Response to Intervention (RTI) with Secondary Students

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Response to Intervention (RTI)

- A systematic way of
  1. providing high-quality instruction/ intervention matched to student needs *and*
  2. using learning rate over time and level of performance *to*
  3. make important educational decisions

- Need for extensive research regarding appropriate interventions for adolescent struggling readers and understanding RTI at the secondary level

(National Association of State Directors of Special Education [NASDSE], 2005; Vaughn et al., 2009)

Essential Understandings of RTI

We can effectively teach all children if we:

- Intervene early
- Use a multi-tier model of service delivery
- Use research-based, scientifically validated interventions/instruction
- Monitor student progress to inform instruction
- Use data to make decisions
- Use assessments for three different purposes: (1) screening; (2) diagnostics; and (3) progress monitoring

(NASDSE, 2005)

Adolescent Struggling Readers

- More than 8 million students in grades 4-12 are struggling readers (Perie, Grigg, & Donahue, 2005)
- The readability level of some text can result in comprehension challenges for many struggling secondary readers (Mastropieri, Scruggs, & Graetz, 2003)
- High school students in the lowest 25% of their class are 20 times more likely to drop out than the highest-performing students (Carnevale, 2001)
- About half of high school graduates enroll in remedial courses in postsecondary education (ACT, 2005)

What do we know about literacy instruction for struggling adolescents?

- IES (2008) recommendations for adolescent literacy:
  1. Provide explicit vocabulary instruction.
  2. Provide direct and explicit comprehension strategy instruction.
  3. Provide opportunities for extended discussion of text meaning and interpretation.
  4. Increase student motivation and engagement in literacy learning.
  5. Make available intensive individualized interventions for struggling readers that can be provided by qualified specialists.
- Scammacca et al. (2007)
- Edmonds et al. (2009)

Guiding Questions

1. How does RTI look different at the secondary level vs. the elementary level?
2. Do we think that secondary students with reading difficulties can meet grade level reading expectations? Can they close the gap?
3. If so, how do we make up for such low language, low cognitive ability, and background knowledge in a 50 minute period?
4. Besides reading interventions/outcomes, are there other independent/dependent variables we should address?

Implications of RTI Practice for Secondary Students with Reading Difficulties

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1. It Is Not Too Late

Interventions are Effective

- **Adolescence is not too late to intervene**
- Older students with learning disabilities benefit from reading intervention when it is appropriately focused

Teachers can provide interventions that are associated with positive effects

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

Interventions

- Research-based, use scientific reasoning
- What Works Clearinghouse, www.whatworks.ed.gov
- Use a research based "program" with a systematic scope and sequence to ensure **word study is taught systematically with repetition** (for students needing word study)

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

What are the features of effective instruction?

1. Explicit instruction
2. Systematic instruction
3. Use of scaffolding
4. Intensity
5. Time on task
6. Flexible grouping
7. Ongoing progress monitoring
8. Supporting instruction
9. Motivation

Vaughn, 2010

2. Instructional Components

Essential Reading Components

Component	Elementary	Secondary
Phonemic Awareness	✓	
Word Study	✓	✓ (Advanced)
Fluency	✓	✓
Vocabulary	✓	✓
Comprehension	✓	✓
Motivation	✓	✓

Instruction Components

- We must teach students:
  1. The knowledge and skills required to read unknown words in text
  2. How to accurately recognize many thousands of words "at a single glance"
  3. How to understand the meanings of the words they will be encountering in their reading material
  4. How to "think about meaning" as they are reading the words, so they can comprehend

- To better understand instructional conditions that could close the reading gap for struggling readers, we need studies that provide instruction for **significant periods of time** and **assess outcomes across reading areas** including comprehension, vocabulary, and knowledge acquisition

