

#### Reading for **SUCCESS**

The Texas Center for
Learning Disabilities
(TCLD) investigates
the classification, early
intervention, and
remediation of
learning disabilities.

#### **University of Houston**

Jack M. Fletcher, PI David Francis (P1, Core B)

#### The University of Texas at Austin

Sharon Vaughn, Co-PI: P1, P2, P3
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Greg Roberts (Core C)

#### The University of Texas-Houston

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### Texas Center for Learning Disabilities

Project 1 (Classification)
 David Francis, UH

Project 2 (Early Intervention)
 Carolyn Denton, UTH
 Jack Fletcher, UH

Project 3 (Remediation) Sharon Vaughn, UTA

Project 4 (Magnetic Source Imaging) Andrew Papanicolaou, UTH

Core A (Administrative)
 Jack Fletcher , UH

Core B (Quantitative)
 David Francis, UH

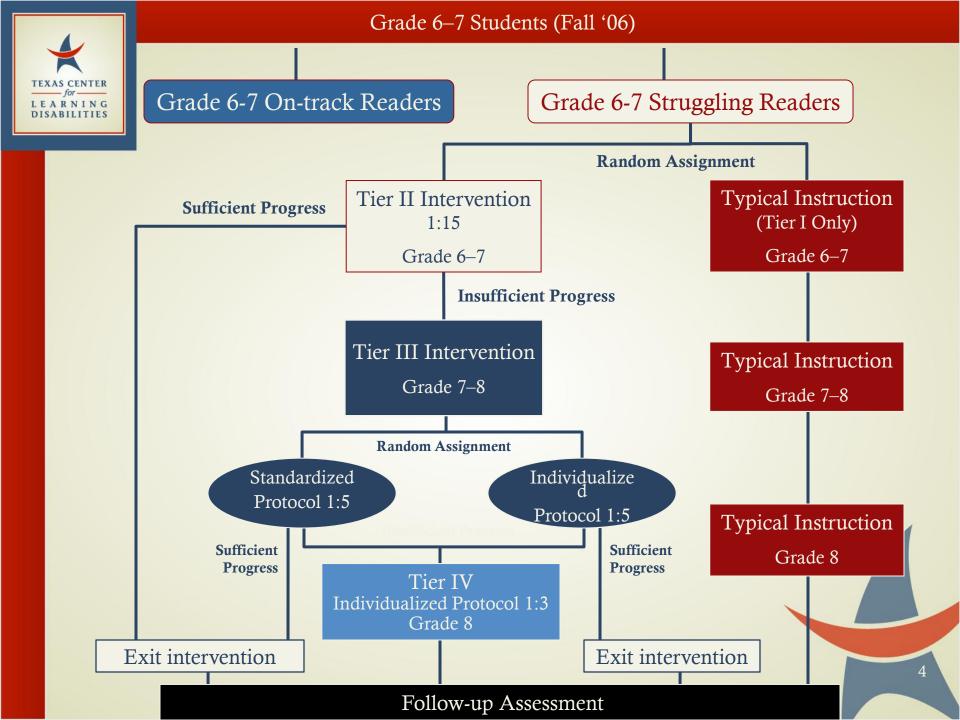
Core C (Dissemination)
 Greg Roberts, UTA

Amy Barth, Paul Cirino, Jenifer Juranek, Karla Stuebing, Jeanne
 Wanzek, Jade Wexler, Jennifer Hocker, Terri Kurz, Melissa Romain



# Minimal Responders over Time: Year 3

Sharon Vaughn
Jade Wexler, Audrey Leroux, Greg Roberts
The Meadows Center for Preventing Educational Risk
The University of Texas at Austin
Amy Barth, J.M. Fletcher
University of Houston





### Year 2: Tier III Intervention

## **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

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



#### Framework for Conceptualizing Three Categories of Reading Difficulties

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Good

Specific
Reading
Comprehension
Difficulties

Normally
Developing
Readers

**Poor** 

Mixed Reading Disability Reading
Disability
(Dyslexia)

