Response to Intervention (RTI) with Secondary Students

Sharon Vaughn & Nicole Pyle

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http://www.meadowscenter.org/
Texas Center for Learning Disabilities
www.texasldcenter.org

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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
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


• 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

<table>
<thead>
<tr>
<th>Component</th>
<th>Elementary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonemic Awareness</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Word Study</td>
<td>✓</td>
<td>✓ (Advanced)</td>
</tr>
<tr>
<td>Fluency</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Comprehension</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Motivation</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
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

**Standardized Intervention**
- Specified use of time (3 phases of intervention)
- High control of curriculum and materials
- Modifications made at the group level
- Motivation through success only

**Individualized Intervention**
- Systematic and explicit instruction
- Fast paced instruction
- Ongoing progress monitoring
- Instruction in same components of reading (word study, comprehension, vocabulary, fluency)

**Flexibility in use of time**
- Low control of curriculum and materials
- Modifications made in response to individual student need
- Motivation through text selection, conferences, goal setting, positive calls home

*Vaughn et al., 2009*
### Standardized Intervention

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>(approx 5 weeks)</td>
<td>(approx 13-15 weeks)</td>
<td></td>
</tr>
<tr>
<td><strong>Decoding/Advanced Word Study</strong>&lt;br&gt;<strong>Fluency:</strong> Repeated reading or wide in peer pairing arrangement</td>
<td><strong>Vocabulary/Comprehension (3 days)</strong>&lt;br&gt;Emphasis in social studies and science text</td>
<td><strong>Year 1:</strong>&lt;br&gt;- Expository Text&lt;br&gt;- TAKS + Fluency&lt;br&gt;- Novel Unit</td>
</tr>
<tr>
<td><strong>Novel Unit (2 days)</strong></td>
<td><strong>Year 2:</strong>&lt;br&gt;- Sound fluency&lt;br&gt;- Phrase fluency&lt;br&gt;- Silent timed read with comprehension practice at the sentence level</td>
<td></td>
</tr>
</tbody>
</table>

Vaughn et al., 2009
## Individualized Conceptual Framework: Sample Lesson Plan

### LESSON PLAN

**Date:** 11.28-11.30.07  
**Period:** 3 (G1/G2)

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
</table>
| Vocab/Morphology (10)  
- Introduces Clue: F.U.S.E. Wild Card Chunk (2)  
- Students use any additional strategy to fix up their chunks and connect one or two of the preexisting 4 | Vocab/Morphology (10)  
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- Introduces Clue: F.U.S.E. Wild Card Chunk (2)  
- Students use any additional strategy to fix up their chunks and connect one or two of the preexisting 4 |
| **Comp/Text Reading** (35)  
- Read Supplemental Reading: Microfilm Highlight specials & record | **Comp/Text Reading** (35)  
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- Read Supplemental Reading: Microfilm Highlight specials & record | **Comp/Text Reading** (35)  
- Read Supplemental Reading: Microfilm Highlight specials & record |
| **Comp/Text Reading** (15)  
- Answer TAKS-aligned comprehension on O’s  
- Fluency Drill: Care You Repeat That? | **Comp/Text Reading** (15)  
- Answer TAKS-aligned comprehension on O’s  
- Fluency Drill: Care You Repeat That? | **Comp/Text Reading** (15)  
- Answer TAKS-aligned comprehension on O’s  
- Fluency Drill: Care You Repeat That? | **Comp/Text Reading** (15)  
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- Fluency Drill: Care You Repeat That? | **Comp/Text Reading** (15)  
- Answer TAKS-aligned comprehension on O’s  
- Fluency Drill: Care You Repeat That? |
| **Attitude/Motivation (5)**  
- CAP: Award points/cash-in  
- PRIDE: Turn in tickets  
- Group Contingency Points | **Attitude/Motivation (5)**  
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- CAP: Award points/cash-in  
- PRIDE: Turn in tickets  
- Group Contingency Points |
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  
GROUP 1

<table>
<thead>
<tr>
<th>Concept</th>
<th>Using clunks fix up strategies</th>
<th>Explaining the purpose of previewing</th>
<th>Generating a Get the Gist statement/identifying the subject and important details</th>
<th>Word list decoding</th>
<th>Details: words missed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kevin</td>
<td><strong>D</strong></td>
<td>M</td>
<td><strong>D</strong></td>
<td></td>
<td>hawk, hound, wraith, caught</td>
</tr>
<tr>
<td>Douglas</td>
<td><strong>E</strong></td>
<td>E</td>
<td><strong>E</strong></td>
<td></td>
<td>none</td>
</tr>
<tr>
<td>Sarah</td>
<td><strong>E</strong></td>
<td>M</td>
<td><strong>M</strong></td>
<td></td>
<td>wreath</td>
</tr>
<tr>
<td>Rekia</td>
<td>S</td>
<td>E</td>
<td><strong>E</strong></td>
<td></td>
<td>NONE</td>
</tr>
</tbody>
</table>

**What 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 selections, words with vowel combinations sets 1-8.

**Next steps**
- 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.

**Mastery:** They know it; can move on  
**Emerging:** They are getting it but need more practice; can stretch it  
**Deficient:** They don’t have it; Re-teach

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**The Meadows Center**  
FOR PREVENTING EDUCATIONAL RISK

**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

<table>
<thead>
<tr>
<th>Clunks</th>
<th>fix-up</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
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<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Gist:**

### DURING READING: Section 2

<table>
<thead>
<tr>
<th>Clunks</th>
<th>fix-up</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>1</td>
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<td>4</td>
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<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**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)
Figure 2. Sample chapter book organizer.
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

Tier 3: Words that are rare will be used infrequently
- plethora, fidelity

Tier 2: Words that are frequently used, critical for content understanding, and are important for later learning
- fortunate, roam, coincidence, drowsy

Tier 1: Common words the majority of students know without instruction
- girl, smile, table

(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

The descendants are the President and Vice President.
I am a descendant of my great-grandfather.

4.) Complete: Circle the correct sentence.

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

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

6.) My Definition: Write your own definition.

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

A. Descend
B. Descendant

(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
The Earliest Texans

- Hunters who later began to farm and settle in communities

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**Vocabulary List**
- agriculture
- artifacts
- Beringia
- culture
- descendants
- trading goods
- Native Americans
- quarry
- Beringia
- culture

---

**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. They traded flint from an open pit mine or **quarry**. They 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**.

---

**First Trail to Texas: 50,000 years ago**
- Followed herds of woolly mammoths and giant bison
- Animals provided food, clothing, and shelter. They came over a land bridge called **Beringia** that connected Asia and North America. They moved southward.

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(Vaughn, Simmons et al., 2009)
# Exploration Leads to Texas

compare and contrast

the explorers of Texas and their experiences.

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

(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
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
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

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

*Vaughn & Fletcher, 2010*
“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.”
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

National High School Center
http://www.betterhighschools.org/