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

3. Remediation

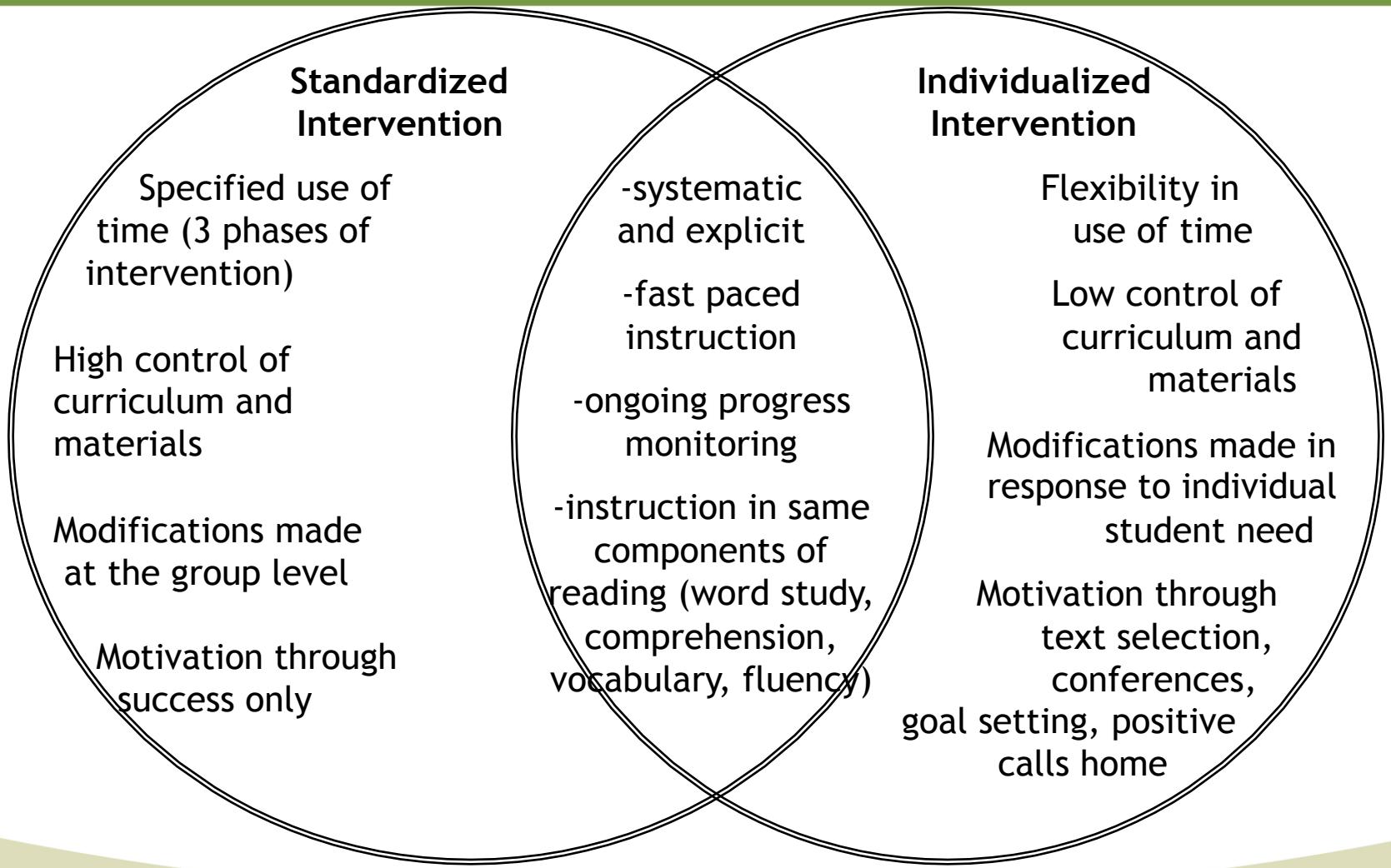
Remediation

- We can expect that remediation of students with significant reading problems who are in Grades 6 and older **is likely to take several years**

- Require more comprehensive models with extensive interventions that are **longer in time and in duration, with smaller groupings, and vary in emphasis** based on specific students' need

