

# Phonemic Awareness

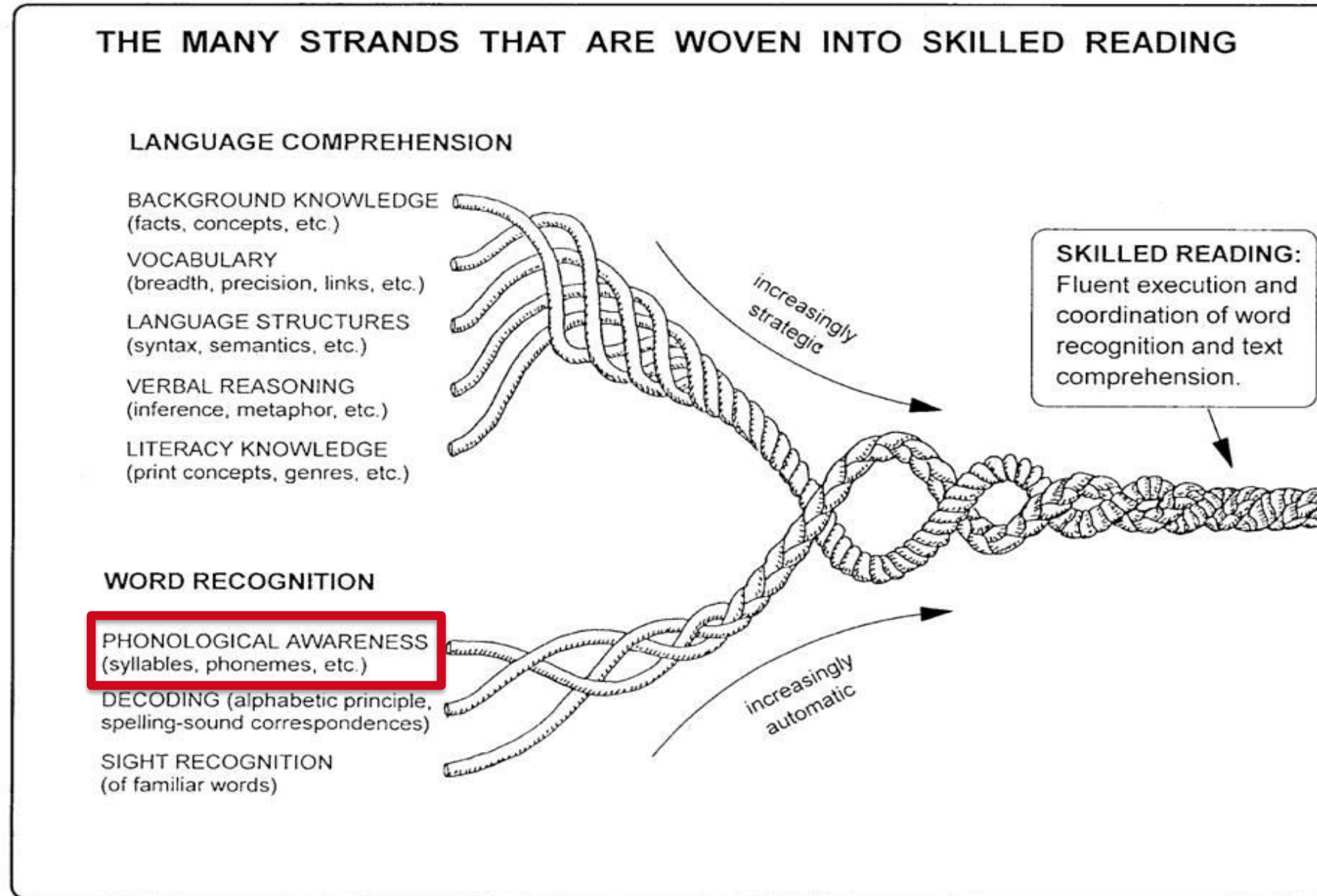


Jan Hasbrouck, Ph.D.

# Phonemic Awareness



# Components of Reading



<https://dyslexiaida.org/wp-content/uploads/2018/03/readingrope-2010.jpg>

Scarborough, 2001

# Definitions

## Phonological Awareness:

- an umbrella term that includes both awareness of words at the phoneme (or sound) level and awareness of larger units such as syllables and onset/rime in spoken words.

## Phonemic Awareness:

- the conscious awareness of and ability to *NOTICE*, *IDENTIFY* & ultimately *MANIPULATE* the sequence of sounds in words in spoken language.

# Definitions

## Phonological “Sensitivity” (Brady, 2020):

- Awareness of the larger and more noticeable units of speech sounds in spoken words such as rhymes, onsets, and syllables. Generally acquired before phoneme awareness *without explicit instruction*. Often focus of Kindergarten practice.

## Phonemic “Proficiency” (Kilpatrick, 2016)

- Emerging research suggests *proficiency* in phoneme awareness skills essential for building large and continuously expanding sight vocabulary (orthographic mapping).

# Research

- Alvin & Isabel Liberman 1970s
- “Alphabetic principle”– symbols representing speech must be understood for skillful reading.
- Examined why reading is more difficult than speech perception. Discovered that children who fail to learn to read on schedule *lack awareness of phonemes*.
- Deaf vs blind children.

# Research

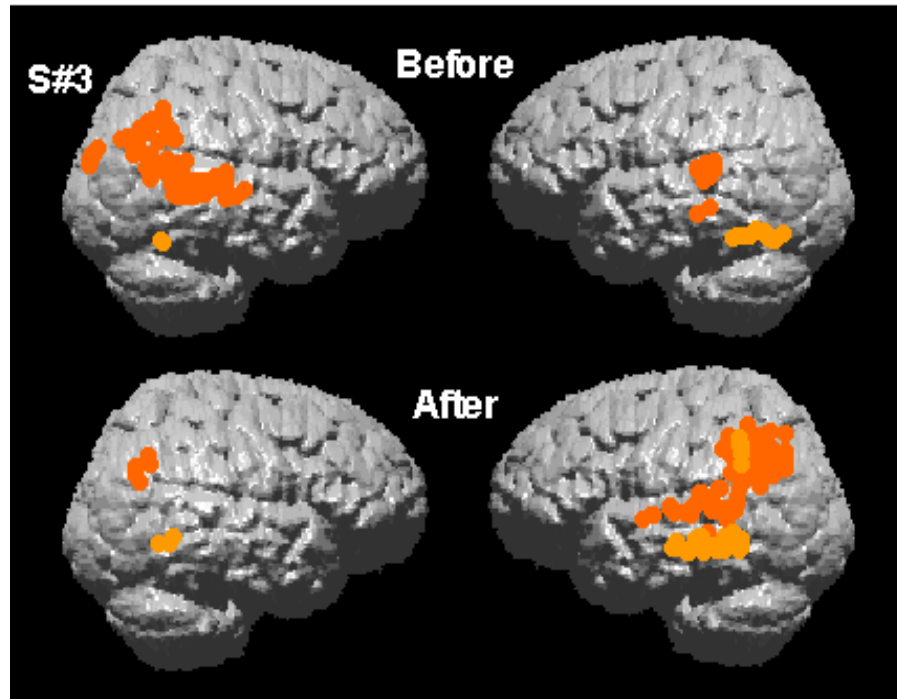
Patterns of brain activation change  
in response to instruction & intervention—

