

# Solving the Problem of Reading For Understanding

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The Meadows Center  
FOR PREVENTING EDUCATIONAL RISK

THE UNIVERSITY OF TEXAS AT AUSTIN  
COLLEGE OF EDUCATION

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## Who are we?

The Meadows Center for Preventing Educational Risk is an ORGANIZED RESEARCH UNIT (ORU) within the College of Education

We were established with a generous gift from the Meadows Foundation in the Fall of 2008

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## Who funds us?

Year	TEA	IES/NIH/NICHD	All other funding sources
2008-2009	\$6,000,000	\$3,000,000	\$1,000,000
2009-2010	\$4,500,000	\$4,000,000	\$2,500,000
2010-2011	\$2,500,000	\$8,000,000	\$3,500,000
2011 & Beyond	\$0	\$18,000,000	\$4,000,000

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**Dissemination of Research**

Articles Published This Year: 117

Presentations Given This Year: 81

Website Hits: 3,264,360




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**Texas School Districts MCPER Worked with Spring 2010**

<http://www.meadowscenter.org/>

Austin ISD	Manor ISD
Bovina ISD	Midland ISD
Burkburnett ISD	Pflugerville ISD
Calhoun County ISD	River Road ISD
Chapel Hill ISD	San Angelo ISD
Del Valle ISD	Temple ISD
Denver City ISD	Troy ISD
El Paso ISD	University of Texas Elementary-Charter School
Frenship ISD	Weatherford ISD
Hays CISD	Yoakum ISD
Irving ISD	Yselta ISD
Jourdanton ISD	
Leon ISD	




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**The Voices of Secondary Struggling Readers:**

*“They always raise their hands to read. They are able to pronounce the words and answer the teacher’s questions about the reading assignments. Poor readers are like me. I tell the teacher I don’t want to read because I feel embarrassed and think that they’ll laugh at me too.”*

McCray, Vaughn, & Neal , 2001




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### Read This

“An example of the kind of optical experiment where phase differences play an important part is as follows: a beam of monochromatic light is divided into two beams, by partial reflection or otherwise. The two are then sent over different paths and afterward recombined. The intensity resulting from this superposition will depend greatly on the exact phase difference between the two sets of waves. This difference, in turn, is determined by the distances traversed by the two beams in reaching the point of observation.” (p. 196, Jenkins & White)



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### Plowing Through Text

For MANY older students, everything they read makes less sense than the previous passage you read.



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### Make an Inference

“But for a day after the ambassadors from King Ambiorix had been sent away unseen and so impolitely, Cicero was conscious of a peculiar restlessness. Something was wrong; he didn’t know what it was. He sent for Pullo and Vorenus. ‘We’re in for trouble,’ he said, ‘let’s walk around the camp and see what we can do to shore up it defenses.’”



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**What do you think is happening? How do you know it? Use evidence from the text to support your views.**



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### The Larger Context

- Only 32% of 8<sup>th</sup> graders are proficient readers (NCSE, 2003)
- Nationally, 21-23% of all adults “demonstrated skills in the lowest level of proficiency” (U.S. Department of Education, Office of Vocational and Adult Education)
- More than 8 million students in grades 4-12 are struggling readers (U.S. DOE, 2003)
- Every school day, more than 7,000 students drop out of high school



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### “Just the Facts, Ma’am.”

- 25% of 8<sup>th</sup> graders Below Basics in reading
- 26% of 12<sup>th</sup> graders Below Basics in reading
- 2002 International Comparisons place American 11<sup>th</sup> graders very close to the bottom in reading
- 8.7 million 4th through 12th graders are unable to read and comprehend textbooks



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### “Just the Facts, Ma’am.” cont.

- Annual salary expectations?
  - High school dropout - \$19,000
  - High school graduate - \$26,500
  - Associate’s degree - \$33,400
  - Bachelor’s degree - \$42,200
  - Master’s degree - \$52,300

Source: U.S. Department of Commerce



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### The Larger Context

- Only 70% of high school students graduate on time with a regular diploma, and fewer than 60% of African-American and Hispanic students do so (Greene, 2002)
- 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)
- Approximately 53% of high school graduates enroll in remedial courses in postsecondary education (NCES, 2001)



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### The Larger Context

- Prior to 1990s, the USA ranked #1 compared with other countries in college graduates
- In the 1990s, our ranking slipped to #3
- Today we’re ranked #12 - behind Russia, Japan and Korea



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### Causes of Poor Reading

Students may

- have a learning disability such as dyslexia
- have entered school with very poor preparation for learning to read
- have not valued literacy
- have attended school sporadically
- have generally low learning ability

**AND**

have received *insufficiently powerful instruction*—gotten off to a very poor start and never recovered



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### As “Every Child a Graduate” Notes:

“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.”



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### How did this happen?