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

Standardized vs Individualized



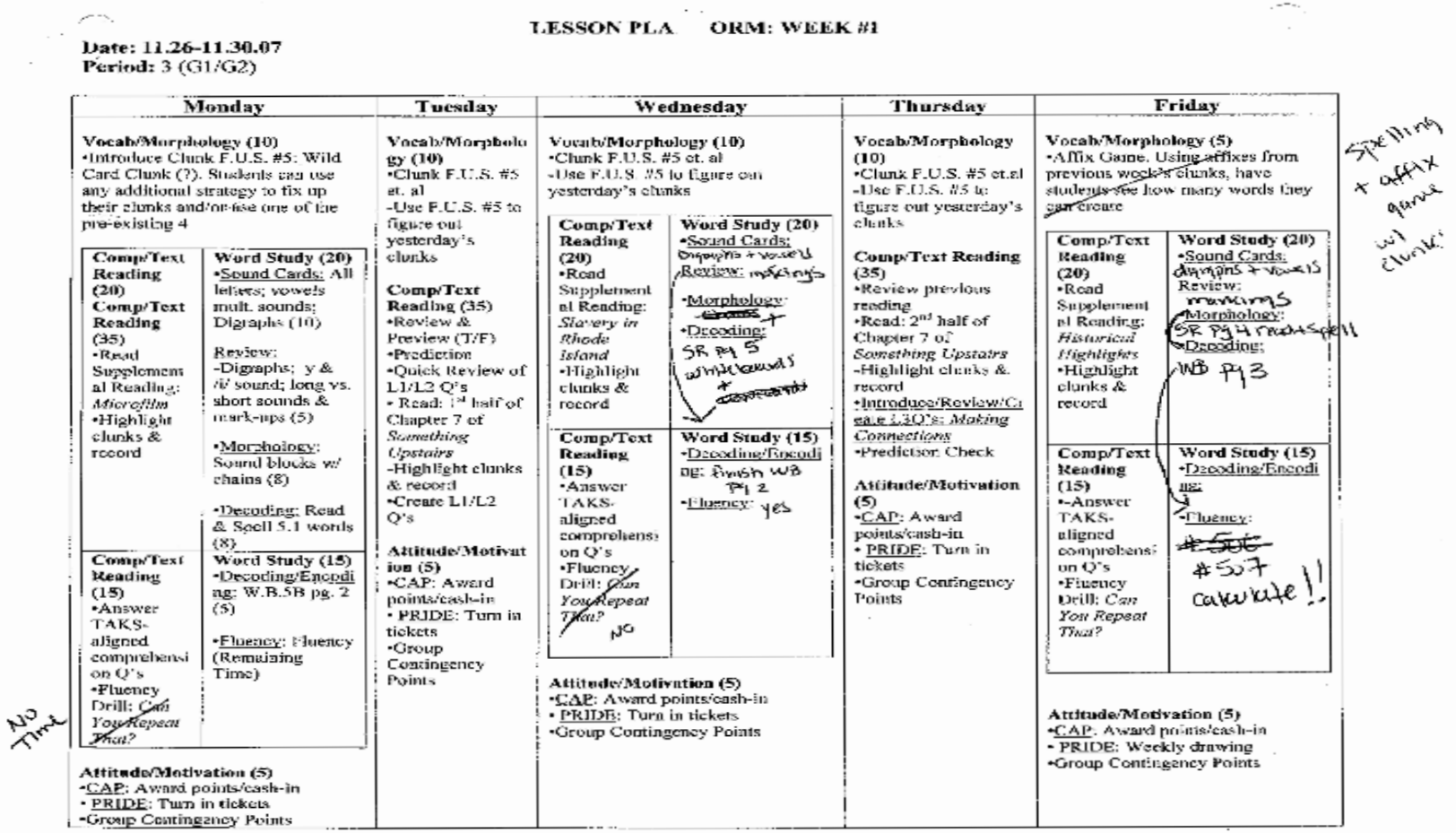
Vaughn et al., 2009

Standardized Intervention

Phase 1 (approx 5 weeks)	Phase 2 (approx 13-15 weeks)	Phase 3
Decoding/ Advanced Word Study **Fluency:** Repeated reading or wide in peer pairing arrangement	**Vocabulary/ Comprehension (3 days)** Emphasis in social studies and science text **Novel Unit (2 days)**	**Year 1:** **-Expository Text** **-TAKS + Fluency** **-Novel Unit** **Year 2:** **-Sound fluency** **-Phrase fluency** **-Silent timed read with comprehension practice at the sentence level**

Vaughn et al., 2009

Individualized Conceptual Framework: Sample Lesson Plan



LESSON PLA ORM: WEEK #1

Date: 11.26-11.30.07
Period: 3 (G1/G2)