Simos et al. (2002) *Neurology*

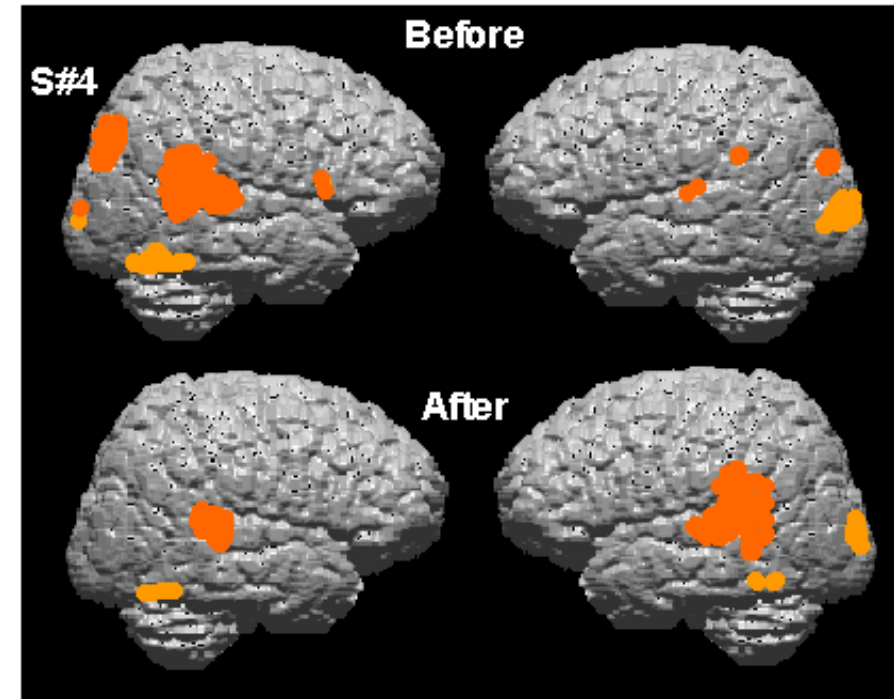
- 8 children with severe dyslexia
- 8 week intense phonological/phonemic intervention
- 2 hours a day = up to 80 hours of instruction
- Ages 7- 17 years old
- Test + scan pre/post

# Research

15 year-old



10 year-old





# Purpose of Phonemic Awareness

- Reading print requires understanding that sound units in spoken language are represented by symbols.
- PA maximizes the ability to orthographically map words (create and store “sight words”).
- Sight words essential for reading fluency, which is essential for comprehension.

# Purpose of Phonemic Awareness

- Reciprocal benefits of PA & phonics.
- Weak phoneme awareness is *the most common reason* students struggle with reading, writing, and spelling.
- Major indicator of possible dyslexia.

# Skill Progression

- Continuum of typical skill development:
  - Age 4-5
    - Recognize rhyme
    - Clapping/counting syllables
  - Age 5 ½
    - Produce rhyme
    - Isolate beginning sounds

<http://www.readingrockets.org/article/development-phonological-skills>

# Skill Progression

–Age 6

- Blend and segment words with 2-3 phonemes
- Syllable deletion

–Age 6 ½

- Segment words with 3-4 phonemes including blends
- Phoneme substitution to build new words

# Skill Progression

–Age 7

- Phoneme deletion initial & final positions

–Age 8

- Phoneme deletion initial position including blends

–Age 9

- Phoneme deletion (medial & final positions)

# Assessing PA: Rationale

- Prediction of later reading success by both early PA & letter sound knowledge verified by several longitudinal studies.
- *Skill weakness or deficits can be remediated.*

# Assessing PA: Process

- Yopp-Singer Test of Phoneme Segmentation 22 items; 2-3 phoneme words
- Phonological Awareness Screening Test (PAST)  
52 items; syllable, onset-rime, phoneme deletion & substitution (advanced) [www.thepasttest.com](http://www.thepasttest.com)
- Comprehensive Test of Phonological 2nd Ed. (CTOPP-2)
- Test of Phonological Awareness in Spanish (TPAS)

# Teaching PA

- “...gaining phoneme awareness appears to require instruction.” Brady, 2020 p. 21
- Focus instructional time & efforts on mastery **PHONEME** awareness over **PHONOLOGICAL** awareness or sensitivity.
- Systematic & explicit instruction:
  - Scope & sequence
  - I do/ we do/ you do



# PA Instruction

- RHYMING man can? man mad?
- COMPARISON man man? sad Sam?
- BLENDING sssaaaaamm: Sam

modeling continuous blending more effective

- SEGMENTING Sam: /s/ /a/ /m/

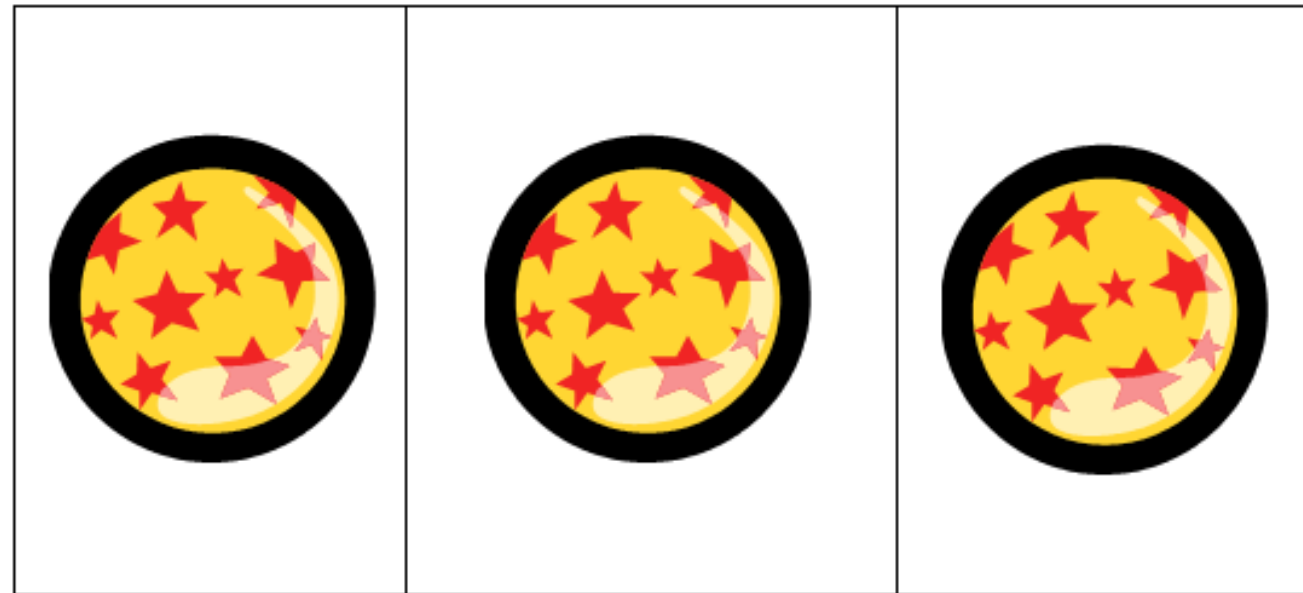
# PA Instruction

- ISOLATION beginning? /s/ middle? /a/ end? /m/
- EARLY DELETION “Sam” without the /s/: am;  
“mat” without the /at/: /m/
- EARLY SUBSTITUTION cat → sat
- ADVANCED DELETION be(s)t → bet
- ADVANCED SUBSTITUTION li(f)t → li(s)t

