Structured Literacy Approaches for Students with Dyslexia:

A Presentation to the CT Dyslexia Task Force

November 21st, 2019

LOUISE SPEAR-SWERLING, PH.D.

PROFESSOR EMERITA

SOUTHERN CONNECTICUT STATE UNIVERSITY

NEW HAVEN CT

Presentation overview

- Key features of dyslexia, students' intervention needs, and Connecticut legislative requirements
- Characteristics of Structured Literacy interventions
- Knowledge and competencies teachers need in order to implement these kinds of interventions

Definition of dyslexia from the Connecticut State Department of Education

“Dyslexia is included in the Individuals with Disabilities Education Act (IDEA, 2004) as a specific learning disability. Dyslexia impacts reading, specifically decoding and accurate and/or fluent word recognition and spelling. Dyslexia is neurobiological in origin and is unexpected and/or inconsistent with a student’s other abilities despite the provision of appropriate instruction. Dyslexia results from a significant deficit in phonological processing … Typically, students with dyslexia have strengths … in areas such as reasoning, critical thinking, concept formation, problem solving, vocabulary, listening comprehension, and social communication. Early identification and appropriate instruction targeting the underlying phonological processing deficits that characterize dyslexia may minimize its educational impact” (CSDE Working Definition of Dyslexia, 2014).

Key features of dyslexia

- Central problem: learning to decode and spell printed words
- Usually based in phonological processes
- Broad oral language comprehension usually average or higher
- Students' broad intelligence also usually average or higher

(Fletcher, 2009;Fletcher et al., 2018; Shaywitz, 2003; Siegel, 1999; Stanovich, 2000)

Introduction: Key features of dyslexia (continued)

- Dyslexia involves an "unexpected" reading difficulty that is not primarily due to another disability or to experiential factors, such as English learner status, limited experience with language/literacy, or inadequate instruction

Key features of dyslexia (continued)

- Core deficit is relatively circumscribed but can have secondary effects on many areas, e.g., reading comprehension, written expression, content learning, motivation
- Reading comprehension usually good in texts the student can decode well
- Very common disability, 1 in 20 children even by more conservative estimates
- Dyslexia is one of several possible SLDs in reading

Intervention needs of students with dyslexia

- Explicit, systematic teaching that targets their core weaknesses in phonemic awareness, phonics, spelling, fluency
- Children with dyslexia do not appear to require a qualitatively different approach to intervention than other poor decoders, but they often need significantly more intensity
- Means, e.g.: more explicitness, more teacher scaffolding/modeling, more opportunities for practice, smaller group size, more intervention time

(Fletcher et al., 2018; Torgesen, 2004; Torgesen et al., 2001)

Intervention needs (continued)

- Ample practice reading texts is another key component of effective interventions (Kilpatrick, 2015; Vadasy et al., 2005)
- Early identification/appropriate intervention important to good outcomes
- Example: accuracy vs. fluency outcomes (Torgesen et al., 2001; Wexler et al., 2010)

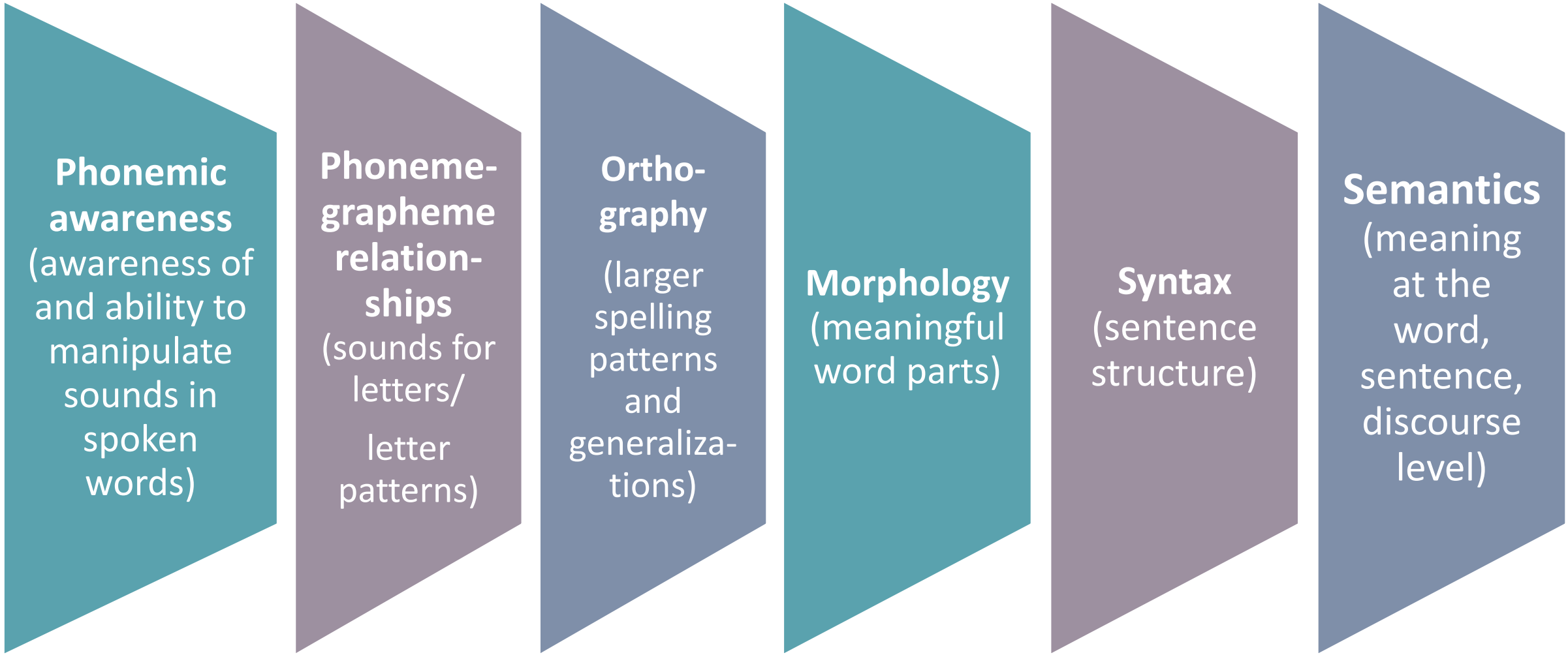
Connecticut legislative requirements

1. Any program of teacher preparation leading to professional certification shall include, as part of the curriculum, instruction in literacy skills and processes that reflects current research and best practices in the field of literacy training. Such instruction shall (1) be incorporated into requirements of student major and concentration, and (2) on and after July 1, 2015, include not fewer than twelve clock hours of instruction in the detection and recognition of, and evidence-based **structured literacy** interventions for, students with dyslexia. (Public Act 15-97).