Monday	Tuesday	Wednesday	Thursday	Friday
Vocab/Morphology (10) •Introduce Clunk F.U.S. #5: Wild Card Clunk (?). Students can use any additional strategy to fix up their clunks and/or use one of the pre-existing 4 **Comp/Text Reading (20)** **Comp/Text Reading (35)** •Read Supplemental Reading: *Microfilm* •Highlight clunks & record **Word Study (20)** •Sound Cards: All letters; vowels mult. sounds; Digraphs (10) Review: -Digraphs; y & /i/ sound; long vs. short sounds & mark-ups (5) •Morphology: Sound blocks w/ chains (8) •Decoding: Read & Spell 5.1 words (8) **Comp/Text Reading (15)** •Answer TAKS-aligned comprehension Q's •Fluency Drill: *Can You Repeat That?* **Word Study (15)** •Decoding/Encoding: W.B.5B pg. 2 (5) •Fluency: Fluency (Remaining Time) **Attitude/Motivation (5)** •CAP: Award points/cash-in • PRIDE: Turn in tickets •Group Contingency Points	**Vocab/Morphology (10)** •Clunk F.U.S. #5 et. al -Use F.U.S. #5 to figure out yesterday's clunks **Comp/Text Reading (35)** •Review & Preview (T/F) •Prediction •Quick Review of L1/L2 Q's • Read: 1st half of Chapter 7 of *Something Upstairs* -Highlight clunks & record •Create L1/L2 Q's **Attitude/Motivation (5)** •CAP: Award points/cash-in • PRIDE: Turn in tickets •Group Contingency Points	**Vocab/Morphology (10)** •Clunk F.U.S. #5 et. al -Use F.U.S. #5 to figure out yesterday's clunks **Comp/Text Reading (20)** •Read Supplemental Reading: *Slavery in Rhode Island* •Highlight clunks & record **Word Study (20)** •Sound Cards: Digraphs + vowels Review: markings •Morphology: ~~[illegible]~~ + •Decoding: SR pg 5 whiteboards + ~~[illegible]~~ **Comp/Text Reading (15)** •Answer TAKS-aligned comprehension Q's •Fluency Drill: *Can You Repeat That?* NO **Word Study (15)** •Decoding/Encoding: finish WB pg 2 •Fluency: yes **Attitude/Motivation (5)** •CAP: Award points/cash-in • PRIDE: Turn in tickets •Group Contingency Points	**Vocab/Morphology (10)** •Clunk F.U.S. #5 et.al -Use F.U.S. #5 to figure out yesterday's clunks **Comp/Text Reading (35)** •Review previous reading •Read: 2nd half of Chapter 7 of *Something Upstairs* -Highlight clunks & record •Introduce/Review/Create L3Q's: *Making Connections* •Prediction Check **Attitude/Motivation (5)** •CAP: Award points/cash-in • PRIDE: Turn in tickets •Group Contingency Points	**Vocab/Morphology (5)** •Affix Game. Using affixes from previous week's clunks, have students see how many words they can create **Comp/Text Reading (20)** •Read Supplemental Reading: *Historical Highlights* •Highlight clunks & record **Word Study (20)** •Sound Cards: digraphs + vowels Review: markings •Morphology: SR pg 4 read+spell •Decoding: WB pg 3 **Comp/Text Reading (15)** •-Answer TAKS-aligned comprehension Q's •Fluency Drill: *Can You Repeat That?* **Word Study (15)** •Decoding/Encoding: •Fluency: ~~#506~~ #507 calculate!! **Attitude/Motivation (5)** •CAP: Award points/cash-in • PRIDE: Weekly drawing •Group Contingency Points

No Time

Spelling + affix game w/ clunks

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Vaughn et al., 2009

Student Progress and Lesson Modification

- Use scope and sequence of research based strategies to guide instruction
- Lesson modification and decisions to progress are based on data and teacher judgment
- Teachers decide mastery and have to justify decisions based on data (student work samples, CBM results and CBM informational guide, and observations)

Vaughn et al., 2009

4. Data-based Decisions

Data-based Decisions

Screening

- Use data to make instructional decisions and use data you already have (e.g., state tests)

Progress Monitoring

- Curriculum-based Measure (CBM)
  - Maze Comprehension
  - Oral Reading Fluency (ORF)

Diagnostics

- Use data to identify students' special education status

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

CBM Informational Guide

CBM INFORMATIONAL GUIDE

Weeks of: 9/17-9/25 GROUP1

Concept	Using clunks fix up strategies	Explaining the purpose of previewing	Generating a Get the Gist statement/ identifying the subject and important details	Word list decoding	Details: words missed
Kevin	D	M	D	D	hawk, hound, wreath, caught
Dontay	E	E	E	M	none
Jesus	E	M	E	E	wreath
Sarah	E	M	E	M	NONE
Rakim	E	M	E	E	haunt, wreath, gown
What/ How did I teach?	-Practice sentences (I do, WE do, YOU do) -clunk logs (independently with class discussion of fix-ups)	Previewing articles and the novel, modeled think-alouds then practice: WE do and YOU do.	-Identifying examples and non-examples of gist statements -Get the Gist practice with expository passages, narrative chapters (I do, WE do, and YOU do)	Fluency drills from 6-minute solutions- words with vowel combinations sets 1-8.	
Next Steps/ Modifications	More guided practice with isolated sentences and then move to clunks within the novel	More think-alouds with various types of text	Re-teach features of a good gist statement. More independent practice with corrective feedback. Have students create their own gist and then discuss which is the best and why.	One-on-one practice with fluency drills; explain the concept and drill with examples:	Kevin: aw, ou, ea, aught Jesus: ea Rakim: vowel combinations au, ow, ea

