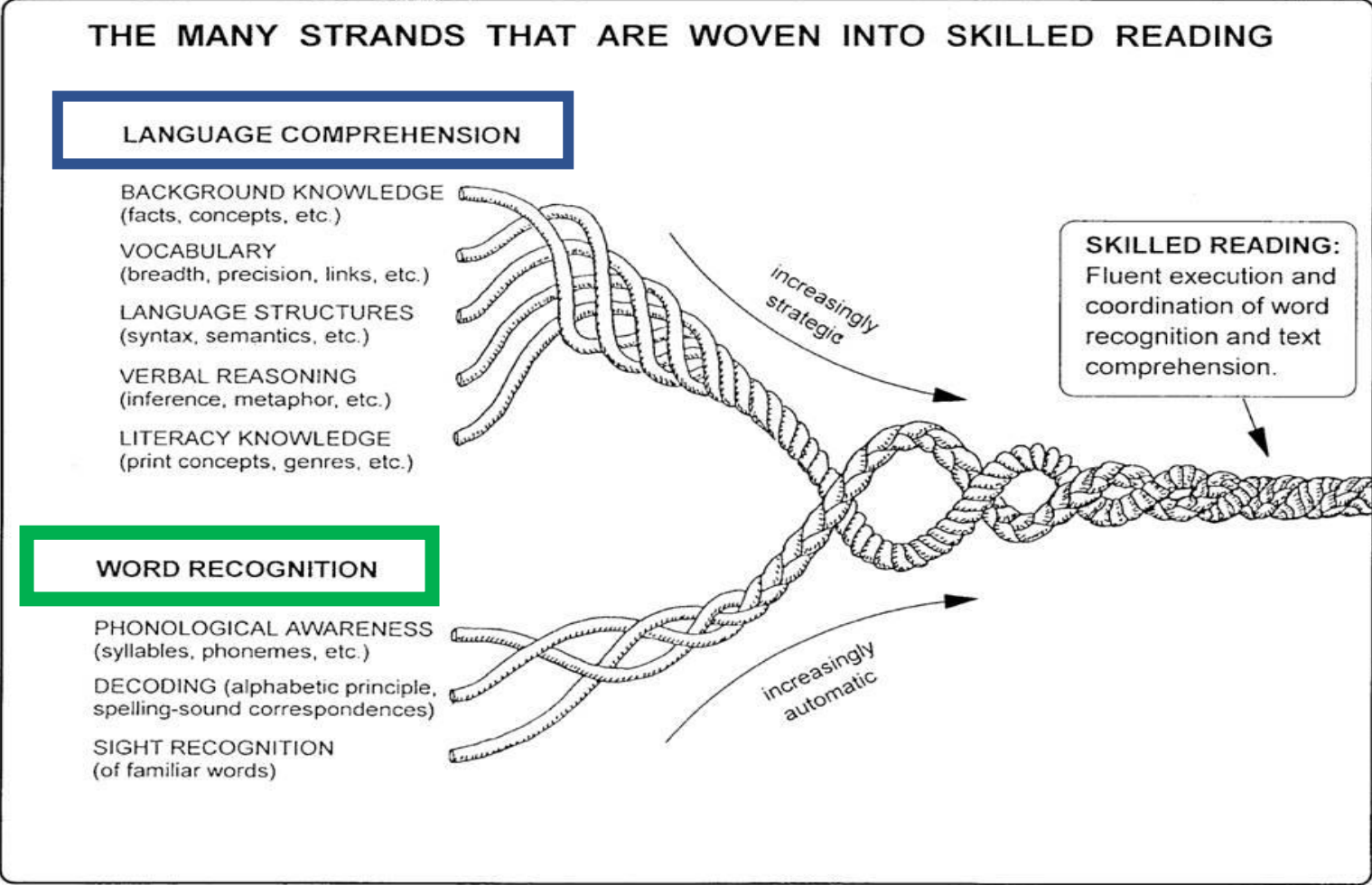
Reading
Comprehension





Scarborough's Reading Rope

Executive Functioning: working memory, self-control, flexible thinking
(Cutting & Scarborough, 2012)



Dr. Hollis Scarborough, a leading researcher of early language development and literacy, created the "Reading Rope" graphic (2001).

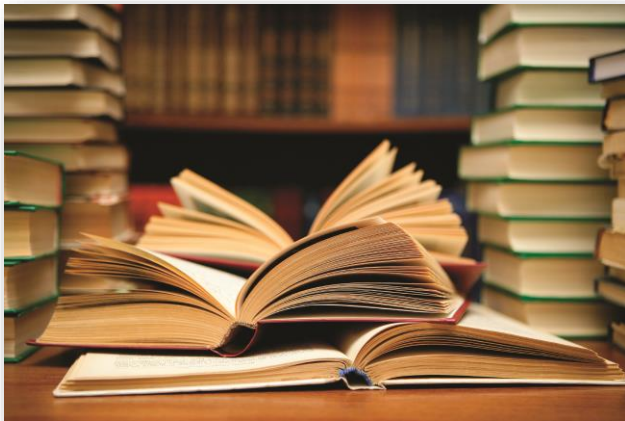


The Reading Research

National Reading Panel

1997

Congress commissioned a group of 14 literacy experts and researchers to review the reading research and report their findings



2000

Phonemic Awareness

Phonics

Fluency

Vocabulary

Comprehension



According to the **Simple View of Reading**, comprehension is the
product of
_____ x _____.

Q & A

What is Orthography?

orthography



correct writing



Conventional spelling system for a language

Orthography

THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING

LANGUAGE COMPREHENSION

BACKGROUND KNOWLEDGE
(facts, concepts, etc.)

VOCABULARY
(breadth, precision, links, etc.)

LANGUAGE STRUCTURES
(syntax, semantics, etc.)

VERBAL REASONING
(inference, metaphor, etc.)