2. Certified employees applying for a comprehensive special education or integrated early childhood and special education endorsement, remedial reading, remedial language arts or reading consultant endorsement to complete a program of study in the diagnosis and remediation of reading and language arts that includes supervised practicum hours and instruction in the detection and recognition of, and evidence-based **structured literacy** interventions for, students with dyslexia. (Public Acts 17-3 and 16-92).

Structured Literacy is a term for a group of intervention approaches, models, curricula, and materials that share **specific instructional content** and **specific instructional features**.

Content of Structured Literacy: Language (IDA, 2019)

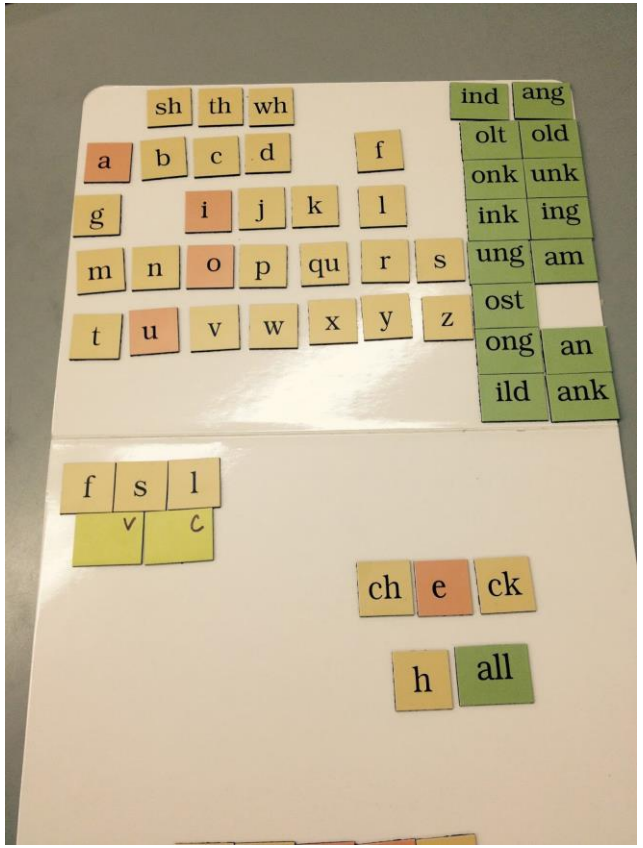


Some principles and methods of Structured Literacy (IDA, 2019)

- Explicit teaching of important concepts and skills; teacher models and demonstrates
- Children not expected to infer key concepts/skills solely from exposure or from incidental teaching as the need arises
- Systematic teaching that follows a planned scope-and-sequence from easier to more difficult skills/concepts

Some principles and methods of Structured Literacy (continued)

- Attention to prerequisite skills (e.g., teach sounds for letter patterns such as *sh, th, qu, all,* before expecting children to read them in words)
- Hands-on, engaging, multimodal instruction (e.g., use of letter tiles to build patterned words; counters/blocks in PA activities



Phonics interventions in Structured Literacy approaches use explicit, systematic, synthetic phonics in initial instruction

(e.g., Brady, 2011; Christensen & Bowey, 2005; Foorman et al., 2016; Gersten et al., 2008)

