### Collaborative Strategic Reading with Adolescent Struggling Readers: "They were starving for these skills" Sharon Vaughn, The Meadows Center for Preventing Educational Risk, University of Texas at Austin

Janette Klingner,

University of Colorado at Boulder

SSSR, Berlin July 8, 2010

### Other researchers and co-authors:

Elizabeth Swanson, Greg Roberts, Stephanie Stillman-Spisak, & Sarojani Muhammed The Meadows Center for Preventing Educational Risk University of Texas at Austin

Alison Boardman, Subini Annamma, & Amy Boele University of Colorado at Boulder

This study was funded by the U.S. Department of Education Institute of Education Sciences, Project #R305A080608: *Collaborative Strategic Reading (CSR) Interventions for Struggling Adolescent and Adult Readers*.



## Background/Importance

- Many adolescents do not adequately understand complex texts (Biancarosa & Snow, 2004; Kamil, Borman, Dole, Kral, Salingner, & Torgesen, 2008).
- Although we know a great deal about the features of effective reading comprehension instruction, we know less about what it takes to help teachers learn to teach strategies to their students (RAND, 2002).



## Review of the Literature

- Numerous CSR studies conducted over a 12year period, including:
- > 26 8<sup>th</sup> grade ELLs with LD in resource classes (Klingner & Vaughn, 1996).
- Diverse, inclusive 4<sup>th</sup> grade classrooms using social studies texts (Klingner, Vaughn, & Schumm, 1998).
- ▶ 5<sup>th</sup> grade ELL students (Klingner & Vaughn, 2000).
- 5 CSR and 5 comparison 4<sup>th</sup> grade CLD inclusive classrooms using social studies

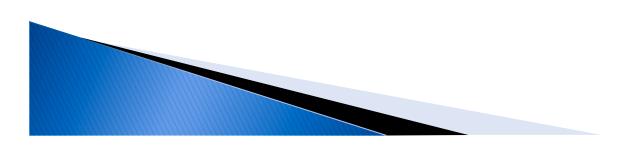
texts (Klingner, Vaughn, Argüelles, Hughes, & Ahwee, 2004).

## Purpose

- The primary purpose of this study was to determine the efficacy of CSR on the reading comprehension of diverse 7<sup>th</sup> and 8<sup>th</sup> grade students. We were particularly interested in the struggling readers in the sample
- To help us understand our quantitative findings and the conditions under which CSR may be most likely to be effective, an additional purpose was to explore teachers' perspectives about which students most benefitted from CSR and which aspects of CSR were most helpful for students.

## Methods

- Multi-site cluster randomized control trials of CSR compared to typical instruction in middle school reading and language arts classrooms. We randomly assigned 7<sup>th</sup> and 8<sup>th</sup> grade students to classes and then classes to treatment or 'business as usual' conditions.
- Qualitative data collection and analysis used to support our understanding of quantitative results.



### The Intervention: Collaborative Strategic Reading (CSR)

#### **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** 

**AFTER READING** 

Wrap-up

1. ASK QUESTIONS:

What questions

understand the

most important

passage?

questions?

2. REVIEW:

information in the

Can we answer the

What are the most

important ideas?

check whether we

#### 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?

### Participants

#### **Teacher Participants**

- ▶ N = 17
- Teaching experience
  - Range = 1-35 years
  - $\circ$  Mean = 9.5
  - Median = 8.5
- 11 teachers hold multiple certifications

#### **Student Participants**

- N = 782 7<sup>th</sup> and 8<sup>th</sup> graders
- 61 classes (34 CSR;
   27 TYP)
- CSR average age: 13.9
- TP average age: 13.7



#### In CSR classes, teachers asked to:

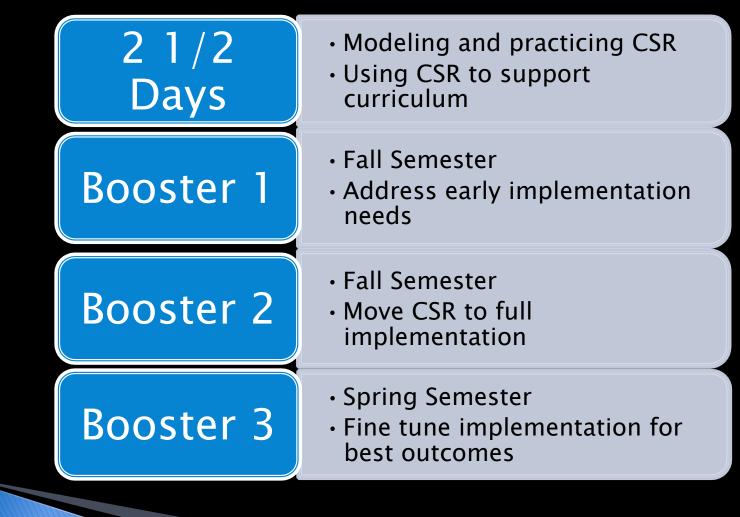
Implement CSR 2–3 times each week
Maintain high fidelity of implementation
Use predominately non-fiction reading materials aligned with curriculum In typical classes, the <u>same</u> teachers asked to:

Use methods and materials that they typically use in their classes
Avoid "bleeding" of CSR strategies into typical practice classrooms

## Data Sources

- Student measures
  - Gates-MacGinitie Reading Comprehension Test
  - AIMS, TOSRE, MSI, TOWRE (struggling readers only)
- Teacher measures
  - Classroom observations (one per month, with field notes)
  - Two observations per teacher with Implementation Validity Checklists
  - Two audio recordings during school year, rated with Implementation Validity Checklists
  - Teachers' semi-structured reflections
  - Teacher interviews
  - Students' learning logs