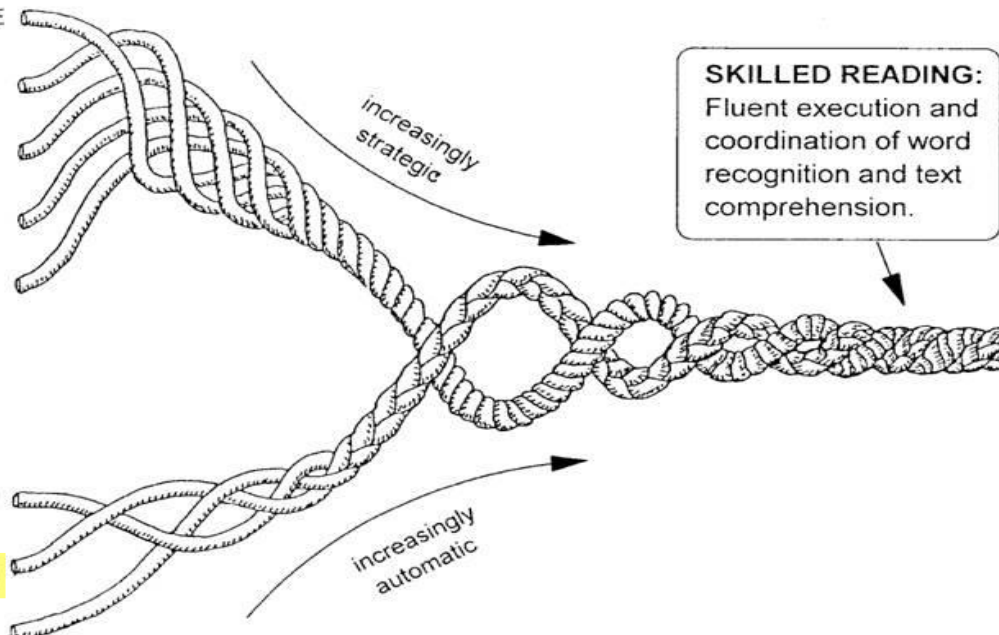
LITERACY KNOWLEDGE
(print concepts, genres, etc.)

WORD RECOGNITION

PHONOLOGICAL AWARENESS
(syllables, phonemes, etc.)

DECODING (alphabetic principle,
spelling-sound correspondences)

SIGHT RECOGNITION
(of familiar words)



SKILLED READING:
Fluent execution and
coordination of word
recognition and text
comprehension.

The Alphabetic Principle

Our writing system is a **code** for **speech sounds**.

We represent those sounds with letters and letter combinations called **graphemes**.



/ɔ/



mop, want



The 44 Sounds of English

25 Consonant Sounds obstructed speech sounds

- 19 initial consonant sounds in the alphabet
/b, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, x, y, z/
- 6 others: */sh/ ship, /ch/ chop, /th/ that, /th/ tooth, /ng/ king, /zh/ vision*



19 Vowel Sounds unobstructed speech sounds

- 5 Short vowels: cat, bed, sit, hop, cut
- 5 Long vowels: cape, he, by, boat, cute
- 2 Diphthongs: house, boy
- 3 Other: look, spoon, claw
- 3 Vowel + R: girl, born, star
- Schwa /ə/: banana, target



A Complex Orthography

English is an opaque orthography
with complexities caused by...

- ✓ **multiple spellings for a single sound**
- ✓ **morpheme structure**
- ✓ **word origin**





Morpheme Structure

Morphemes are
the smallest meaning
units of language.

They include prefixes,
suffixes, roots, and
base words.

jumped, *not* jump

nation, *not* nashin

predict, *not* prudict

Word Origin – Layers of English

Modern English has developed over the course of about 1,400 years.

Other
new words
technology
other languages
(*ski, pizza*)

French - <ou> for /u/ as in soup; <ch> /sh/; special ending -ique, -ette

Greek - science, math, medical words; combining forms
“telephone”; words with <ph> /f/, <ch> /k/

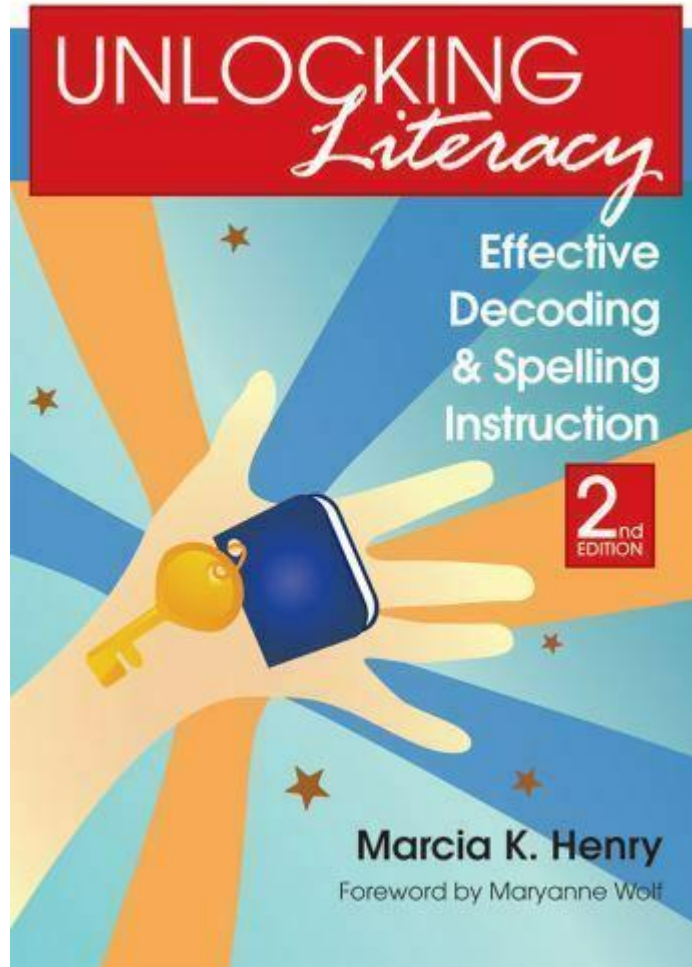
Latin – Multisyllabic words used in textbooks and literature; roots and affixes (-ous, un-); more phonetic spelling patterns such as *struct/ject*

Anglo-Saxon (Old English) – Everyday words like “bird” and “chair” are often 1 syllable; common irregular words like “said” and “there”

Layers of Language Examples

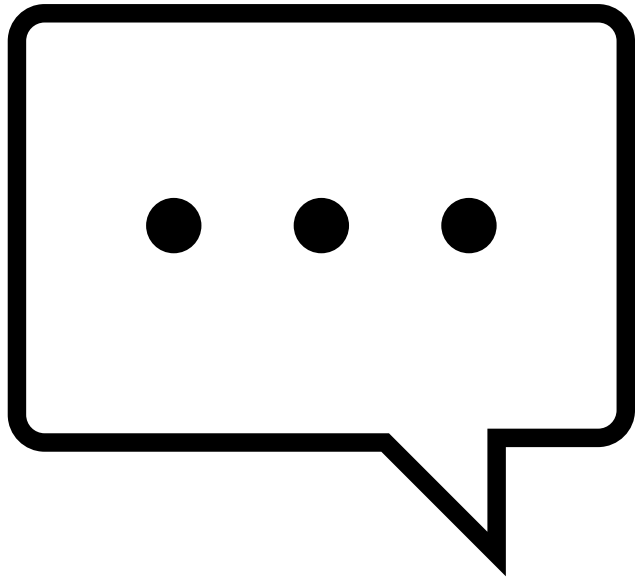
Sound	Anglo-Saxon	French	Latin	Greek
/sh/	shop	chef	nation	
/k/	sock, cat, bake	unique	instruct	chorus
/f/	finger, stuff			phone
/s/	sun, grass	dance		science

Further Reading





Chat Check



Q & A

Teaching Emergent Readers

How do we begin teaching English Orthography to emergent readers?