# PA Instruction

## Sound Boxes

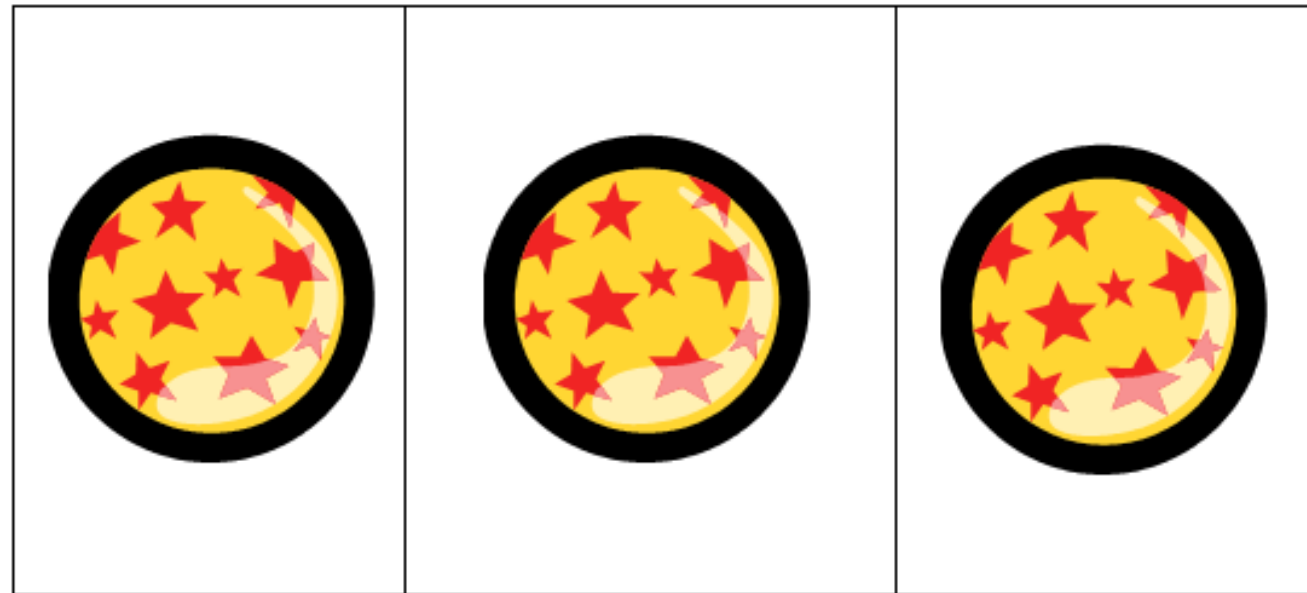
Draws attention to individual phonemes



Or fingers, popsicle sticks, pencils...

# PA Instruction

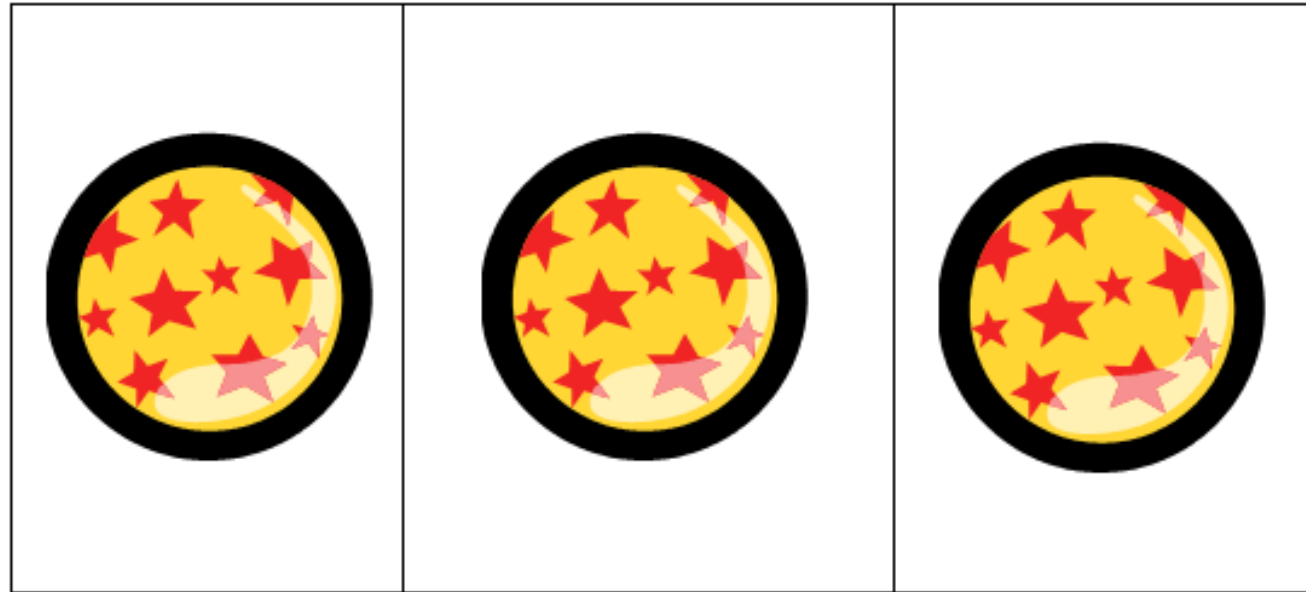
## Segmenting



Say the sounds in “mad”

# PA Instruction

## Blending



/m/ /a/ /d/ = What word?

# PA Instruction

## Substitution



Change /d/ to /n/

# PA Instruction

## Tap it, Map it, Zap it

- Tap sounds in a word.
- Place a marker for each sound.
- Use finger to show blending sounds.
- Use bingo wand to zap up the markers/sounds, from left to right.



FROM: Fifty Nifty Activities Judi Dodson

# PA Intervention Materials

- Phonemic Awareness English & Spanish  
Michael Heggerty  
[www.literacyresourcesinc.com](http://www.literacyresourcesinc.com)
- Equipped for Reading Success  
David A. Kilpatrick
- Phonemic Awareness in Young Children  
Adams et al.