M=Mastery: They know it; Can move on
E=Emerging: They are getting it but need more practice; Can stretch it
D=Deficient: They don't have it; Re-teach

Vaughn et al., 2009

5. Comprehension Strategies

Comprehension Strategies

- Comprehension is likely insufficient for students who also have significant difficulties with vocabulary, background knowledge, and/or decoding

- Teaching comprehension strategies to older students with reading difficulties is beneficial

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

CSR's Plan for Strategic Reading

BEFORE READING

Preview

1. **BRAINSTORM:** What do we already know about the topic?
2. **PREDICT:** What do we predict we will learn about the topic when we read the passage?

DURING READING

Click and Clunk

1. Were there any parts that were hard to understand (clunks)?
2. How can we fix the clunks?
3. Use fix-up strategies:
   a. Reread the sentence and look for key ideas to help you understand.
   b. Reread the sentences before and after looking for clues.
   c. Look for a prefix, root word, or suffix in the word.
   d. Break the word apart and look for smaller words.

Get the Gist

1. What is the most important person, place, or thing?
2. What is the most important idea about the person, place, or thing?

AFTER READING

Wrap-up

1. **ASK QUESTIONS:** What questions check whether we understand the most important information in the passage?
   Can we answer the questions?
2. **REVIEW:** What are the most important ideas?

(Vaughn, Klingner et al., 2009)

CSR Learning Log for Informational Text

Name _____ Date _____

Today's Topic _____

BEFORE READING: Preview

Brainstorm: Connections to prior knowledge

Predict: What I might learn about the topic

DURING READING: Section 1

Clunks **Fix-up**

_____ = _____ 1 2

_____ = _____ 1 2

_____ = _____ 1 2

Gist:

DURING READING: Section 2

Clunks **Fix-up**

_____ = _____ 1 2 3 4

_____ = _____ 1 2 3 4

_____ = _____ 1 2 3 4

Gist:

AFTER READING: Wrap-Up

Questions: Write questions and answers.

Review: Write one or two of the most important ideas in this passage. Be prepared to justify your ideas.

(Vaughn, Klingner et al., 2009)