Early Alphabetic Knowledge (1 of 3)

Students must grasp the alphabetic principle:

our writing system is a code for speech sounds



/k/ /a/ /t/
↓ ↓ ↓
c a t

Early Alphabetic Knowledge (2 of 3)

Teach NAME,
SOUND, &
FORMATION
together

(Piasta et. al., 2010 and 2022; Roberts, 2021)

A B C

Tune in to
articulation

(Boyer & Ehri, 2011)

/f/



Start reading
instruction after a
few learned
graphemes

a, s, p, t
at
sat
sap
tap
pat

<https://ufl.education.ufl.edu/>

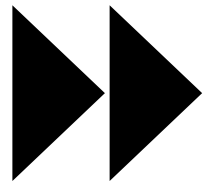
Early Alphabetic Knowledge (3 of 3)

Teach at a rapid
pace
2-3 letters/week

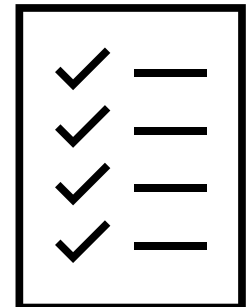
(Vadasy and Sanders, 2018)

Space out the
teaching of easily
confused letters

Follow an efficient
and effective
routine

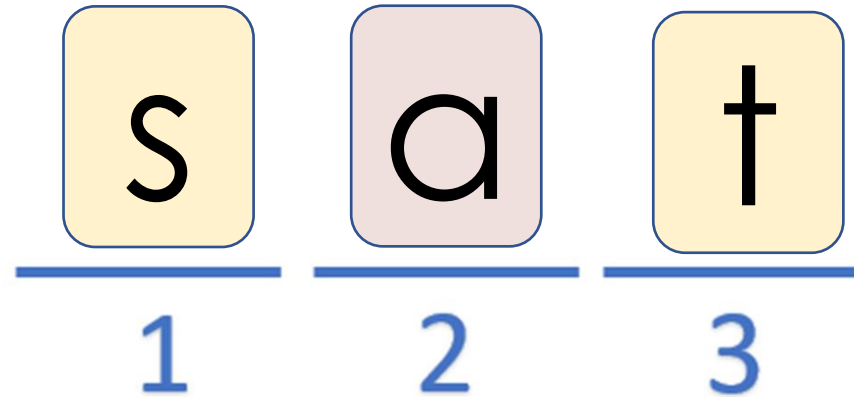
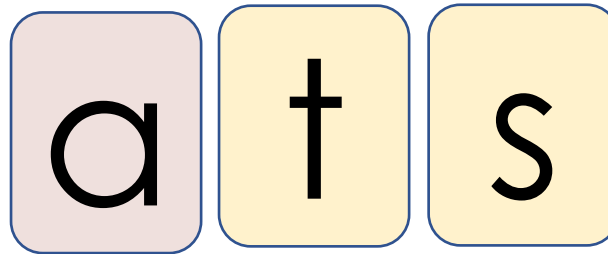


b/d
m/n
f/v
d/t
p/b



Word Building

- Letter sounds can be taught within the context of spelling words
- Letter formation instruction included



Chat Check



Do all letter sounds need to be taught first before reading and spelling words?

Q & A

What are Concepts of Print?

the understanding that...

- print carries meaning
- books contain letters and words
- what books are used for and how a book “works”



Concepts of Print

THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING

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(facts, concepts, etc.)

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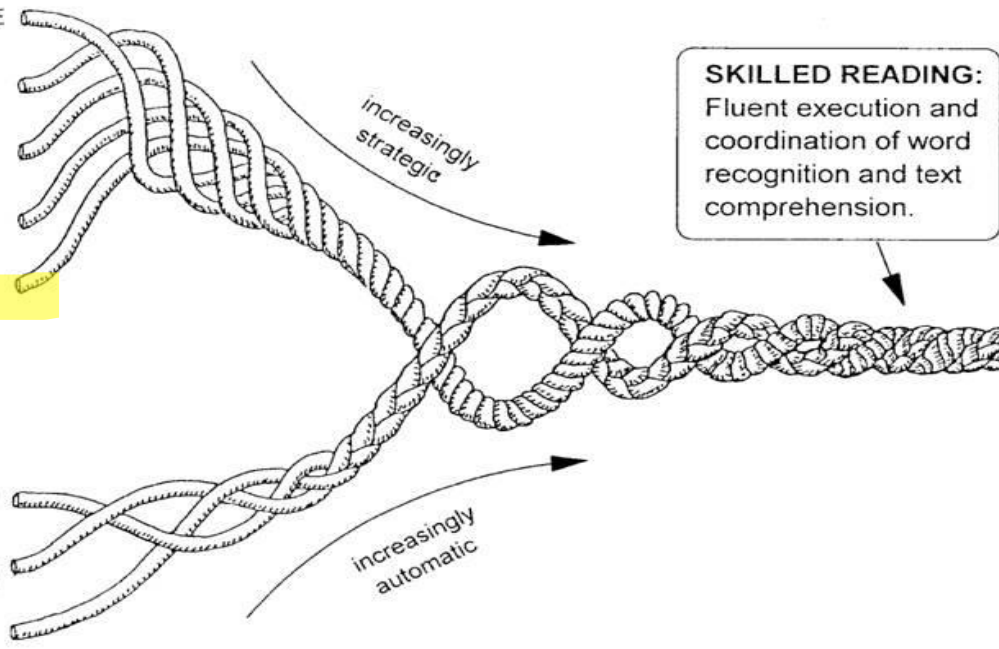
WORD RECOGNITION

PHONOLOGICAL AWARENESS
(syllables, phonemes, etc.)