# PA Intervention Materials

- Lindamood Phoneme Sequencing (LiPS)  
[www.listening-ears.com](http://www.listening-ears.com)
- K-PALS & Grade 1 PALS  
[www.learningstore.org](http://www.learningstore.org)
- SPELL-Links to Reading & Writing

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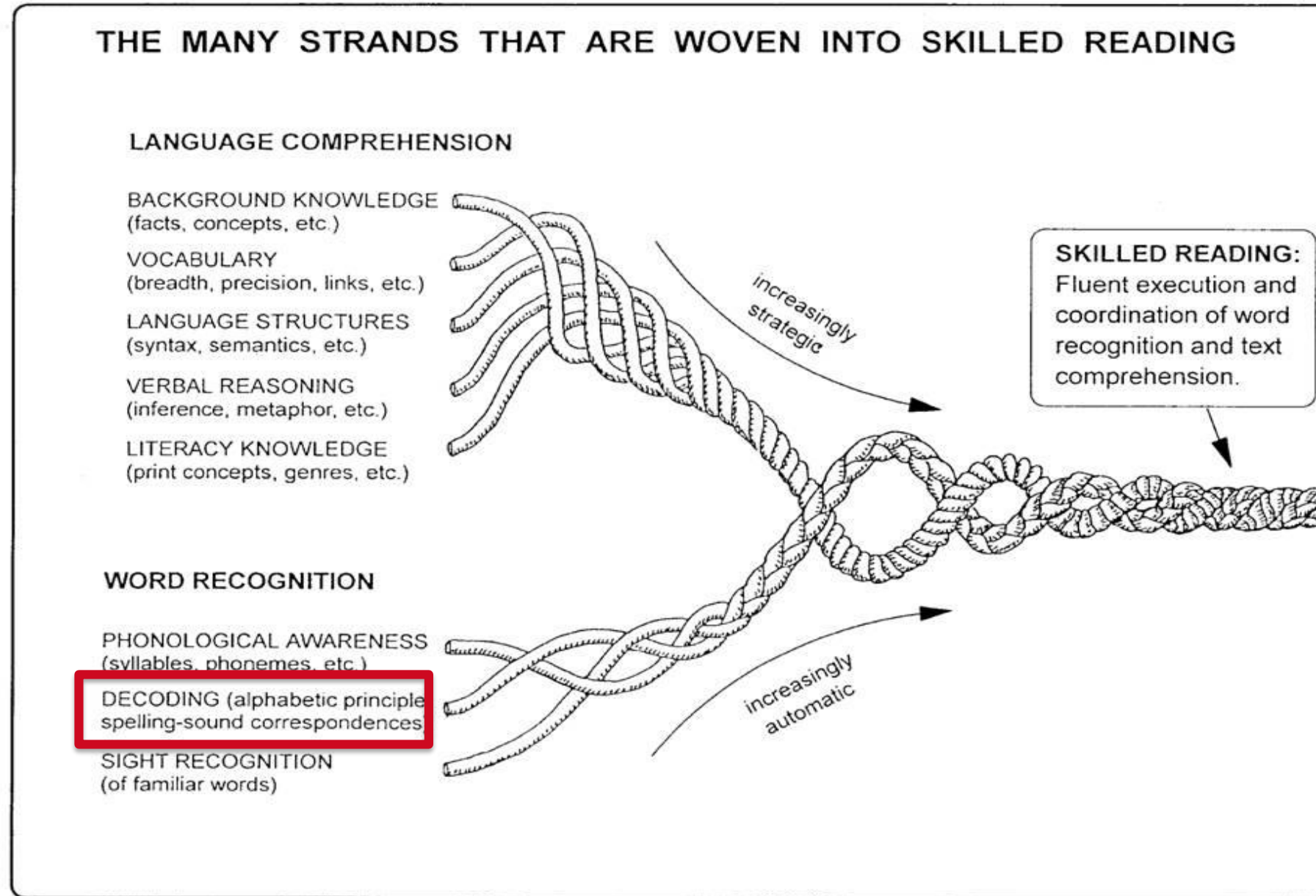
Jan Hasbrouck, Ph.D.  
JH Educational Services  
Seattle, WA  
janhasbrouck@gmail.com  
 @janhasbrouck

# Systematic Phonics



Jan Hasbrouck, Ph.D.

# Components of Reading



<https://dyslexiaida.org/wp-content/uploads/2018/03/readingrope-2010.jpg>

Scarborough, 2001

# Definitions

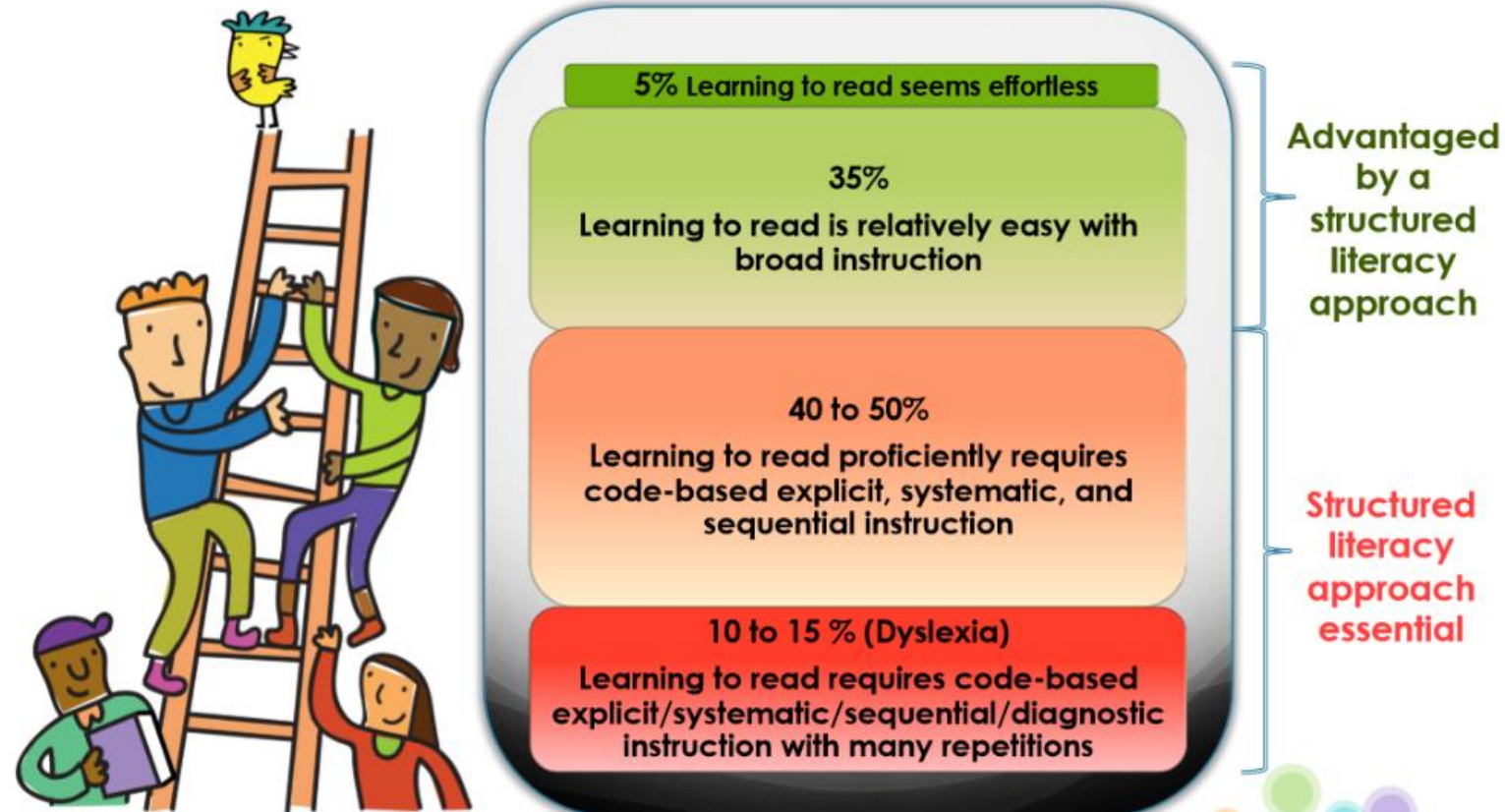
## Phonics:

- The relationship between the SOUNDS of SPOKEN language (phonemes), and the way those sounds are represented by SYMBOLS-- letters, groups of letters (graphemes), syllables in the WRITTEN language (orthography).