Chapter Book Organizer

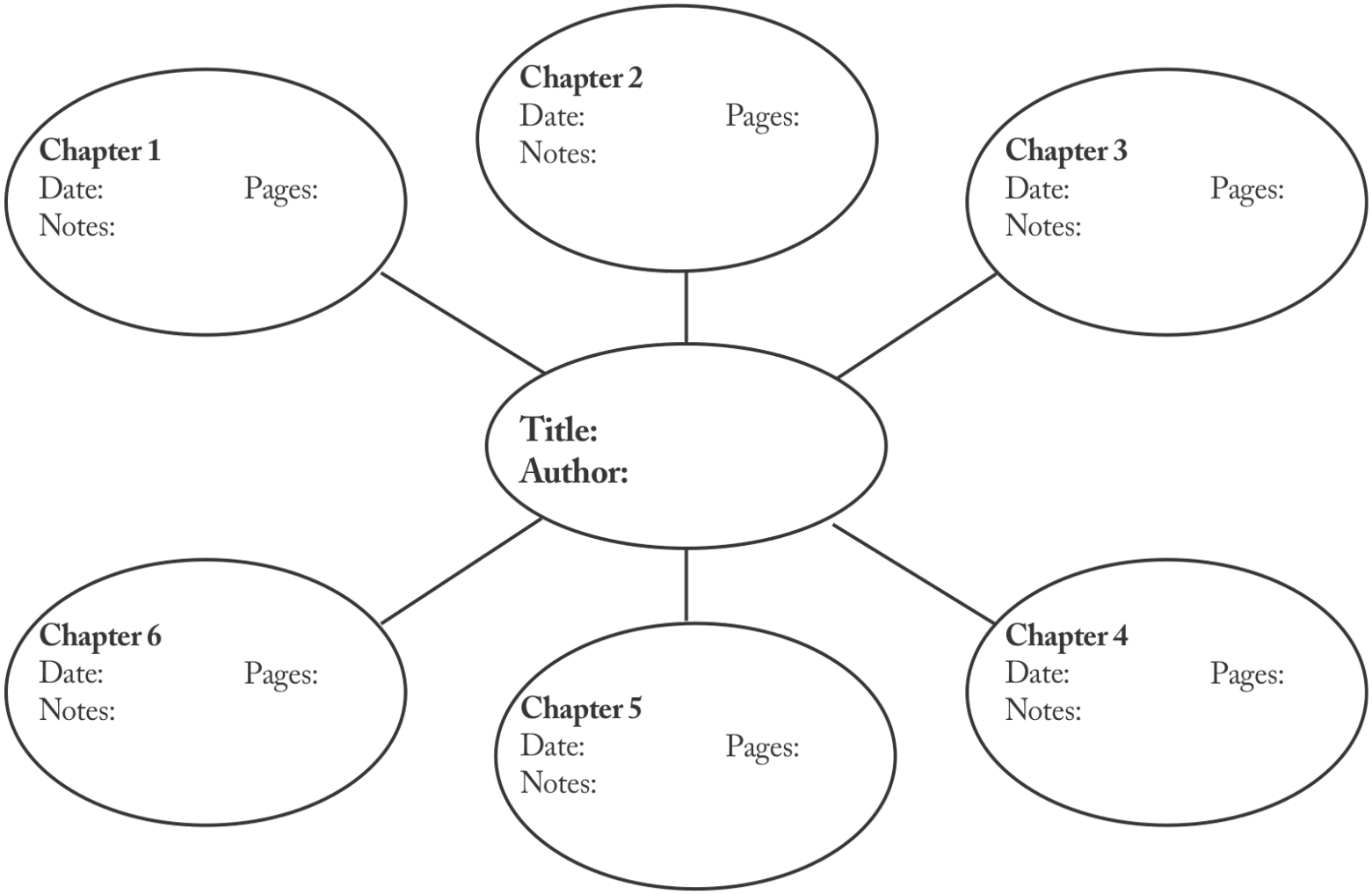


Figure 2. Sample chapter book organizer.

(Hairrell, Edmonds, Vaughn, & Simmons, 2011)