DECODING (alphabetic principle,
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SIGHT RECOGNITION
(of familiar words)

SKILLED READING:
Fluent execution and
coordination of word
recognition and text
comprehension.





Developmental Progression

Generally follows a progression from simple to complex (Justice & Ezell, 2022)

- Environmental print (the golden arches for *McDonald's*)
- Print holds meaning
- Basic parts of a book
- Point to a letter
- Directionality: left to right, top to bottom
- Varied purposes of print elements (speech bubbles, titles, dialogue)
- Line sweeps
- Difference between upper and lowercase
- Distinguishing between letters, words, sentences, notice spacing
- Various punctuation
- Tracking for one-to-one correspondence

Assessing Concepts of Print

Informal Reading Inventory for Kindergarten



Can you point to...

- the front of the book?
- the title of the book?
- the back of the book?
- a letter?
- a word?
- a sentence?
- the end of a sentence (punctuation mark)?
- How many words are in this sentence?
- Where should I start reading the story?
- How should I hold the book?

Teaching Concepts of Print

Best taught through
shared reading and
modeling the reading
process



Shared Reading Procedures

- Display the book.
- Stop to explicitly teach the concept of print.
- Ask questions to check for understanding.
- Point out different concepts (punctuation, capitals, captions etc.)
- Reread the text on different days inviting the students to read chorally and/or with a partner.





How are concepts of print best taught?

Q & A



References

- Moats, Louisa. *Speech to Print*. Baltimore, Brooks Publishing, 2020.
- Henry, Marcia. *Unlocking Literacy*, Baltimore, Brooks Publishing, 2010.
- *The National Reading Panel Report*, 2000.
- Seidenberg, Mark. *Language at the Speed of Light*. New York, Basic Books, 2017
- <https://www.researchgate.net/publication/232890480> Contribution of Phonemic Segmentation Instruction With Letters and Articulation Pictures to Word Reading and Spelling in Beginners
- <https://www.researchgate.net/publication/45424522> Developing Early Literacy Skills A Meta-Analysis of Alphabet Learning and Instruction
- <https://www.researchgate.net/publication/337498944> Roberts Vadasy Sanders ECRO 2018 Preschoolers' alphabet learning Letter name and sound instructioncognitive processes and English proficiency

Part 2: Phonological Awareness

RAPID Initiative

Department of Education

2023-2024 School Year



Part 2 Objectives

- ✓ Define the terms **phonological processing** and **phonological awareness**
- ✓ Explore the subsets of phonological awareness
- ✓ Understand the role of phonological awareness in literacy



Phonological Processing

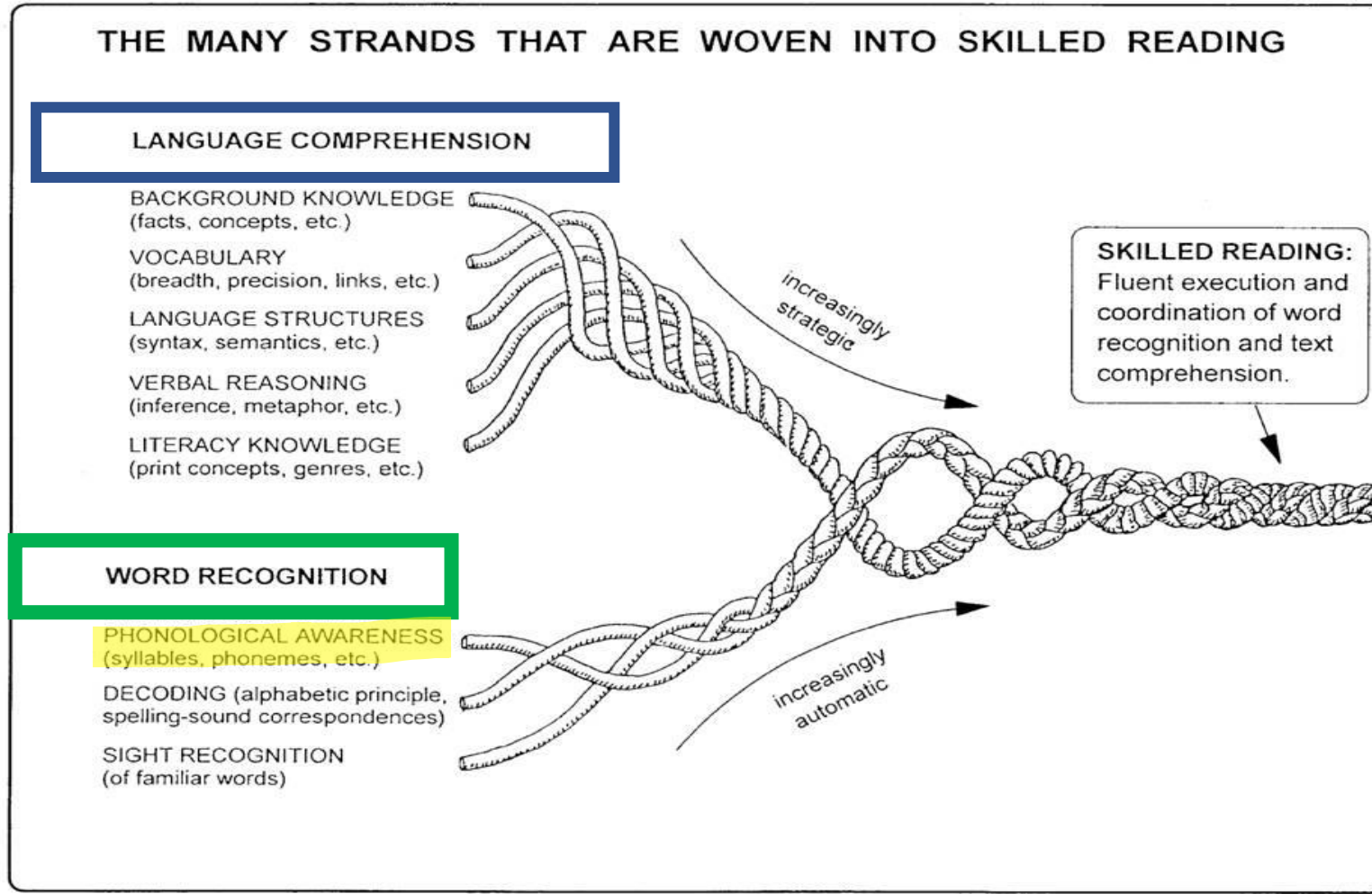
Phonological processing is a cognitive skill that involves using the sounds of one's language to process spoken and written language.