A brief digression on different phonics approaches

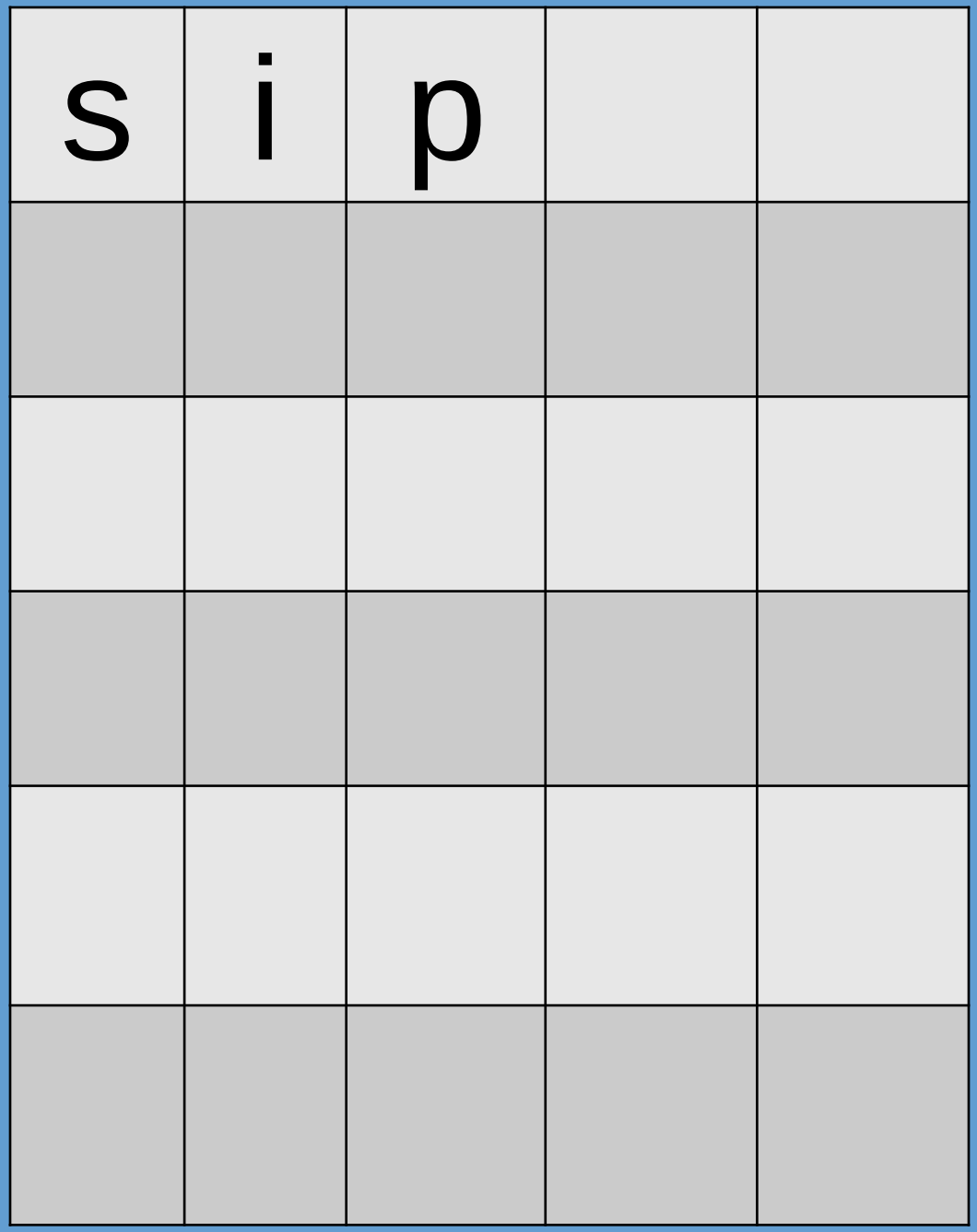
- Analytic/analogy: Initial focus is on analyzing whole words (often patterned words, e.g., decode *stack* by comparison to *back, sack, shack*)
- Onset-rime: Initial focus is on learning sounds for common onsets and rimes and how to blend them, e.g., *st-ack, ch-ill, fl-ake*
- Synthetic phonics: Initial focus is on learning grapheme-phoneme relationships and how to blend phonemes into whole words
- Post-NRP research favors explicit, systematic synthetic phonics (Brady, 2011; Christensen & Bowey, 2005)

Synthetic phonics, initial phoneme level approach

- *Example*: to decode *stack*, children learn sounds for the graphemes *s, t, a, ck*, and how to blend them
- Instruction in phoneme awareness (e.g., phoneme blending and segmentation) is integrated with decoding and spelling
- As children progress beyond the earliest stages of reading, must teach larger units such as common vowel patterns (e.g., *ee, all, igh*), vowel with r (*ar, er, ir*), and common morphemes (e.g., *-ing, -ed, -ness*)

Sample SL activity: Word building (e.g., McCandliss et al., 2003)

- Use letter tiles with letters and letter patterns representing phonemes (e.g., *sh, ck, ch*)
- Use only letters/letter patterns children have been taught
- Form a sequence of words with random phoneme changes (not always the first letter/phoneme in a word); no irregular words
- Try to achieve a brisk pace; do *lots* of words
- Gamelike activity that is very engaging for many children if done well
- Can also do this as a paper-and-pencil activity, phoneme-grapheme mapping


s i p

s	i	p		
s	a	p		

s	i	p		
s	a	p		
l	a	p		

s	i	p		
s	a	p		
l	a	p		
l	a	sh		

s	i	p		
s	a	p		
l	a	p		
l	a	sh		
l	u	sh		

s	i	p		
s	a	p		
l	a	p		
l	a	sh		
l	u	sh		
f	l	u	sh	

The sequence of instruction in SL considers the phonological demands of words (e.g., which phonemes are easiest to blend)

EASIER (CONTINUOUS SOUNDS)	HARDER (STOP SOUNDS)
sun	dug
ram	cap
fish	chop
smell	skid

Spelling in Structured Literacy approaches

- Like decoding, spelling is taught explicitly and systematically
- Interventions use a planned, structured sequence of easier to more complex types of words
- Decoding and spelling are integrated so that each reinforces the other

In SL, **language-related** knowledge would be taught to help children spell words correctly. This includes **phoneme-grapheme knowledge, orthographic knowledge**, **knowledge about morphology,** and **semantic knowledge**

(e.g., Apel, Masterson, & Brimo, 2014; Moats, 2019).