“Alphabetic Principle” – necessary for proficient reading

# The Reading Ladder

## The Ladder of Reading



© N. Young, 2012 (Updated 2020)

Artwork by Dean Stanton

(Lyon, 1998; NRP, 2000; IDA, 2015; Hemenstall, 2016)

Used with permission

# Definitions

## Systematic

- SCOPE of skills & content
- SEQUENCE useful skills first; easy-to-hard; separate confusions
- Frequent REVIEWS

## Explicit

- DEMONSTRATION/MODELING “I do”
- GUIDED PRACTICE “We do”
- INDEPENDENT PRACTICE “You do”



# Definitions

## Synthetic

- Teaching *individual sounds*, graphemes directly; teaching blending directly. “Sound it out”.

## Analogy

- Teaching via *patterns*: “This word has the same beginning sound as “moon” and “monkey” and the same ending sound as “sad” and “hid”. This word is “mud”.

NRP (2000): Equal effect.

Newer research: Synthetic better.

# Definitions

## Decodable Text

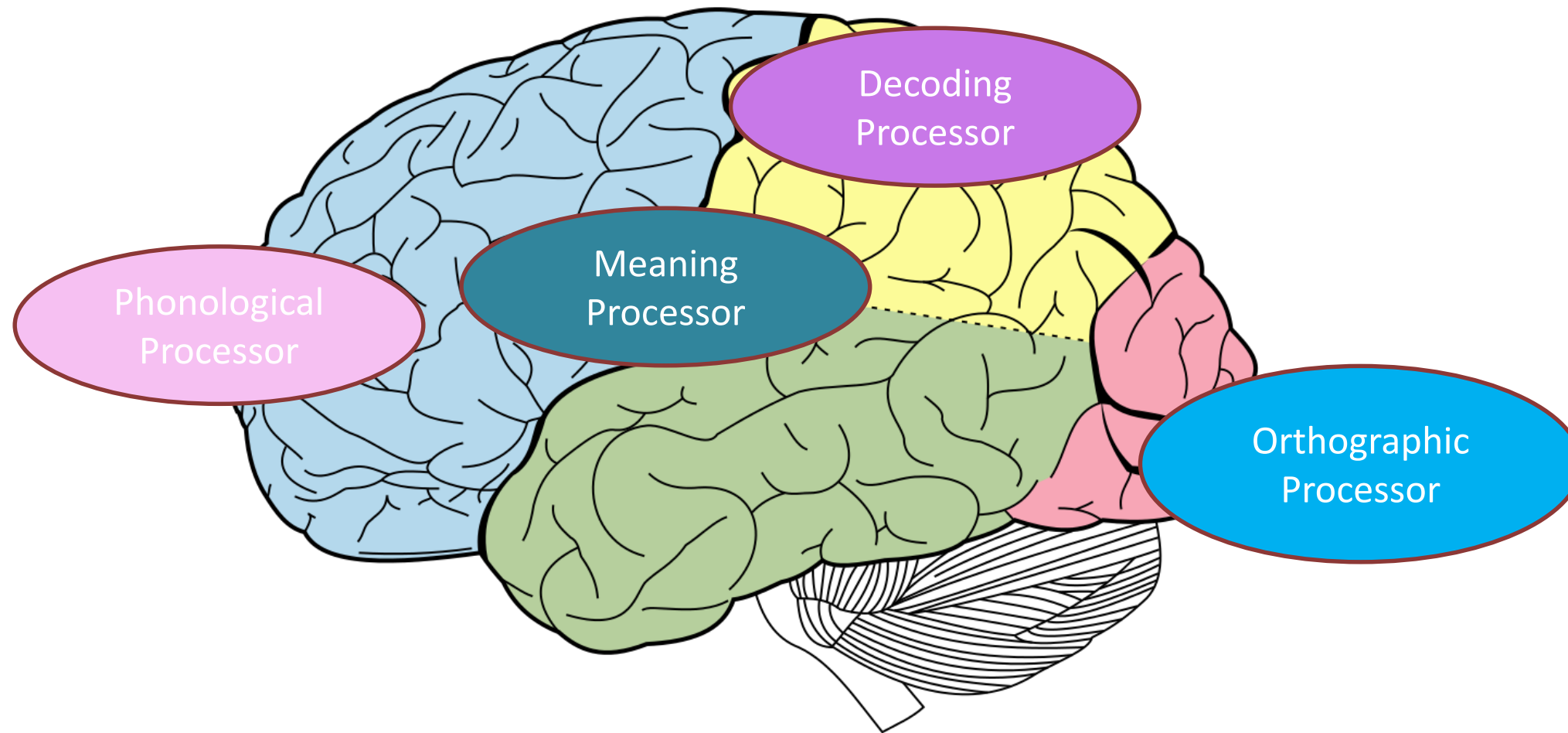
- High proportion of words with *phonetically regular relationships* between letters and sounds.
- Close match between the letter/sound relationships represented in text and those the reader has been taught.

# Research

“...human beings were never born to read.”

Dr. Maryanne Wolf  
Reader Come Home (2018)

# Research



# Research

- Beginning readers *taught* LETTER SOUND RELATIONSHIPS instead of trying to learn whole words as images, increase brain activity in the area best wired for reading.
- Brain responses to newly learned words influenced by HOW they were learned (systematic, explicit, synthetic)

# Research

- Using DECODABLE text in early stages of learning to read provides opportunities for appropriate application/practice which **STRENGTHENS NEURAL CONNECTIONS** for automaticity and fluency.

# Purpose of Phonics

- “Breaks the code” of the speech-to-print process.
- Connects “language comprehension” with “word recognition”.
- Lays the cognitive foundation for “statistical learning” or “self-teaching”.

# Phonics Instruction

- All phonemes (PA- auditory)
- Phoneme-grapheme representation (phonics)

- Orthographic (spelling) patterns

ee meet  
e me  
ea meat  
y funny

ie chief  
ey key  
ei receive  
eo theory  
oe Phoebe  
ae archaeologist  
ix Grand Prix  
i variation



# Phonics Instruction

- All phonemes (PA).
- Phoneme-grapheme representation (phonics).
- Orthographic (spelling) patterns; connect decoding with endcoding.
- Morphology (meaningful units of language: base, roots, affixes).

# Assessing Phonics

- Letter names
- Letter sounds
- Decoding CVC real & nonsense
- Decoding more complex word types (blends, digraphs, multisyllable)
- Encoding (spelling)

# Assessing Phonics: Process

- Screener
  - DIBELS 8<sup>th</sup> Edition
  - Acadience
  - easyCBM
  - AIMSweb
  - others
- Diagnostic
  - Quick Phonics Screener with spelling survey (QPS-3rd edition)
  - CORE Phonics Survey
  - others

# Teaching Phonics

- Teach HIGH-UTILITY sounds; move from “sounds” to “words” quickly to support comprehension.
- Consider speech-to-print format.
- Teach sounds CORRECTLY (continuous blending; “clip” stop sounds). /mmmm//aaaaa//t/ not /m/ /a/ /t/
- Systematic & explicit instruction.