(Wagner & Torgesen, 1987)

It involves several sub-skills:

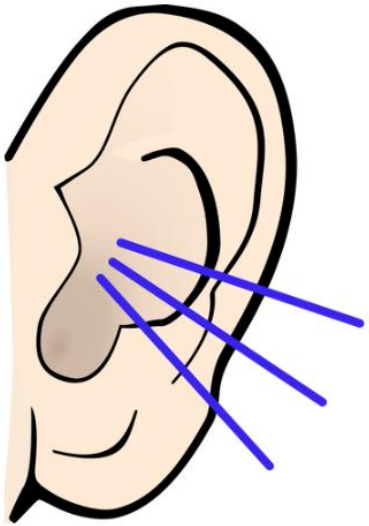
- phonological awareness
- phonological memory
- phonological retrieval

Scarborough's Reading Rope



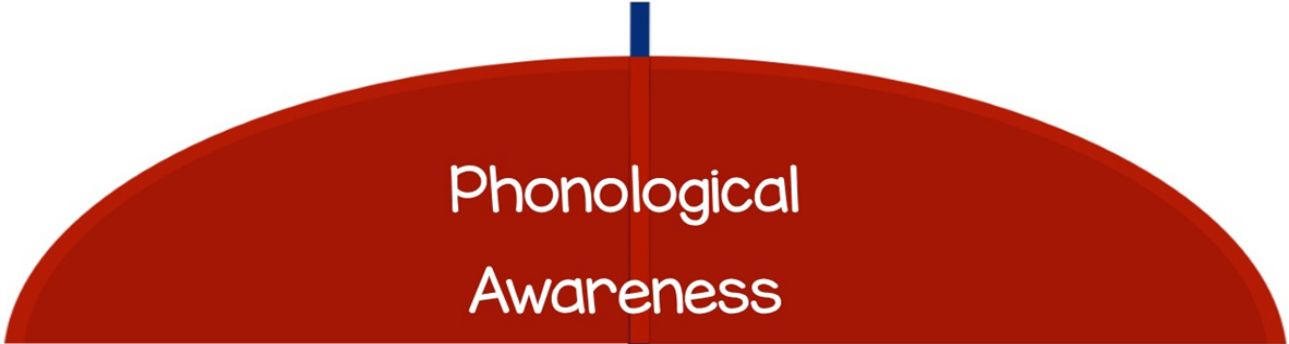
What is Phonological Awareness?

Phonological awareness is an umbrella term that includes identifying and manipulating parts of spoken language.



Skills ranging in complexity:

- **word awareness**
- **rhyming & alliteration**
- **syllable awareness**
- **onset-rime awareness**
- **phoneme awareness**



Phonological Awareness



Word Awareness

The sun is hot.



Rhyme Awareness/
Alliteration

sun bun
funny friend



Syllable Awareness

cow boy
plan et



Onset-Rime Awareness

b ack
tr ain



Phoneme Awareness

cat
/k/ /a/ /t/



Research on Phonological Awareness

- Early rhyming ability is correlated to later reading outcomes (Maclean, Bryant, Beadley, 1987)
- Deficits in early phonological awareness can be early markers for dyslexia (Lyon, Shaywitz, and Shaywitz, 2003)
- The most important part of phonological awareness for reading and writing is phonemic awareness (NICHD, 2001)

Phonological Sensitivity Activities

Preschool age Children

Focus on larger units

- Words
- Syllables
- On-set rime



Make it Playful



- ✓ Games
- ✓ Nursery rhymes and poetry
- ✓ Use manipulatives
- ✓ Use hand motions
- ✓ Help students *feel* sound units



Word Awareness

- Tap the cards as you say each word.
- *“How many words are in each sentence? Repeat after me:*







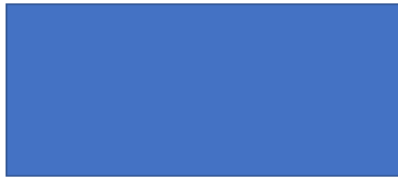

The dog ran.

- *Now say it again while you tap the cards. The dog ran.*



Rhyme Awareness (1 of 2)

- Read poems and rhyming books
- Use cards to show what stays the same and what changes

Yes		No	
			
			

- Move to generating rhyme: *What rhymes with hat?*

Syllable Level

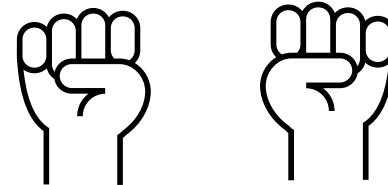
Syllable: a unit of pronunciation having one vowel sound

- Can be a whole word or part of a word
- Feel chin drop or hum the word
- Start with compound words
- Use notecards or hand motions when teaching

Progression:

- ✓ Blend syllables
- ✓ Segment syllables
- ✓ Delete syllables

cowboy



Onset-Rime Level

Onset: the part of a syllable before the vowel

Rime: the part of a syllable that includes the vowel and what comes after it

boat

- Begin by deleting the onset
- Progress to substituting the onset
- Use notecards, tokens, or hand motions to teach

Say boat
without
b...

boat



Change **b**
to **g**...



Chat Check



How can you make the learning more concrete for students during phonological awareness tasks?

Q & A



References

- Kilpatrick, David. *Equipped for Reading Success*. Syracuse, Casey & Kirsch Publishers, 2016.
- Moats, Louisa. *Speech to Print*. Baltimore, Brooks Publishing, 2020.
- *The National Reading Panel Report*, 2000.

Part 3: Phonemic Awareness

RAPID Initiative

Department of Education

2023-2024 School Year



Part 3 Objectives

- ✓ Define the term phonemic awareness
- ✓ Examine what research shows about the role of phonemic awareness in reading
- ✓ Define and discuss orthographic mapping
- ✓ Learn instructional activities for teaching phonemic awareness

What is Phonemic Awareness?