Linguistic knowledge needed to spell words in English

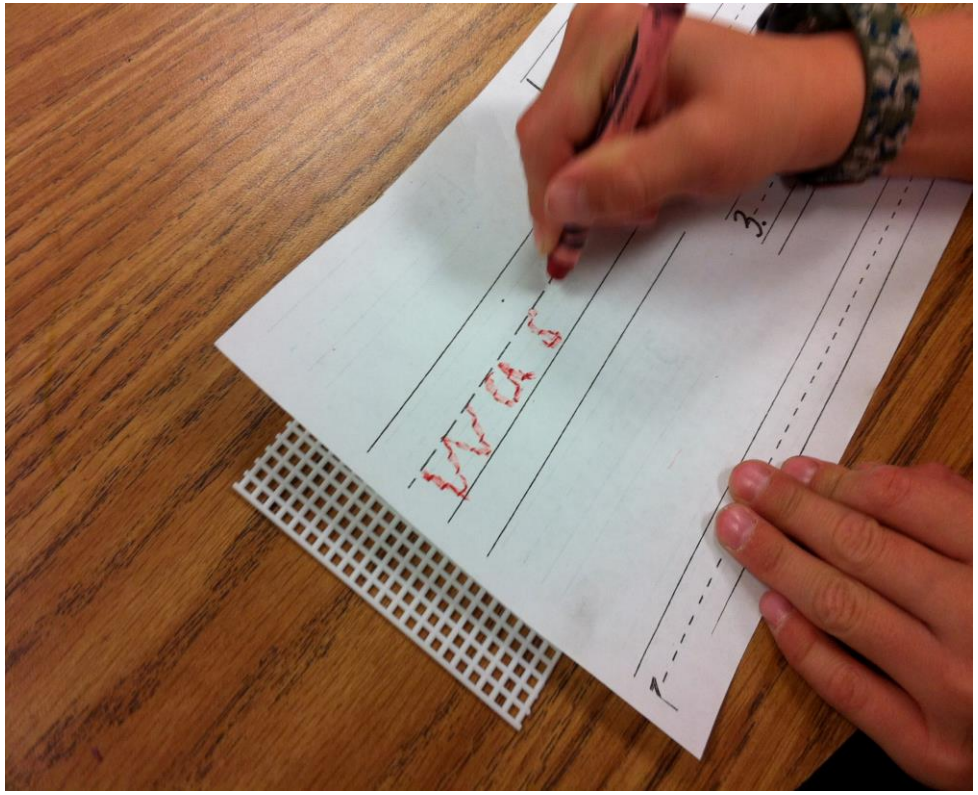
LINGUISTIC KNOWLEDGE	EXAMPLES OF WORDS
Basic phoneme-grapheme correspondences	sun, bit, mash, stump, pond
Orthographic patterns and generalizations	fill, sniff, track, hutch, budge
Morphological knowledge and word origins	dogs, jumped, telescope, psychology, crochet
Semantic knowledge	to, two, too

Example: integration of decoding and spelling in SL approaches (beginner level)

- Some practice words for decoding CVC words with *a* and *i*: *map, nag, hit, cab, lip, tap, wig*
- For spelling, use same category but different practice words
- Some practice words for spelling CVC words with *a*: *tag, nip, sat, mad, bit, win, lab*
- Teacher must filter out words like *bay, car, jaw,* and *was*
- Point is to develop decoding and encoding skill on any regular CVC word, not just whether the child can decode/spell these particular words

How would phonetically irregular (exception) words be taught in an SL approach?

- Multisensory whole-word tracing techniques can be very helpful
- *Example*: children trace *was* repeatedly
- While tracing, children say letter names then the whole word, e.g., "w-a-s, was; w-a-s, was …"
- Activity draws child's attention to the sequence of letters in the word



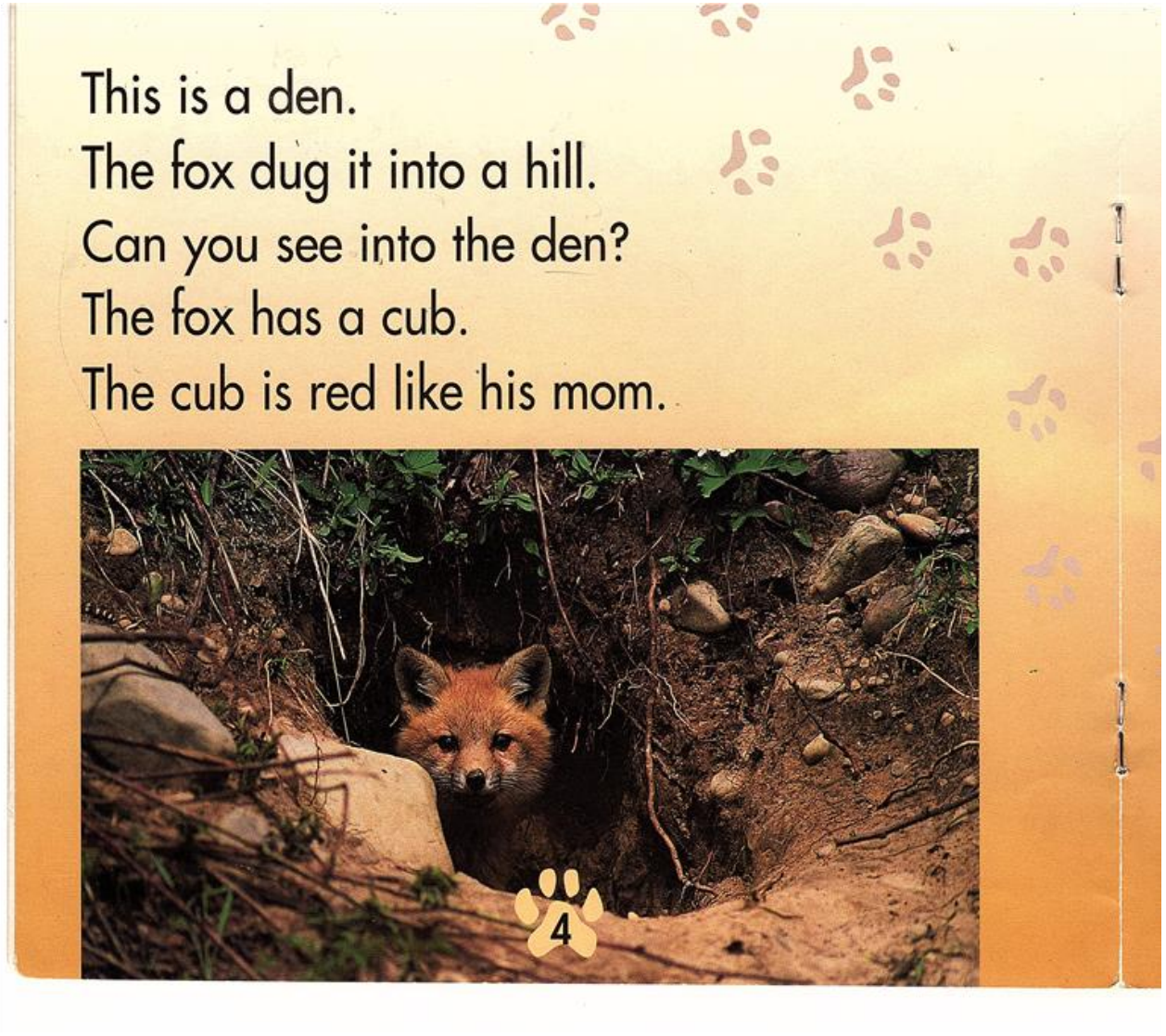
How would phonetically irregular words be taught? (contd)