# Teaching Phonics

- Speech-to-print with multimodality practice
  - **ORAL:** Say “mug”
  - **MEANING:** What is a “mug”? etc.
  - **PA** with kinesthetic: How many syllables in “mug”? (students clap)
  - **SEGMENTING** oral with kinesthetic: (My turn; do it with me; your turn) How many sounds in “mug”? (students clap). Let’s say the sounds in “mug”. (hold up 3 fingers, popsicle sticks; sound boxes)

# Teaching Phonics


- Speech-to-print, *continued...*
  - **BLENDING:** What word?
  - **PA → PHONICS:** What SOUND do you hear at the beginning of “mug”? Last sound? Middle Sound? What LETTER represents the /m/ sound?
  - **KINESTHETIC:** Write a “m” on your whiteboard; “u”; “g”
  - **DECODING oral:** Read the word you wrote.
  - **ADVANCED PA:** Erase the “g” and write a “d”. Read the word.

# Phonics Intervention Materials

AVOID “phonics patch”; COMPREHENSIVE Structured Literacy programs best

- K-PALS & Grade 1 PALS
- SPELL-Links to Reading & Writing
- Phonics for Reading (gr. 3-12+)
- *many others*

# Thank you!

Jan Hasbrouck, Ph.D.  
JH Educational Services  
Seattle, WA  
janhasbrouck@gmail.com  
 @janhasbrouck

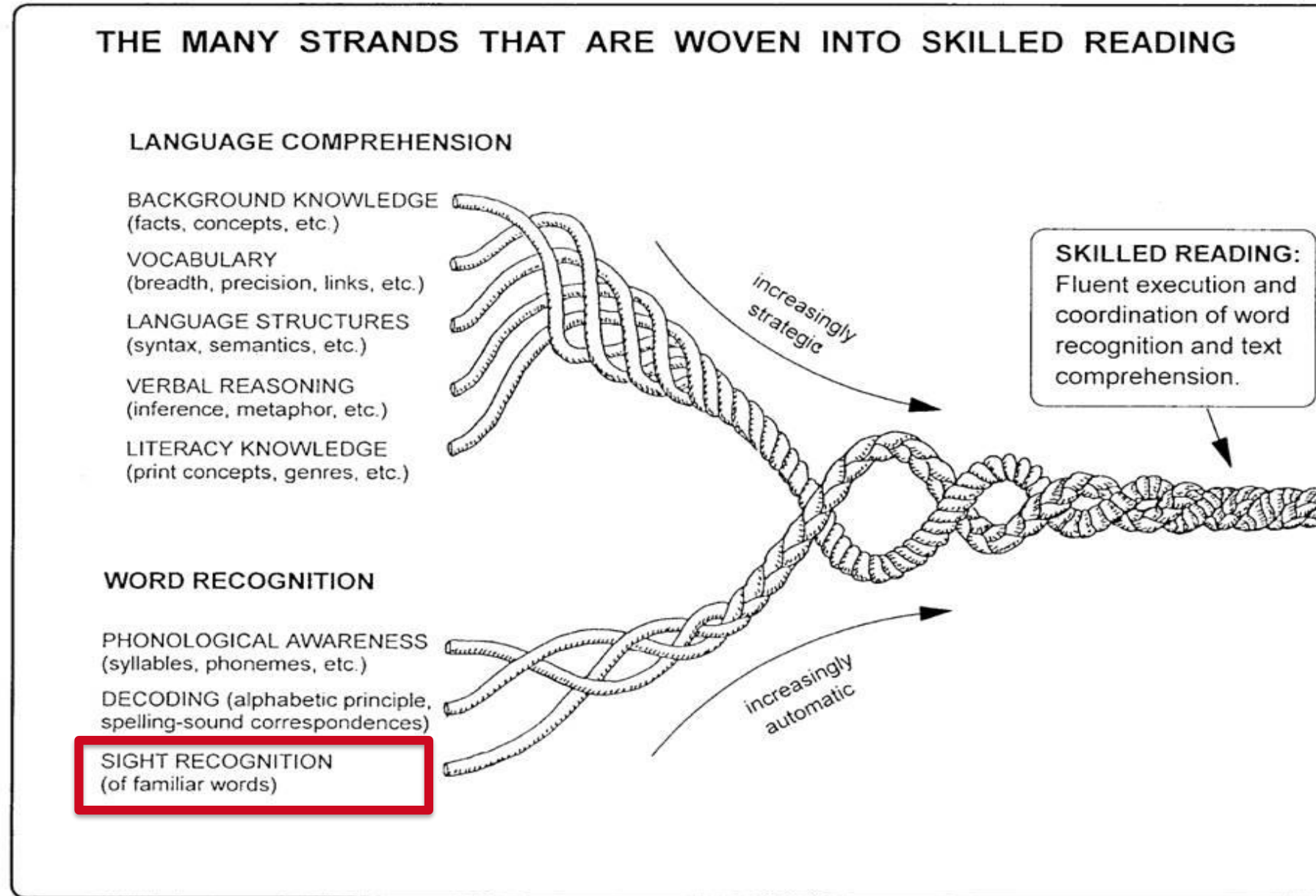


# Sight Word Recognition: Part 3



Jan Hasbrouck, Ph.D.

# Components of Reading



<https://dyslexiaida.org/wp-content/uploads/2018/03/readingrope-2010.jpg>

Scarborough, 2001

# Acknowledgements

## David Kilpatrick

- Essentials of Assessing, Preventing, and Overcoming Reading Difficulties (2015)

## Lyn Stone (Lifelong Literacy; @lifelonglit)

- Spelling for Life: Uncovering the Simplicity and Science of Spelling (April 2021)

## Linnea Ehri and David Share

# Definitions

## Sight Words

- Common usage:
  - Words spelled using irregular phoneme/grapheme patterns (“eye”, “one”, “have”, “was”, “of”, etc.).
  - Words that must be learned by looking at the word and simply memorized as a whole.
- Research-grounded definition: *Any previously learned word recognized instantaneously, precognitively by a reader.*

# Definitions

## Sight Words

Lyn Stone:

Once a reader has a word in their sight word vocabulary, they *cannot suppress* its sound and possible meanings when they come to that word again.

*Having a robust sight word vocabulary is necessary for fluent reading.*

# Definitions

**Irregular word:** The graphemes (letters) used to represent the phonemes (sounds) are not the most commonly-use...or not yet learned.