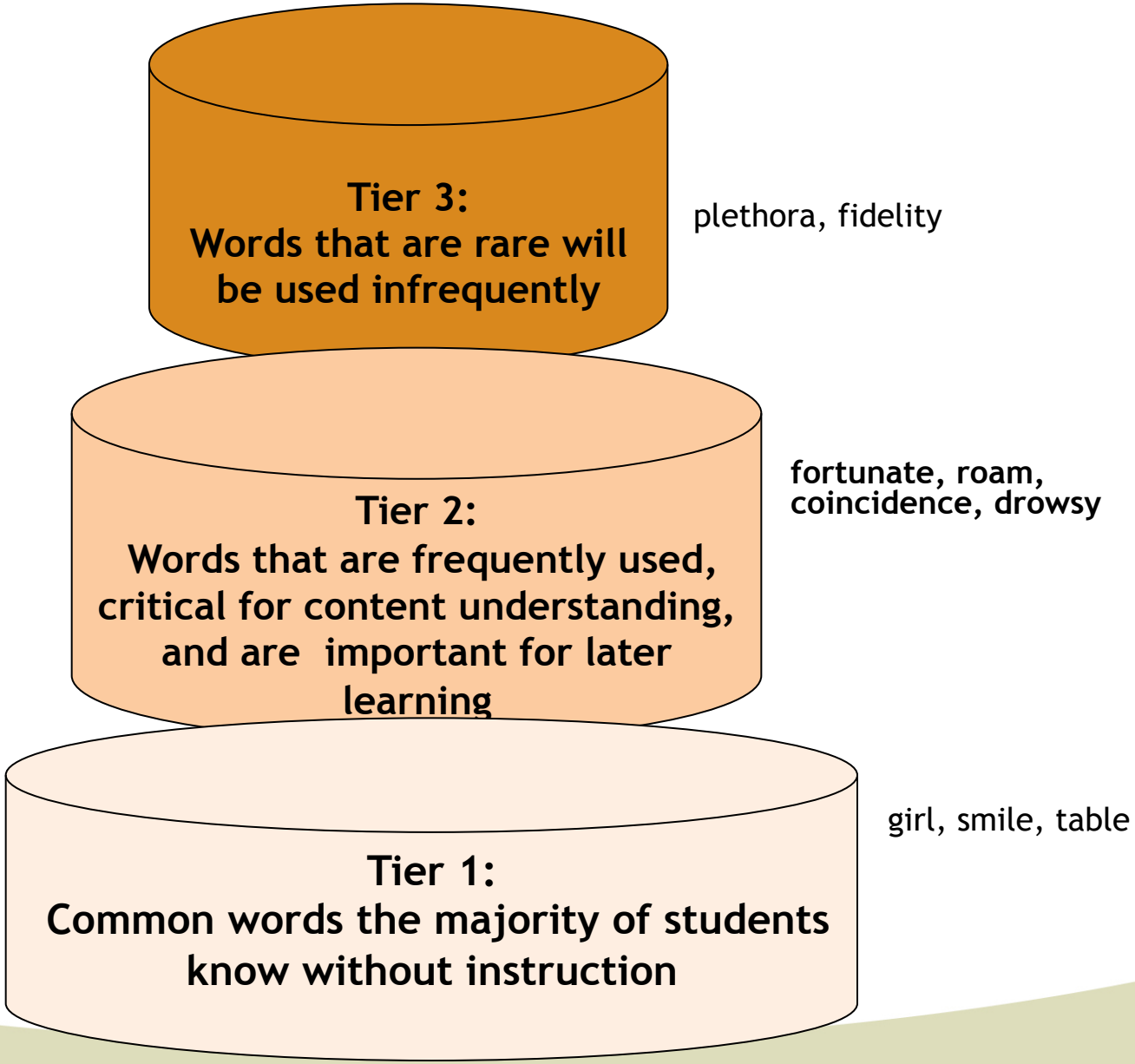
6. Vocabulary

Academic Vocabulary

- Infuse intensive language and vocabulary instruction **daily**
- A "robust" approach to vocabulary instruction involves **directly explaining the meanings of words** along with thought-provoking, playful, interactive follow-up
- Most older students with reading difficulties **benefit from improved knowledge about concepts and vocabulary related to their content learning**

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

Criteria for Prioritizing Words to Teach



(Beck, McKeown, & Kucan, 2002)

Multiple Methods to Teach and Learn Vocabulary

Explicit Instruction

Vocabulary Maps
Association/
Categorization Activities
Multiple Exposures

Independent Word Learning Strategies

Context Clues
Morphemic Word Study
Wide Reading

(Vaughn, Simmons et al., 2009)

Teaching Vocabulary Strategies

Explicit Teaching

Model and guide the components of the vocabulary map:

- Demonstrate
- Monitor
- Check for understanding
- Correct
- Confirm
- Expand
- Reinforce

Student Application

Students study and learn words deeply through the following:

- Definition
- Illustrations
- Context
- Associations
- Word Building
- Application

(Vaughn, Simmons et al., 2009)

Vocabulary Maps for The Earliest Texans

2.) Definition: Underline the key words.

A person's children, grandchildren, and so on.

3.) Illustration

4.) Context: Circle the correct sentence.

The descendants are the President and Vice President.

I am a descendant of my great-grandfather.

1.)

Descendants

5.) Words That Are Related: Choose two related words.

A. Family
B. Children
C. Fall
D. Fly

7.) My Definition: Write your own definition.

8.) Word Building: Choose a real word and then write another word.

A. Descend
B. Descendanting

_____

The Earliest Texans Word Work

(Vaughn, Simmons et al., 2009)

7. Background Knowledge

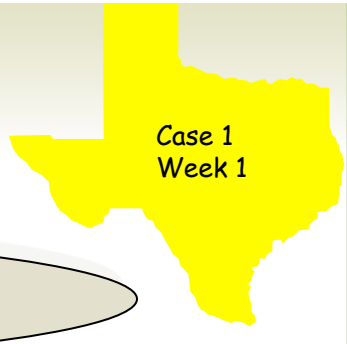
Content Area Knowledge

- Since background knowledge and vocabulary are considerably underdeveloped in the vast majority of older students with reading difficulties, **school-wide approaches to enhancing knowledge and vocabulary across Tier 1 content areas are needed**