- After repeated tracing and saying, children try to write the word from memory; if a mistake is made, repeat the tracing/saying process
- Learned words go into a file for ongoing review
- Also useful to point out the specific irregularity in the word
- Many irregular words are mostly regular, except for one part of the word, often the vowel, e.g., *was, done, some, come, pretty, shall*
- Therefore phonics knowledge is still helpful for these words (Seidenberg, 2017)

In a Structured Literacy approach, beginning decoders read texts that provide a good match to the decoding skills they have learned and that do not facilitate or encourage guessing words based on picture or sentence context.

Example of a decodable text for beginning decoders, about early Grade 1 level (CVC words, all vowels).

From *Red Fox Cub*. Series: The Wright Skills, Decodable Series, Level A Review.

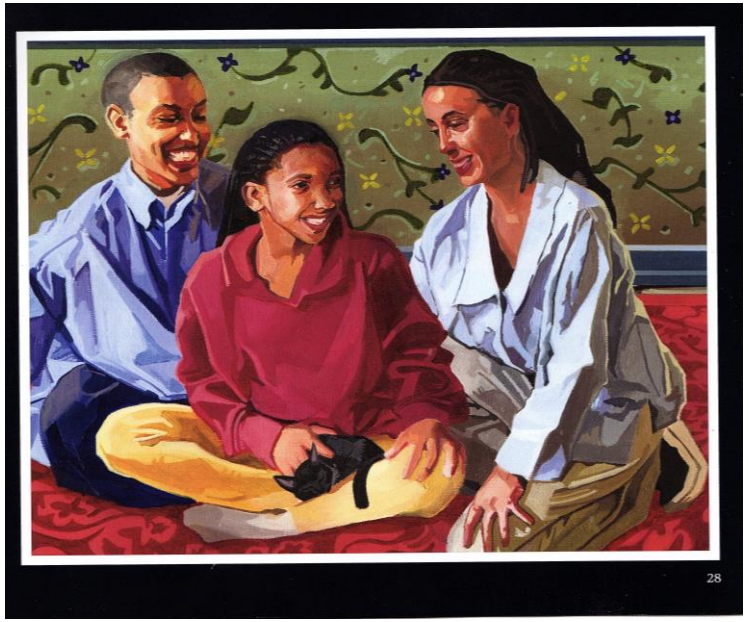


Example of a decodable text for beginning decoders, about mid Grade 1 level (short vowel words with blends and digraphs). From *Jen's Best Gift Ever*. Series: Flyleaf Books to Remember, Reading Series 1.

Frolic runs and jumps and flips and spins until he has to rest. Jen lifts him onto her lap.

She thanks Mom and Dad.

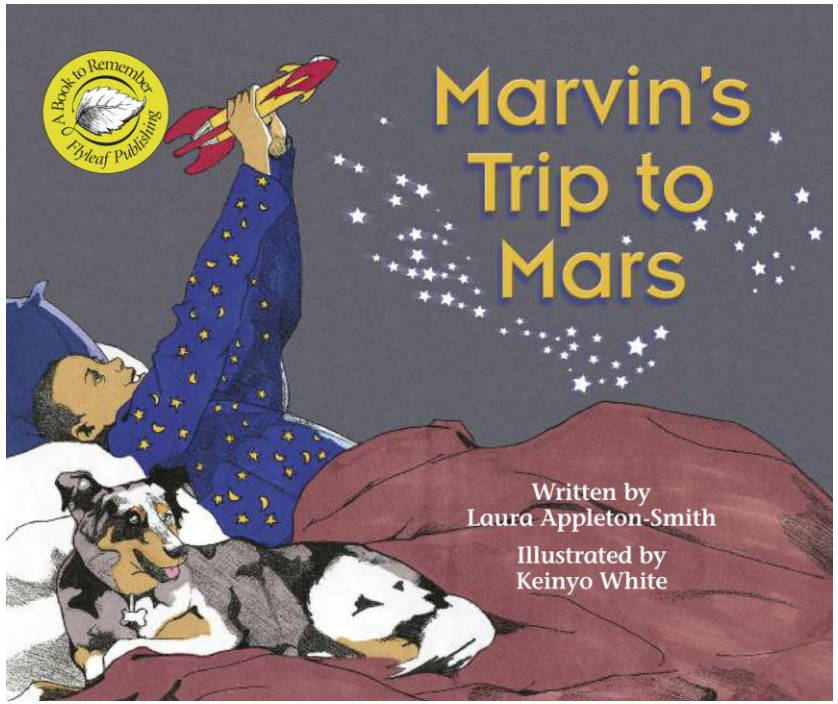
A kitten is the best gift Jen has ever had.



In an SL approach, teachers provide feedback to children's decoding errors that focuses their attention first on the printed word and application of decoding skills, not on concurrent use of sentence or picture context to read words.

Example of teacher feedback to decoding errors in Structured Literacy approaches

Consider the following sample decodable text:



"Hop up, Marvin. You can bring your rocket to bed," Mom tells Marvin as she pulls back his quilt.

"When I am big I will blast off in a rocket. I will visit the planets and stars," Marvin tells Mom as she tucks him in tight.

(From *Marvin's Trip to Mars*,
Laura Appleton-Smith, Flyleaf Books)

Sample Teacher Feedback to Decoding Errors

"Hop up, Marvin. You can bring your rocket to bed," Mom tells Marvin as she pulls back his quilt. [Child pauses briefly at word, glances at picture, quickly says "blanket."]