Temporary (“much”) vs permanent irregular words (“was”)

**High-frequency word:** Those words that appear most commonly in everyday usage. *Some are irregular but most are not.*

*Dolch, Fry*

# Definitions

<b>Word</b>	<b>Dolch Frequency Rank</b>	<b>Fry Frequency Rank</b>
the	1	1
a	5	4
I	6	20
to	2	5
and	3	3
was	11	12
for	16	13
you	7	8
is	22	7
of	9	2

# Definitions

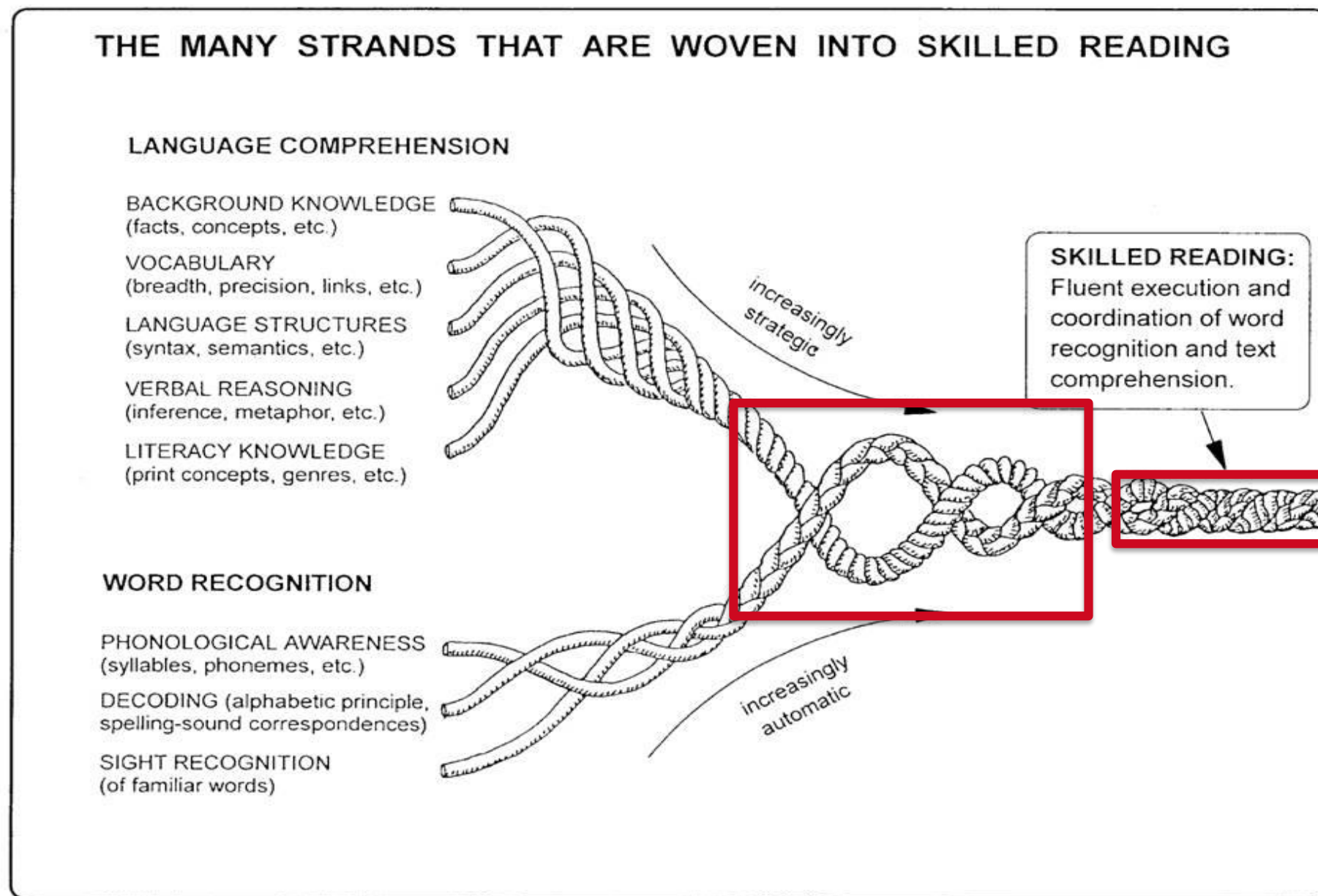
“Irregular” and “high frequency” are *characteristics of the WORD.*

A word is (or is not) a “sight word” *for an INDIVIDUAL READER.*

Glomerulonephritis



# Purpose of Sight Words



<https://dyslexiaida.org/wp-content/uploads/2018/03/readingrope-2010.jpg>

Scarborough, 2001

# Research

- Linnea C. Ehri

(1992). Reconceptualizing the development of sight word reading and its relationship to recoding.

(2014). Orthographic mapping in the acquisition of sight word reading, spelling, memory, and vocabulary learning.

Orthographic mapping: MENTAL PROCESS used to STORE words for immediate, effortless retrieval. Facilitated by strong PA and decoding skills and vocabulary.

# Research

- David L. Share

(1995). Phonological recoding and self-teaching: Sine qua non of reading acquisition.

(2011). On the role of phonology in reading acquisition: The self-teaching hypothesis.

Theory that the process of *sounding out unfamiliar* words directs attention to the word's spelling pattern. The brain takes note of recurring PATTERNS and applies that to future word analysis. 1st identified in human infant language acquisition. "Statistical learning."

# Research

- David A. Kilpatrick (“pulling back the curtains”)

(2015). **Essentials of Assessing, Preventing, and Overcoming Reading Difficulties**

Chapter 4: Understanding Word Recognition Difficulties

(2016). **Equipped for Reading Success:**

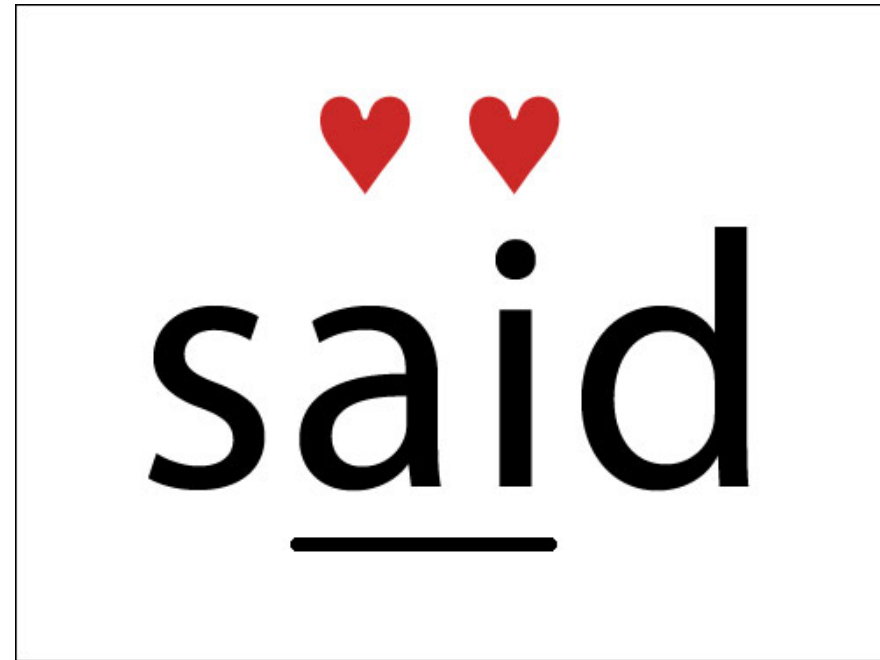
A Comprehensive, Step-by-Step Program for Developing Phoneme Awareness and Fluent Word Reading

# Assessing Sight Words

- Check knowledge of Fry or Dolch lists.
- San Diego Quick (Graded lists of words from early Gr. 1 to Gr. 11).
- Oral passage reading: patterns of errors, hesitations.

**WEAK /BELOW BENCHMARK?** Diagnostic assessments  
PA, basic phonics, language

# Teaching “Sight Words”



Linda Farrell, Michael Hunter, Tina Osenga, *Readsters LLC*

# Teaching “Sight Words”

<https://www.readingrockets.org/article/new-model-teaching-high-frequency-words>

“**Flash Words**”: High-frequency words that are regularly spelled and thus decodable—over time.