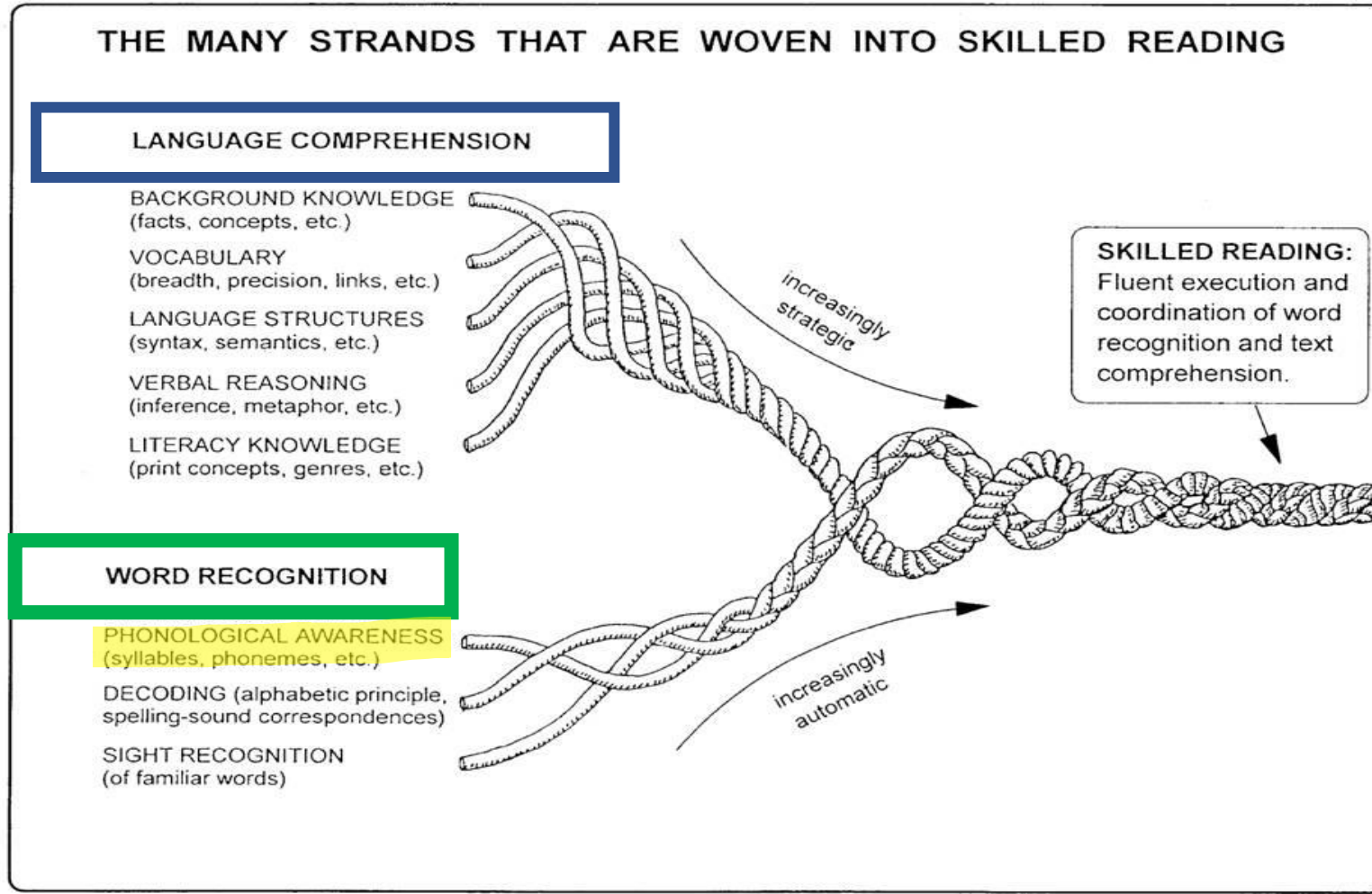
It is the conscious awareness that words are made up of **phonemes** (the smallest unit of spoken language).



/r/ /o/ /k/

rock

Scarborough's Reading Rope



Key Research Findings



PA predicts later decoding abilities and reading comprehension (Caravolas et al., 2019; Clayton et al., 2020)



Phonemic awareness can be taught to young children without first teaching phonological sensitivity (Becker & Sylvan, 2021; Ukrainetz et al., 2011).

abc

Phonemic awareness instruction is most effective when children are taught with letters (NRP, 2000; Clemens et al., 2021)



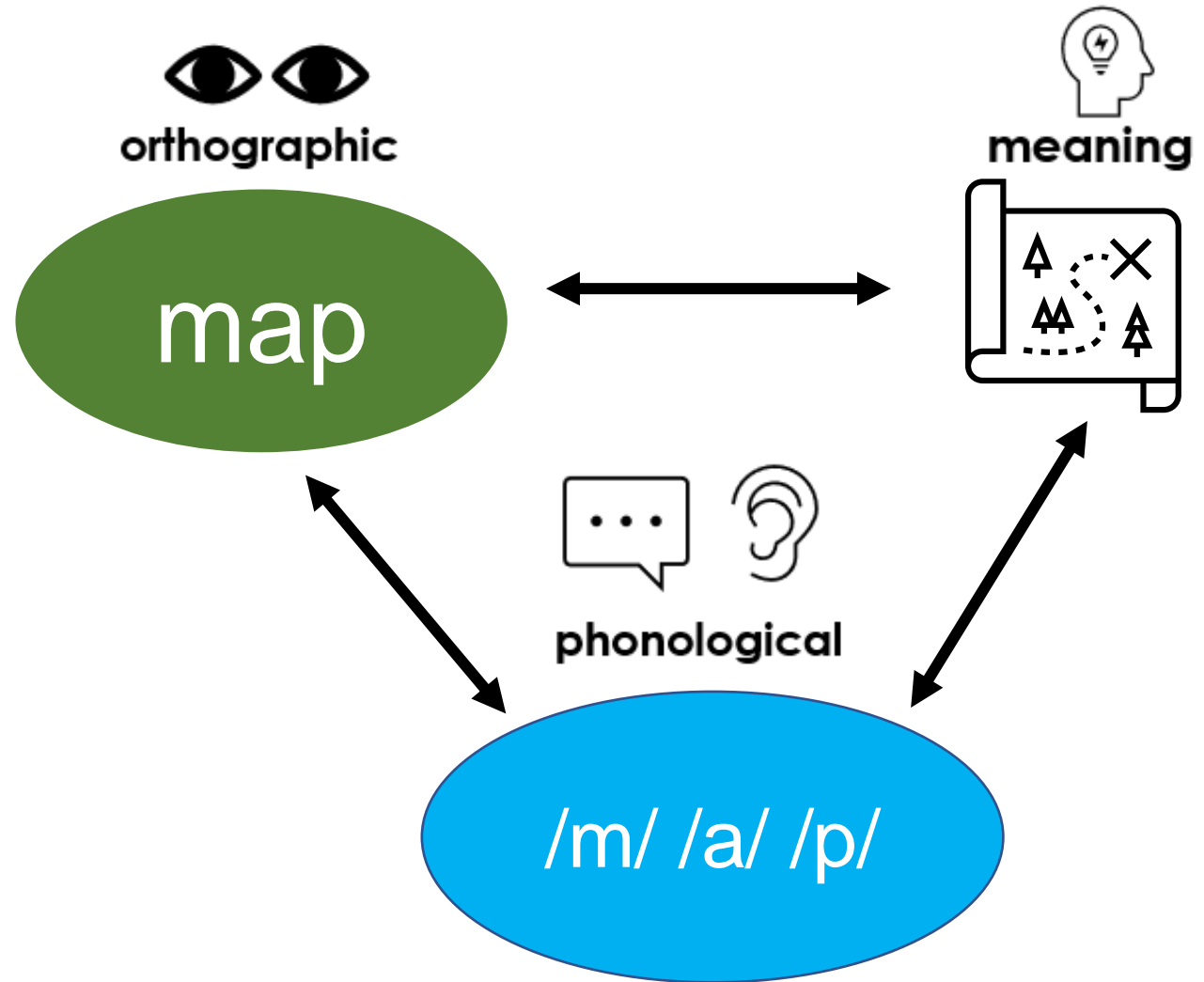
Phonemic awareness is necessary for orthographic mapping to occur (Ehri, 2014)