[picture accompanies text]

SL teacher's feedback:

- Waits a moment to see if child will try to self-correct
- Child keeps going; teacher points to the word *quilt*
- Child looks more closely at word but produces *quit*
- Teacher points to the letter *l*
- Child successfully decodes *quilt*
- Teacher says, "Great job! Now, just re-read that sentence."

A sequence for teacher feedback to children's decoding errors:

- Allow a little wait-time
- If child does not self-correct, provide pointing cues
- Follow up with concise verbal cues if needed
- Telling the child the word generally a last resort
- After decoding: Child re-reads sentence for fluency and comprehension, including checking to ensure word makes sense
- Note: Child is expected to read words accurately, including words such as *a, the, his,* etc.

(Heubusch & Lloyd, 1998; Spear-Swerling, 2018)

Some examples of common literacy activities and approaches that are not Structured Literacy

Word configuration activities (word shapes)

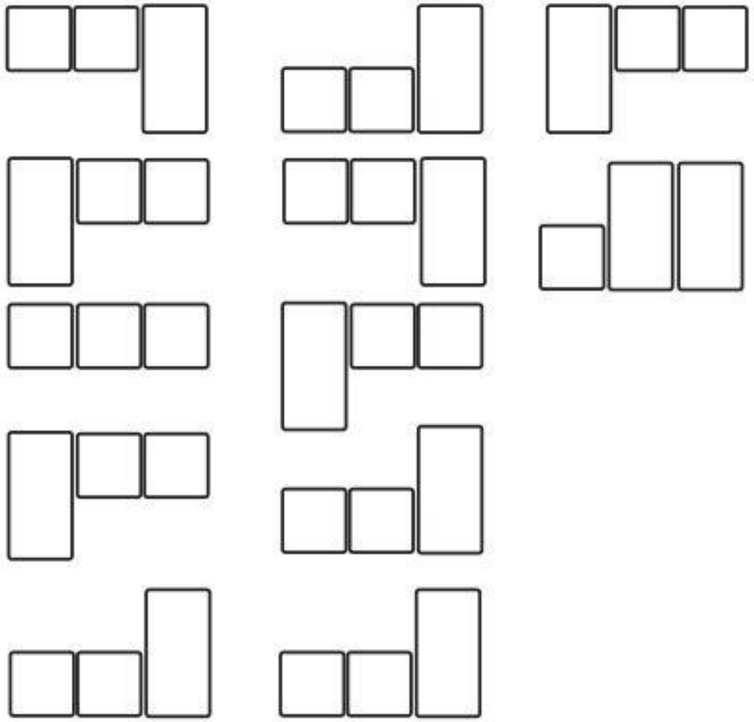
Name: ____________________ Date: __________

LiteracyPlanet WORD MANIA

WORD SHAPES

Word List

rag	pun	nap	pea	ran	nod
rat	pen	pin	rod	nit	ill

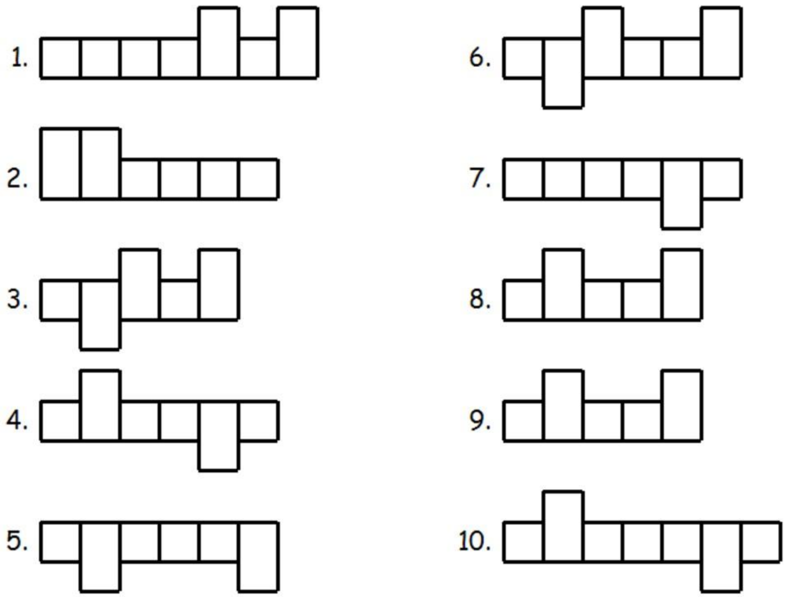


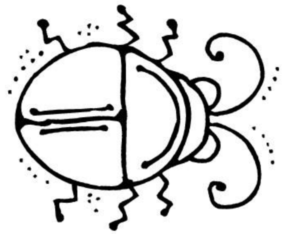
Name____________________

Word Shapes

Directions: Write the spelling words in the correct boxes below.

scratch	scrape	spring	throne	stripe
strange	shred	shrub	splash	split





Emphasis on “multiple cueing systems” for reading words

Another Brief Digression: The "Multiple Cueing Systems" (MSV) Model of Reading

- Says that children become good readers by using multiple cues to read words
- Visual/graphophonic cues (i.e., letter sounds)
- Semantic cues (meaning)
- Syntactic cues (sentence structure)
- If children come to a word they cannot read when reading text, they are encouraged to use letter cues coupled with picture/sentence context, rather than first looking carefully at the entire word and applying phonics skills

Examples of commonly taught multiple-cueing/MSV strategies for word reading:

(from Emily Hanford, APM Reports, *At a Loss for Words*, https://www.apmreports.org/story/2019/08/22/whats-wrong-how-schools-teach-reading)

Why is this a particular problem for students with dyslexia?

- Encouragement to guess at words from context distracts children from close attention to the print
- This is very problematic for developing skilled, fluent reading
- Especially problematic for children with dyslexia, because they have weak decoding and often are inclined to over-rely on context cues
- Guessing based on context does not work well for advanced types of texts
- Even if phonics is being taught well in intervention, if children do not learn to look carefully at words when reading text, this will tend to undermine their reading progress

“Multiple cueing systems” approaches may sometimes also influence scoring of assessments, especially informal assessments of children’s text reading.