**Poor** 

Good

**Oral Language Comprehension** 





### Conceptual Framework: Lesson Focus

#### Group 1: 50 minute periods (weekly):

Vocabulary/Morphology 35–45 minutes Comprehension/Text Reading 170–180 minutes

Attitude/Motivation 15–25 minutes

#### Group 2: 50 minute periods (weekly):

Word Study/Text Reading
Vocabulary/Morphology
Comprehension/Text Reading
Attitude/Motivation
100–110 minutes
35–45 minutes
70–80 minutes
15–25 minutes



### Phrase Fluency Example

in a jar in a jam in a rage in a jar
for a letter from a leader for a letter for a debtor
to his sister to his sibling toward a sister to his sister
to the ball at the hall to the balloon to the ball
on the wing on the swing for the win on the wing





### Does It Make Sense Example?

- "The fish blows in air bubbles and goes limp."
- "It was easily startled by noises, such as the smell of a fire."
- "We were always a loving family, very angry with each other."
- "The two captains agreed that they should alter course. They would both steer their ships in the same direction they had started out going."
- "By 4:00 PM, the wind had intensified. The gusts slowed down."
- "All in all, tarantulas look quite lovely, so they have been portrayed as aggressive killers."
- "Despite their many eyes, tarantulas see well."

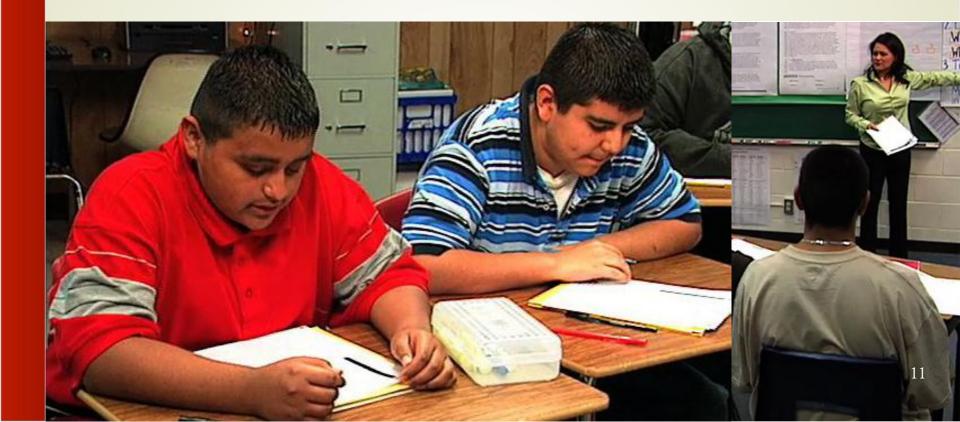


### Comprehension Phrases

- "So maybe he wasn't that fierce in day care, since I'm pretty sure he did hit a kid with his crutch once." (vocabulary)
- "Grim, he's okay sometimes, like when Tony
  D. chased us into the pound, but most of the
  time he thinks he knows everything, which he
  doesn't." (referents)
- It's so dark he has to use a cigarette lighter, and the flame is so puny, you can see to the bottom of the stairs. (no sense)



# Findings Year 3: Tier IV What about Reading Comprehension?





# Findings Year 3: (Tier IV) Decoding and Spelling Cluster

- Woodcock Johnson Letter Word Identification Subtest
  - ES = 0.49
- Woodcock Johnson Word Attack Subtest
  - ES = 0.24





## WJ Letter-Word Identification





### WJ Word Attack





# Findings Year 3: (Tier IV) Fluency Cluster

- AIMSweb Mazes
  - ES = -0.22
- Test of Silent Reading Efficiency and Comprehension (TOSREC)
  - ES = 0.43
- Test of Word Reading Efficiency (TOWRE) Phonemic Decoding Efficiency subtest
  - ES = 0.52
- Test of Word Reading Efficiency (TOWRE) Sight Word Efficiency subtest
  - ES = 0.37



### AIMSweb Maze





## TOSREC





# Test of Word-Reading Efficiency (TOWRE): Phonemic Decoding





# Test of Word-Reading Efficiency (TOWRE): Sight Word





## Findings Year 3: (Tier IV) Comprehension Cluster

- Gates MacGinitie Passage Comprehension subtest
  - ES = 1.20
- Woodcock Johnson Passage Comprehension subtest
  - ES = 0.32