138 words (63%) on Dolch 220 List are decodable after **common spelling patterns** have been taught:

VC [am], CVC [cat; dog], digraphs [ship; that],  
blends [slap; frog], -ng/-nk [sink; long]

# Teaching “Sight Words”

<https://www.readingrockets.org/article/new-model-teaching-high-frequency-words>

60 single-syllable words with **more advanced vowel spelling patterns**:

r-controlled [cart]; CV long vowel [so, me]; VCe [ride]; Vowel teams (long vowels) [greet; boat]; Vowel teams (other) [how; new]



# Teaching “Sight Words”

<https://www.readingrockets.org/article/new-model-teaching-high-frequency-words>

**17 two-syllable words and 1 three-syllable word**

# Teaching “Sight Words”

<https://www.readingrockets.org/article/new-model-teaching-high-frequency-words>

## “Heart Words”

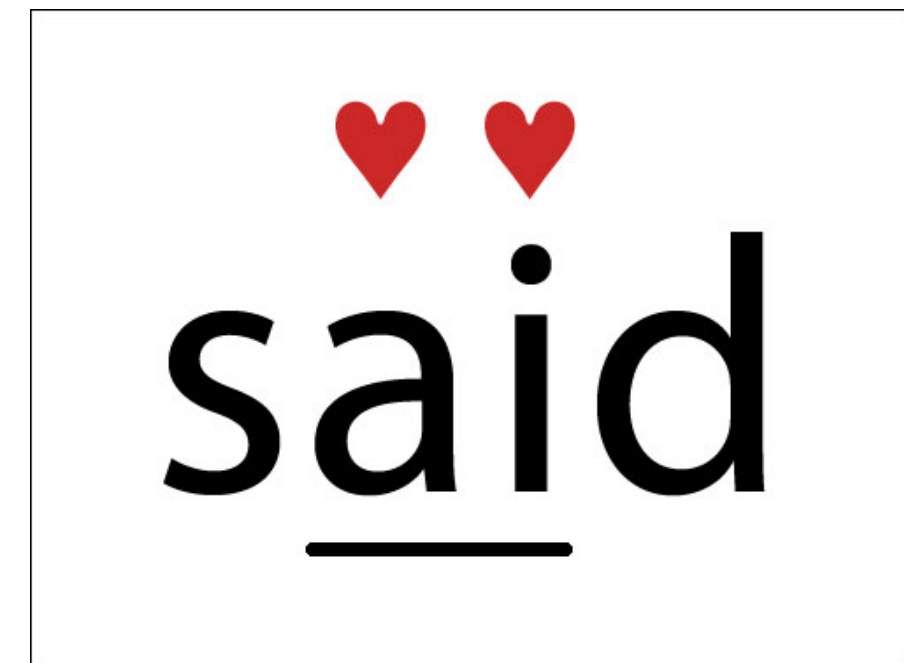
Some **PART** of the word must be “learned by heart”  
[said, one, where]

Dolch 220 List:

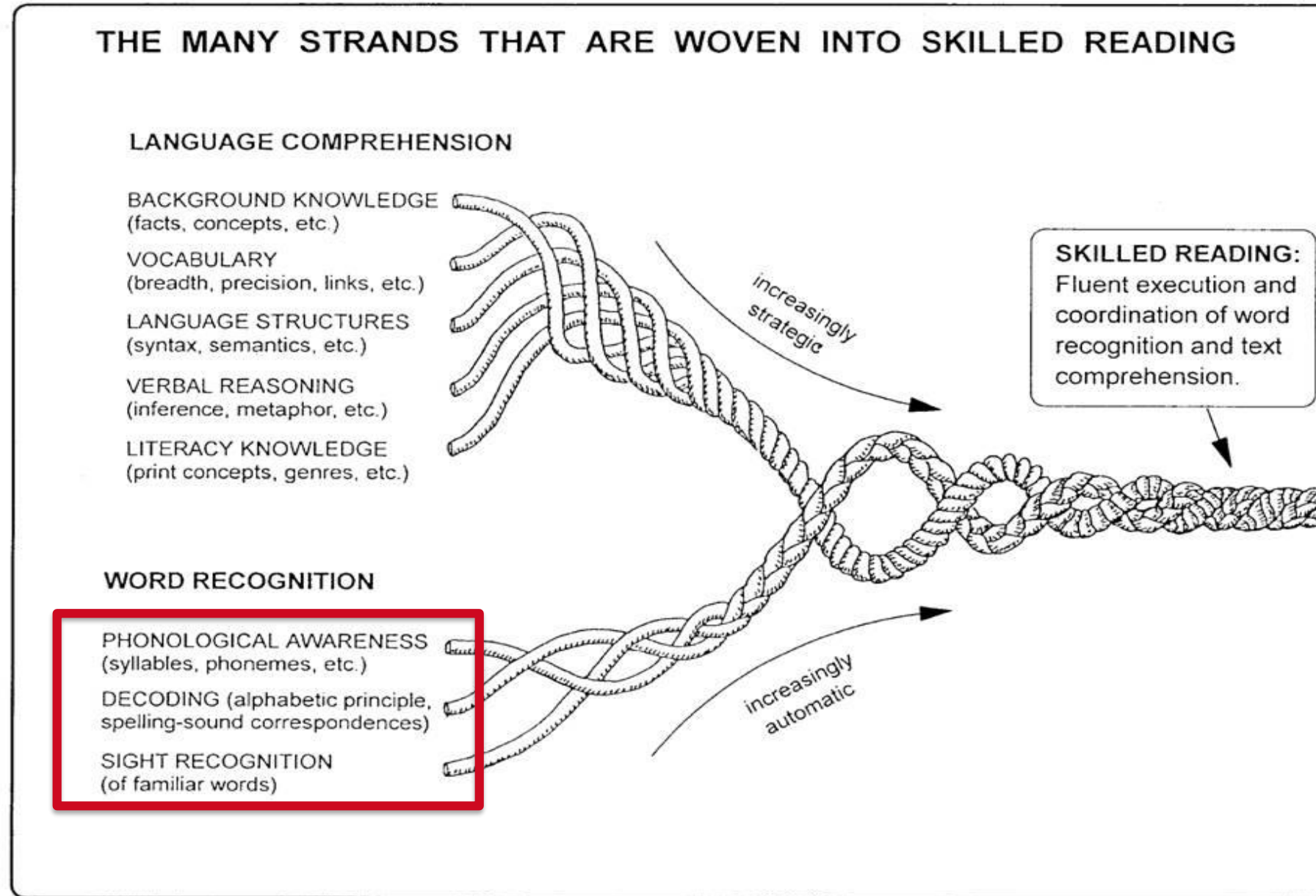
82 Heart Words (37%); 37 not grouped by spelling pattern

# Teaching “Sight Words”

he (1)	very (71)	here (105)	does (154)	use (181)
a (5)	yours (74)	two (122)	goes (156)	carry (194)
of (9)	from (81)	again (126)	write (157)	because (204)
you (7)	don't (87)	who (128)	always (158)	together (214)
was (11)	know (89)	been (129)	only (168)	please (215)
said (12)	pretty (97)	eight (135)	our (171)	shall (219)
they (18)	four (100)	today (137)	warm (176)	laugh (220)
what (46)	their (104)			




# Components of Reading



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