Two different approaches to scoring text reading errors

Non-SL practices: May overlook "contextually appropriate" errors such as *a* for *the*, *this* for *that*, *mom* for *mother*, etc.

These kinds of "miscues" viewed as unimportant because they do not greatly alter meaning

Structured literacy approaches: With very few exceptions, all word reading errors count

Exceptions: errors due to articulation, dialect, or foreign accent

Accurate text reading key for building fluency

"Minor" errors do affect comprehension (Daane et al., 2005)

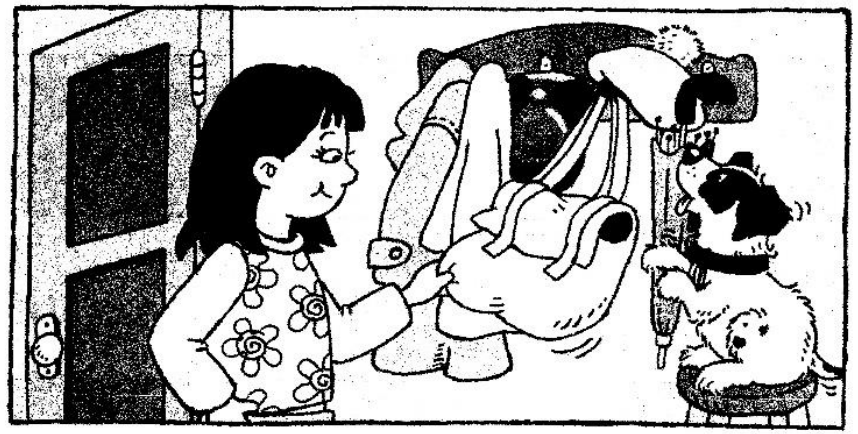
Ignoring certain text reading errors in scoring assessments can provide a false picture of how well students with dyslexia are performing and may lead to faulty decision-making for these students.

Use of predictable texts

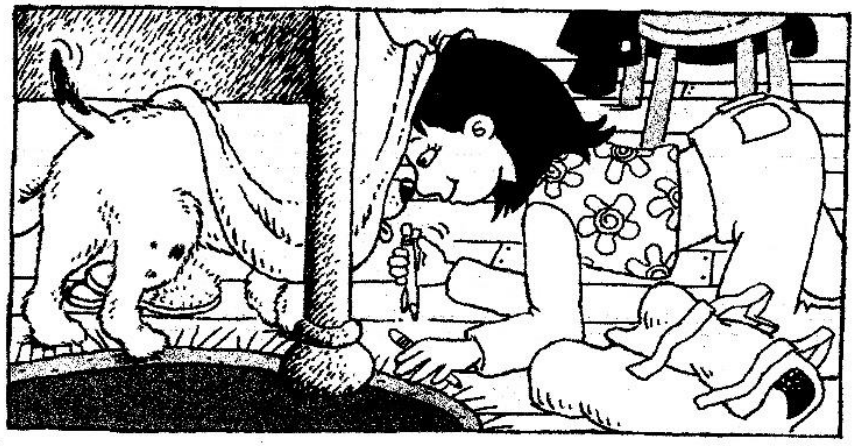
- Beginning and struggling decoders often placed for text reading in predictable leveled texts
- These texts tend to contain many words that weak decoders are unable to decode
- This does not give weak decoders opportunities to apply their decoding skills in text reading
- These texts also tend to foster a habit of guessing at words based on pictures or sentence context

From *Maria Goes to School*, Leveled Book A, Reading A-Z, www.readinga-z.com/books/leveled-books/

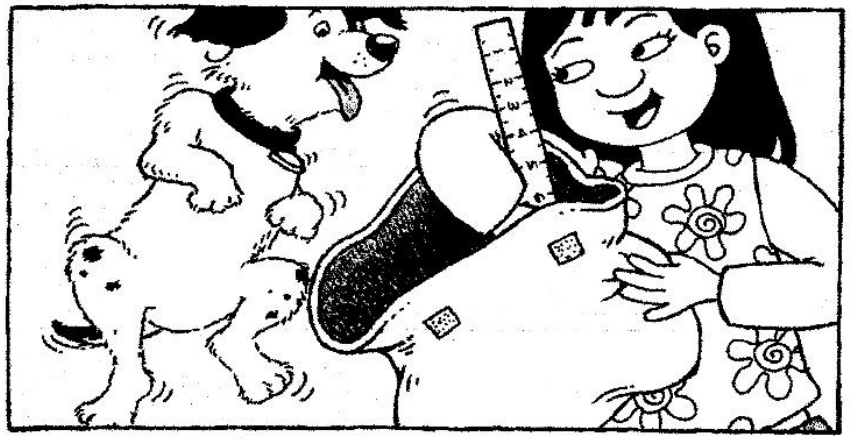
(Site also has some very good decodables.)



I get my backpack.

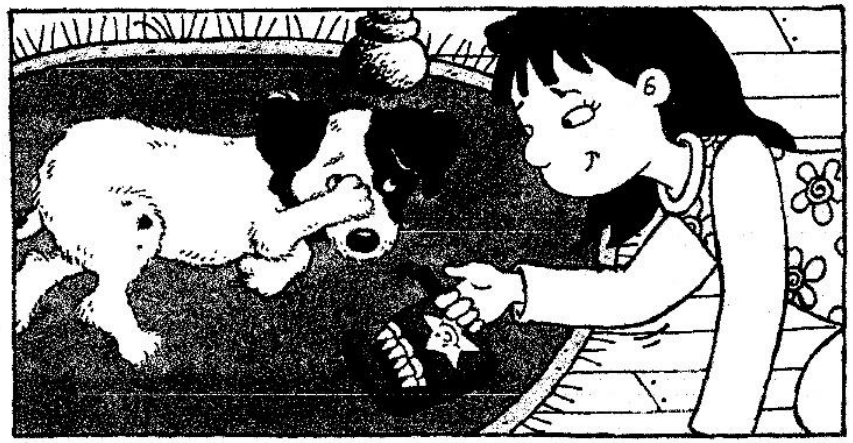


I get my pencils.