- Use a great deal of expository text to increase world knowledge

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

1. The Earliest Texans



were

2. hunters who later began to farm and settle in communities

3. When	Way of life:	How they survived:	How they lived:	Children and grandchildren or their descendants
4. First Trail to Texas: 50,000 years ago	Followed herds of woolly mammoths and giant bison	Animals provided food, clothing and shelter.	Came over a land bridge called Beringia that connected Asia and North America	Moved southward
Learning About the Past: 10,000 years ago	Followed animal herds	Objects made by these people or artifacts tell us that they hunted herds of animals and used the meat, bones, and hides	Traded flint from an open pit mine or quarry.	Arrived in Texas
Changes in Ways of Life: 2,000 years ago	Way of life or culture changed as the giant animals died out or became extinct.	They began to grow their own food or practice agriculture. Baskets, pottery, and dried foods became trading goods.		Known as Native Americans

Vocabulary List

agriculture
artifacts
Beringia
culture
Native Americans
quarry
trading goods
descendants

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(Vaughn, Simmons et al., 2009)

Exploration Leads to Texas

compare and contrast

the explorers of Texas and their experiences.

Explorer	Columbus	Cortez	deVaca	Coronado	La Salle
What was the region explored?	The Americas	Mexico	Florida, then Galveston	Mexico and Llano Estacado	Matagorda Bay
What was the reason for exploration?	Collect riches, religion, conquer land	Riches and land	He got lost	Looking for cities of gold	To establish a colony
What was their country of origin?	Spain	Spain	Spain	Spain	France

(Vaughn, Simmons et al., 2009)

8. Word Study

Typology

- Consider the **type of reading problem** (e.g., word level, text/background knowledge level, or combined) and **focus the instruction or intervention to meet students' needs**

- Older students with reading difficulties benefit from interventions focused at both the ***word*** and the ***text level***

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

What Teachers Can Do: Word Analysis

- Teach students to identify affixes, what they mean, and how to interpret the meaning of words that use common affixes.
    - Ex. re, un, ly, ment…
- Teach students to look for words they know within larger words
    - Ex. re-submit

What Teachers Can Do: Word Recognition

- Teach the syllable types (consonant vowel-consonant, consonant-vowel, vowel-consonant-e, r-controlled, double vowel, and consonant-le) to decode words.
    - Ex. lo-cate: open syllable and vowel-consonant-e syllable

Sentence Level Comprehension

- The deal is, we have to wait until daylight, so no one can see us messing with the storm drain.
- Freak clears his throat and tries to make his voice sound high-pitched and more grown up.
- The shouting and singing goes on and on, and pretty soon some of the kids are throwing stuff at us, pencils and erasers and wadded up paper, and its like Mrs. D has no idea what to do about it, the room is in total control.

9. Comprehension Gains

Reading Comprehension Growth

- The reading comprehension gains of students in Grades 6 and older are likely to be **significantly smaller** than those in other reading and reading-related areas studies of foundation skills such as phonemic awareness and phonics

- Complex reading-related problems, such as vocabulary development and background knowledge, that are associated with comprehension are **unlikely to be readily and quickly remediated**

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

10. Next Steps

More Research is Needed

- We currently have little evidence that more clinically responsive approaches to teaching students with reading disabilities will be associated with improved outcomes since currently there is not adequate evidence to support this claim

- The development and testing of clinical instructional approaches for students with reading difficulties is needed

Scammacca et al., 2007; Vaughn et al., in press; Vaughn & Fletcher, 2010

Application of RTI for Secondary Students

Components	Procedures
Screening	• State assessment protocol
Tier 1	Direct and explicit instruction in: • Academic, content area vocabulary • Reading comprehension • Discussion of text meaning and interpretation • Motivation and engagement
Progress Monitoring	• Curriculum-based Measure (CBM) • Maze Comprehension • Oral Reading Fluency (ORF)
Tier 2	• Match the reading component with the student's need • Ensure a structured scope and sequence • Vary pacing and vary text (content and levels) • Vary grouping (not too small) to increase opportunities to respond and receive feedback that not too
Diagnostic	• State assessment protocol
Tier 3	• Special Education Supports and Services

Vaughn & Fletcher, 2010

Every Child a Graduate

"Research shows….that students who receive intensive, focused literacy instruction and tutoring will graduate from high school and attend college in significantly greater numbers than those not receiving such attention."

Alliance for Excellent Education [AEE], 2002, p. 3

THANK YOU

Resources

The Meadows Center for Preventing Educational Risk

http://www.meadowscenter.org/

Texas Center for Learning Disabilities

www.texasldcenter.org

Center on Instruction

http://www.centeroninstruction.org/

National Center on Response to Intervention

http://www.rti4success.org/

National High School Center

http://www.betterhighschools.org/