## Gates MacGinitie Passage Comprehension





## WJ Passage Comprehension





# RTI: Decoding and Spelling Cluster

	Adjusted Posttest Means			
Year 3 Measures	Tier IV	Tier I	p - value	Hedges's g
WJ Letter-Word ID	88.76	83.24	0.015	0.49
WJ Word Attack	83.67	80.76	0.123	0.24





## RTI: Fluency Cluster

	Adjusted Posttest Means			
Year 3 Measures	Tier IV	Tier I	<i>p</i> - value	Hedges's g
AIMSweb Mazes	87.99	90.07	0.406	-0.22
TOSRE	76.48	70.88	0.094	0.43
TOWRE Phonemic Decoding	87.39	80.10	0.030*	0.52
TOWRE Sight Word	89.68	85.62	0.195	0.37

<sup>\*</sup>Not significant with Benjamini-Hochberg Correction of the statistical significance of effects with multiple comparisons.



## RTI: Comprehension Cluster

	Adjusted Posttest Means			
Year 3 Measures	Tier IV	Tier I	<i>p</i> - value	Hedges's g
Gates Passage Comprehension	82.78	74.18	0.001	1.20
WJ Passage Comprehension	88.85	85.66	0.146	0.32



### Perspectives

- A comparable study: The Enhanced Reading Opportunities Study
- Two supplemental literacy programs designed as full year courses to replace a ninth grade elective class
- When analyzed jointly, the ERO programs produced an increase of 0.9 standard score point on the GRADE reading comprehension subtests. This corresponds to an effect size of 0.09 standard deviation and is statistically significant

Kemple, J., Corrin, W., Nelson, E., Salinger, T., Herrmann, S., and Drummond, K. (2008). *The Enhanced Reading Opportunities Study: Early Impact and Implementation Findings* (NCEE 2008-4015). Washington, DC National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.



## Perspectives

All Schools	ERO $(n = 1,408)$	Non ERO (n = 1,005)	Est. Impact	ES	<i>p</i> -value
Reading Comprehension Avg. Standard Score	90.1	89.2	.9	.09	.019
Reading Vocabulary Avg. Standard Score	93.4	93.2	.3	.03	.472



# Who are the non-responders after 2 years of intensive intervention?

- "When I open a book, just to see those letters makes me want to go away...[I think] oh, this is frustrating"
- "The words...they are long and you don't know what they mean and stuff"
- "When you read a book it takes too long and you might get bored with the same book"
- "[I don't like] when you don't understand what's going on in the story"
- "Like when I am reading there are a lot of big words that I can't say and sometimes I don't know the words and how am I supposed to get it?"



# Who are the non-responders after 2 years of intensive intervention? (cont.)

#### About a student's content area classes:

"...but they don't tell us anything, like, they expect us to know already how to do it. So they just say 'what is the main idea."

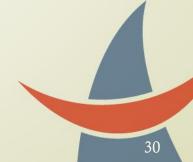




# Who are the non-responders after 2 years of intensive intervention? (cont.)

#### About the intervention class:

• "Ms. S., she takes the time out and tells us what to do and what not to do, or just anything we have problems with, she comes by one-by-one to help us."





## What Does this Mean? Overall Summary

- We do not think that students in middle grades with significant reading problems are likely to make rapid and readily remediated progress in reading.
- Many of these students with low comprehension also demonstrate low vocabulary and limited background knowledge.



# What Does this Mean? Case Study Support

- Student answers were not always what we anticipated (high attendance and fondness of the reading class)
- Still, we are cautious: motivational factors, literacy habits, and lack of support in high school
- Most of these students struggle to express their thoughts; their lack of both reading and oral vocabulary makes it difficult for these students to effectively read and communicate.
- It may be possible that a positive and supportive experience like the reading class may be able to help reverse these negative experiences for some students; but improving actual reading skills remains a challenge.



### Questions

- Is there a need for a Tier 2 intervention in secondary grades or is there only Tier 3?
- Based on the series of studies, what would you recommend for the role of SPED in providing reading interventions for students with reading disabilities?
- Do we think that secondary students with reading disabilities can meet grade level reading expectations?

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