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### Characteristics of Older Struggling Readers

Percentile Rank	Number of Words Read In and Out of School in One Year
10 <sup>th</sup>	60,000
50 <sup>th</sup>	900,000
90 <sup>th</sup>	4.1 million
98 <sup>th</sup>	9 million

*During the 5<sup>th</sup> grade year, the average student (50<sup>th</sup> percentile) gets about 15 times as much reading practice as the student reading at the 10<sup>th</sup> percentile!*

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Cunningham & Stanovich, 1998

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### Characteristics of Older Struggling Readers

Many of the poor and minority students who currently perform below the 30<sup>th</sup> percentile in reading skills entered school with academic vocabularies already only half the size of their middle-class counterparts.

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Beck, McKeown, & Kucan, 2002.

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### Our Lowest Performing Readers:

- Cannot decode novel words accurately because they have weak phonics skills, and cannot read fluently because their “sight vocabulary” is restricted.
- Have relatively weak vocabularies because they have not been able to read widely during previous school years (broad knowledge deficits).
- Have not practiced comprehension strategies because of their limited reading experience, and because of their struggle with words.
- May have given up on the idea of ever becoming a good reader

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**A STUDENT'S VOICE:**

*"I'm not that good at reading. It takes me a while and when I am reading a book, it takes me more than six times and then I still forget what I've read. It's very hard to keep focused and remember where I was. Even when I remember, I read so slow that I never finish my work. There are still lots of words I cannot pronounce. I can't remember how to sound out the words."* (Middle school student with reading difficulties; McCray, Vaughn, Neal, 2001, p. 21)

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**How will we solve this problem?**

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**What must we teach students if we want them to become good readers?**

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

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Do adolescents really need to learn to read in the same way that young children do?

Our best answer to the question at present is:

**YES**



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What are the most serious challenges faced by adolescents who have not yet acquired good reading skills?

1. Difficulties decoding
2. Slow and labored reading
3. Lack of background knowledge and limited vocabulary



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*"I'm sorry, but so far medical science hasn't come up with a cure for adolescence."*

New Yorker cartoon



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**HOW**  
should we teach  
older struggling  
readers?




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The very best teachers of students  
who struggle in learning to read are

**Relentless**

As students become accurate and independent readers, encourage, cajole, lead, beg, support, demand, reward them for reading as broadly and deeply as possible.

Torgesen, 2004




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**Setting, Participants, and Group Assignment**


Year 1

2 school districts 15 schools 49 teachers 896 students		
Vocabulary 6 schools 17 teachers 319 students	Comprehension 5 schools 18 teachers 329 students	Typical Practice 4 schools 14 teachers 248 students

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Year 2

Hybrid 2 school districts 11 schools 35 teachers 340 students		
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**The Earliest Texans**      **Vocabulary Map**

**2. Definitions:** Underline the key words.  
The planting of seeds to grow food

**3. Illustration**  
  
Source: Library of Congress

**4. Contexts:** Circle the correct sentence.  
1. The town relied on agriculture for their supply of food.  
2. He chopped down trees with the agriculture.

**1. Word**  
agriculture

**5. Word Associations:** Choose two related words.  
A. crops  
B. farmer  
C. hat  
D. customs

**6. Provide:** Create an example, phrase, sentence, or definition using the word.

Class 4, Week 1 | The Earliest Texans

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**CSR's Plan for Strategic Reading**

**BEFORE READING**      **DURING READING**      **AFTER 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?

**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.

**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?

**Get the Gist**  
1. What is the most important who or what?  
2. What is the most important idea about the person, place, or thing?

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### Motivation

Detailed studies of effective teachers document that they are powerful

*“Basically, we found that engaging teachers do something every minute of every hour of every school day to motivate their students, using every conceivable motivational mechanism to do so ...”*

Pressley, 2004

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### Motivation

*“Less engaging teachers actually do much to undermine student motivation, including, for example, establishing a negative tone in the class, placing great emphasis on extrinsic rewards, calling attention to weak performances by students, providing ineffective or unclear feedback, and fostering competition among students. Engaging teachers never teach in ways that undermine students’ motivation.”*

Pressley, 2004

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### Brain Structure: Overview

- Brains of children with LD are visibly normal
- Postmortem studies based on small, heterogeneous sample- results not persuasive
- Quantitative structural MRI studies show inconsistent results- most general finding is smaller left temporal lobe (poorly controlled), but multiple structures implicated
- Lots of variables in small samples



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### A Concluding Thought....

There is no question that improving literacy skills in adolescent struggling readers is a significant challenge...

It will involve intensive professional development for teachers, school reorganization, and a relentless focus on the individual needs of every child...



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“Poor readers **CAN** be taught if the program has all necessary components, the teacher is well prepared and supported, and the students are given time, sufficiently intensive instruction, and incentives to overcome their reading and language challenges. Given the right approach, students will buy in. In fact, they’ll ask why they were allowed to go so far without being taught to read”



Moats, 2001

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