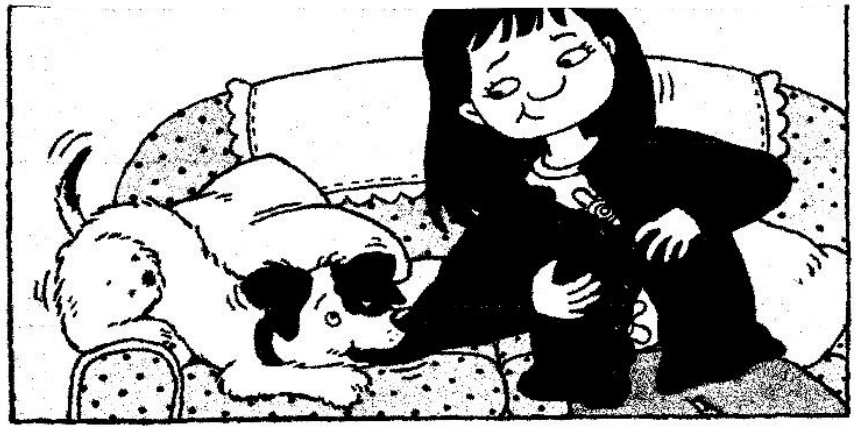


I get my ruler.

I get my eraser.



I get my crayons.



I get my sweater.

It is important to distinguish using context cues to **read** words vs. to **aid comprehension.**

Mary has two cats. When they go to sleep, they like to snuggle up to each other.

- A child cannot read the word *snuggle*. She uses the first couple of letters combined with the picture and/or sentence context to try to read the word. **This is using context to aid decoding.**

- A child can read the text, including the word *snuggle*, but does not know what *snuggle* means. She uses sentence context and/or the picture to figure out what the word means (i.e., move into a warm, comfortable position). **This is using context to aid comprehension.**

Two different uses of context

Good readers do not rely heavily on context **to aid decoding.**

Good readers do use context **to aid comprehension**, e.g., to figure out unfamiliar word meanings or multiple meanings of words.

Do some children learn to read well with non-SL practices?

- Yes.
- However, these kinds of practices are a poor fit for students with dyslexia.
- Structured Literacy (SL) approaches are a much better fit for these students, which is why they are highlighted in dyslexia legislation.

Summary: Core features of SL approaches reviewed here

- PA and phonics skills are taught explicitly and systematically, with a planned sequence of skills building from simpler to more complex, and with attention to important prerequisite skills
- Sequencing includes attention to the phonological demands of words (e.g., number of phonemes, phonemes that are easier/harder to blend)
- Phonics intervention uses a synthetic-phonics approach with initial instruction beginning at the phoneme level (larger units taught later)
- Children read texts that facilitate application of learned decoding skills rather than guessing based on context
- Teacher feedback to decoding errors encourages careful attention to the series of letters in a word, not concurrent use of context cues

Summary (continued)

- When reading text, children are expected to read words correctly; errors are not ignored because they are contextually appropriate
- Decoding instruction does not stop with one-syllable words; skills needed for decoding more complex multisyllabic words (e.g., morphology, strategies for separating long words into manageable parts) also are directly taught
- Explicit, systematic spelling instruction is integrated with decoding intervention so that each reinforces the other
- Language knowledge taught for spelling includes phoneme-grapheme, orthographic, morphological, and semantic knowledge, as well as knowledge about word origins

What kinds of knowledge and competencies do teachers need in order to implement SL approaches effectively?

Knowledge and Practice Standards for Teachers of Reading (IDA, 2018)

Examples of standards for effective implementation of SL approaches

1.1 Understand the 5 language processing requirements of proficient reading and writing: phonological, orthographic, semantic, syntactic, discourse.

2.3 Identify the distinguishing characteristics of dyslexia.

3.7 Know how to read and interpret the most common diagnostic tests used by psychologists, speech-language professionals, and educational evaluators.

4A.1 Understand/apply in practice the general principles and practices of structured language and literacy teaching, including explicit, systematic, cumulative, teacher-directed instruction.

4A.2 Understand/apply in practice the rationale for multisensory and multimodal language-learning techniques.

4B.4 Know/apply in practice considerations for the progression of phonemic-awareness skill development, across age and grade.

4C.1 Know/apply in practice considerations for the structure of English orthography and the patterns and rules that inform the teaching of single-and multisyllabic regular word reading.

Examples of standards for SL (continued)

4C.2 Know/apply in practice considerations for systematically, cumulatively, and explicitly teaching basic decoding and spelling skills.

4C.6 Know/apply in practice considerations for teaching irregular words in small increments using special techniques.

4C.7 Know/apply in practice considerations for systematically teaching the decoding of multisyllabic words.

4C.8 Know/apply in practice considerations for the different types and purposes of texts, with emphasis on the role of decodable texts in teaching beginning readers.

4E.3 Know/apply in practice considerations for the role and characteristics of indirect (contextual) methods of vocabulary instruction.

4E.4 Know/apply in practice considerations for the role and characteristics of direct, explicit methods of vocabulary instruction.

4G.3 Know/apply in practice considerations for research-based principles for teaching written spelling…

For the full KPS document:

Please see https://or.dyslexiaida.org/wp-content/uploads/sites/20/2018/10/ida-standards2018.pdf

For additional examples of Structured Literacy approaches in various domains:

Please see the Summer 2019 theme issue of Perspectives on Structured Literacy at https://dyslexiaida.org/perspectives/

Thank you.

Contact information:

SPEARSWERLL1@southernct.edu