Orthographic Mapping

Orthographic mapping (OM) involves the formation of **letter-sound connections** to bond the **spellings, pronunciations, and meanings** of specific words in memory.



It explains how children learn to read words by sight, to spell words from memory, and to acquire vocabulary words from print.

(Linnea C. Ehri, 2014)



Key Take Away

For students to *orthographically map* words, they need:

- phonemic awareness (sounds) 
- phonics (phoneme-grapheme correspondences) **ph** ↔ **/f/**
- vocabulary (meaning) 



Otherwise, the words will not be stored in long-term memory for instant retrieval.



3 Key PA Skills

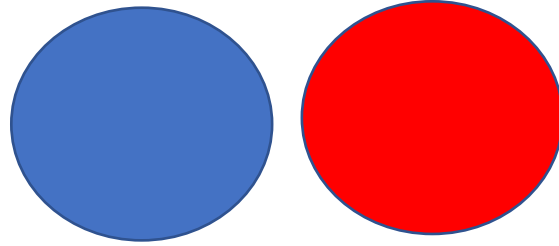
- **Blending** – putting sounds together */mmaaat/*
- **Segmenting** – pulling sounds apart */m/ /a/ /t/*
- **Manipulation** – adding, deleting, or substituting sounds
Say mat. Change /t/ to /p/ = map

Principles of PA Instruction

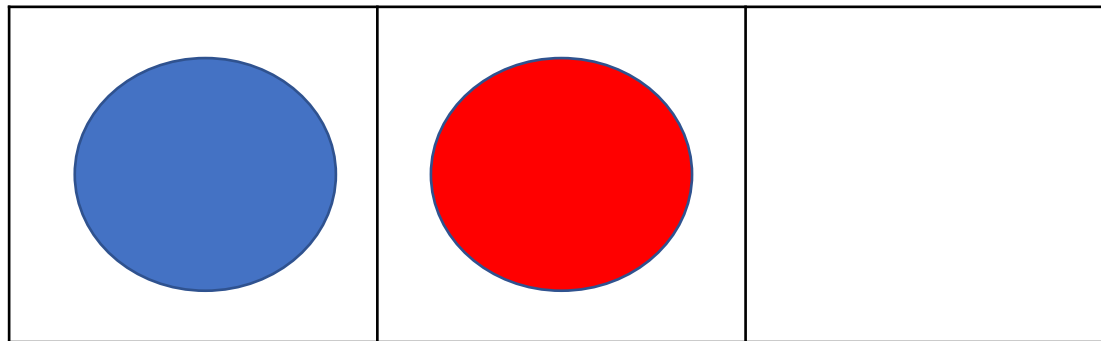
- Enunciate sounds = /b/ NOT /bə/
- Align phonemic awareness instruction with phonics instruction <sh> /sh/ /o/ /p/
- Follow efficient routines and keep explicit oral PA instruction brief (< 5 minutes/day)
- Use letters to integrate code knowledge with phonemic awareness 
- Use assessment to target small group instruction
- During oral PA tasks, use tokens as a scaffold to make the learning concrete 

Before Students Know Letters...

- Start with tokens



- Begin with 2 phoneme words (*in, on, an, up, it, app*)
- Model and ask students to echo

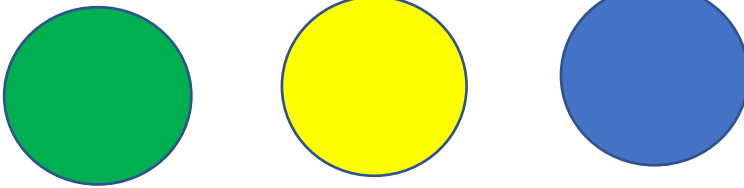




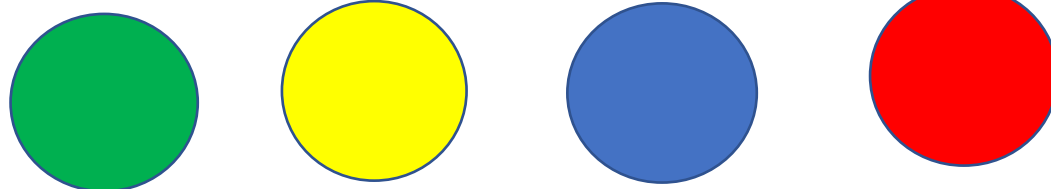
More Sounds = Greater Difficulty

- Increase to 3, 4, 5, 6

/l/ /i/ /t/



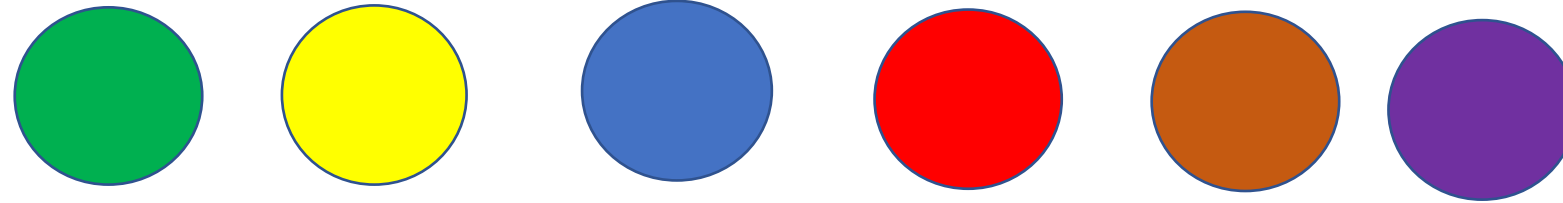
/s/ /l/ /i/ /t/



/s/ /l/ /i/ /t/ /s/

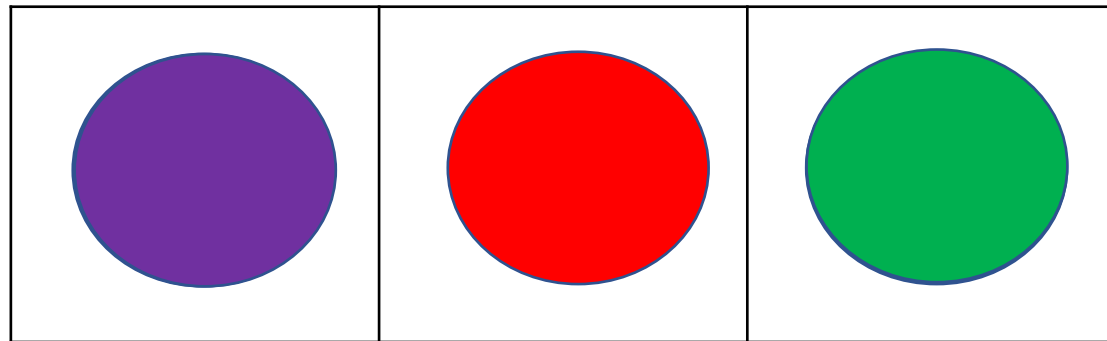


/s/ /p/ /l/ /i/ /t/ /s/



Manipulation = Greater Difficulty

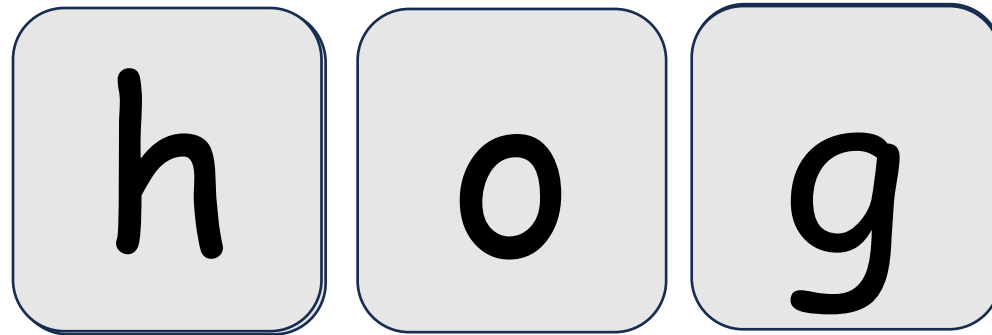
- ✓ Show me the sounds in “top”
- ✓ Say top. change /t/ to /h/, what’s the new word? **hop**
- ✓ Say hop. change /p/ to /g/, what’s the new word? **hog**



Word Chaining Tasks Build PA

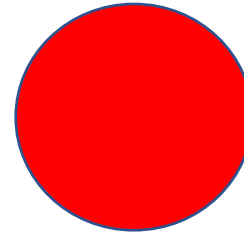
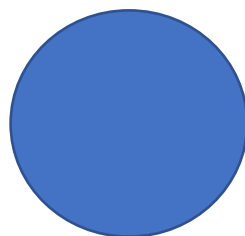
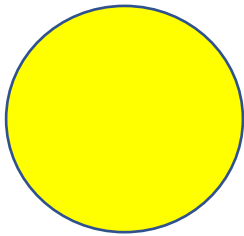
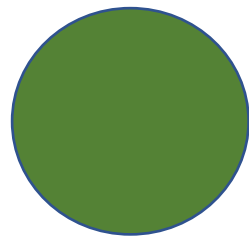
- Use letter tiles to add, delete, and substitute sounds/graphemes
- Start with initial position, then final, and medial

top, hop, hog



PA with Consonant Clusters

- “Say **train**. Say **train** without /t/.” = rain
- “Say **black**. Say **black** without /l/.” = back
- “Say **went**. Say **went** again but change /n/ to /s/.” = west



Chat Check



What are two critical **phonemic awareness skills** for reading and spelling?

Q & A

Learn More...

- *Equipped for Reading Success* by David Kilpatrick

Equipped for Reading Success

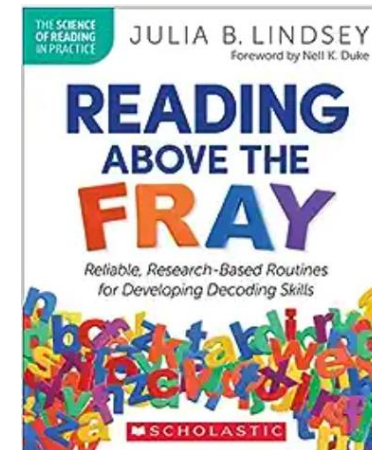
A Comprehensive, Step-by-Step Program for Developing Phonemic Awareness and Fluent Word Recognition



David A. Kilpatrick, Ph.D.

[Click to enlarge](#)

- *Reading Above the Fray* by Julia B. Lindsey



References

- Kilpatrick, David. *Equipped for Reading Success*. Syracuse, Casey & Kirsch Publishers, 2016.
- Moats, Louisa. *Speech to Print*. Baltimore, Brooks Publishing, 2020.
- *The National Reading Panel Report*, 2000.
- Becker and Sylvan, 2021

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- Brady, Susan. *The Reading League Journal: A 2020 Perspective on Research Findings on Alphabets (Phoneme Awareness and Phonics): Implications for Instruction*. September/October, 2020.
- Ukrainetz et. al, 2011. *The Effects of Syllable Instruction on Phonemic Awareness in Preschoolers*: <https://www.sciencedirect.com/science/article/pii/S088520061000044X>