## **Professional Development: Group support activities**



## **Professional Development: Individual Support (Coaching)**

- In-class observation with feedback
- In-class model lessons
- •Co-teach/float/work with students
  - •Extended time with students allows coach to provide feedback to teacher about how students are using strategies in their groups.
- Meet with teacher outside of class time
  Answer questions via email posed by teacher
  Provide suggestions related to non-CSR instructional needs (e.g., class management)
  Provide materials/help identify readings

### Quality of Overall CSR Implementation: Fidelity Observation Score Means

|          | Means* | Range of Teacher Mean Scores |
|----------|--------|------------------------------|
| Texas    | 4.29   | 2.75 to 6.25                 |
| Colorado | 4.42   | 2.75 to 5.75                 |

\*Minimum Score = 1; Maximum Score = 7 *Note*: Inter-rater reliability established across sites.



#### CSR Implementation: Mean Number of CSR Sessions Reported

| School      | Sessions |
|-------------|----------|
| <b>CO</b> 1 | 30       |
| CO 2        | 43       |
| CO 3        | 39*      |
| CO 4        | 24, 28*  |
| TX 1        | 39*      |
| TX 2        | 36       |

\*Not a mean; these schools had one teacher in the study. *Note*: 50 sessions was the goal.

### Full Sample Descriptive Statistics

|         | Pretest M ( <i>s</i> ) |              | Posttest M ( <i>s</i> ) |              |
|---------|------------------------|--------------|-------------------------|--------------|
|         | Gates-<br>MacGinitie   | AIMSweb      | Gates-<br>MacGinitie    | AIMSweb      |
| Typical | 95.68(13.4)            | 92.64 (12.1) | 95.48 (13.4)            | 93.46 (11.0) |
| CSR     | 96.35 (13.7)           | 91.91 (10.8) | 97.13 (13.6)            | 92.92 (11.0) |



#### Struggling Readers Descriptive Statistics

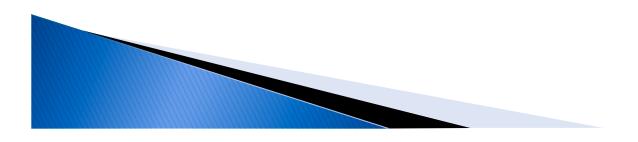
|         | Pretest M ( <i>s</i> ) |              | Posttest M ( <i>s</i> ) |              |
|---------|------------------------|--------------|-------------------------|--------------|
|         | Gates-<br>MacGinitie   | AIMSweb      | Gates-<br>MacGinitie    | AIMSweb      |
| Typical | 84.37(10.0)            | 85.81 (8.75) | 84.25 (9.08)            | 86.30 (7.97) |
| CSR     | 85.62 (11.2)           | 85.13 (8.01) | 87.74 (9.95)            | 86.60 (7.37) |



#### Level 1 Model-Adjusted Means for Full Sample

|                      | TP (SE)      | CSR (SE)     | $\Delta \chi 2 / \Delta df$ (p) |
|----------------------|--------------|--------------|---------------------------------|
| Gates-<br>MacGinitie | 95.87 (.534) | 97.04 (.535) | 9.91/1 (.002)                   |
| AIMSweb              | 93.42 (.447) | 92.53 (.433) | 1.13/1 (.287)                   |

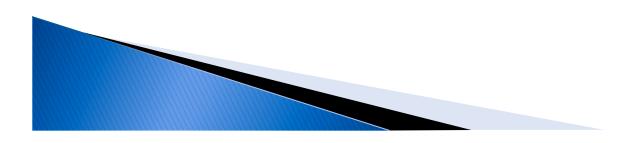
Effect size g for difference between CSR and TP groups = .12



#### Level 1 Model-Adjusted Means for Struggling Readers

|                      | TP <i>(SE)</i> | CSR (SE)     | $\Delta \chi 2 / \Delta df$ (p |
|----------------------|----------------|--------------|--------------------------------|
| Gates-<br>MacGinitie | 84.52 (1.33)   | 87.66 (.961) | 3.38/1 (.066)                  |
| AIMSweb              | 86.44 (1.42)   | 86.32 (.84)  | .01/1 (.920)                   |

Effect size g for difference between CSR and TP groups = 0.36



## Teachers' Perceptions of CSR Benefits

- CSR benefits diverse learners:
  - •Struggling readers (benefit the most)
  - •English language learners
  - •Average readers
  - •All students
- CSR helps students:
  - •Focus
  - Increase involvement
  - Monitor understanding

- •Read strategically
- Students enjoyed CSR, particularly because of the group work aspect. Students appreciated the independence and the chance to work with their peers.

## Next steps...

- This year we continued with the same teachers (but new students).
- We intensified our coaching efforts, visiting teachers' classrooms every week at the beginning of the year, and then every two weeks once CSR seemed to be working well.
- Teachers improved in their implementation of CSR and were able to focus more on the quality of students' strategy-guided, content-focused discussions.



### Additional questions...

- Why are we seeing gains on the Gates-MacGinitie? What are we really improving?
- What is the relationship between cooperative learning and strategy instruction in CSR?
- Which CSR strategies are most "important"?
- How important is the text (in terms of topic, structure, difficulty level)?



# What does it take to help teachers learn to teach comprehension strategies?

- It may take many teachers 2 years to learn to implement a complex instructional approach such as CSR, and require lots of support.
- Helping teachers learn to teach reading comprehension is hard work.
- Which teacher characteristics influence successful instruction of reading comprehension?
- How can we tailor our professional development and coaching to match teachers' characteristics and needs?

How can we scale up the kinds of intensive PD support strategy instruction seems to take?

### Conclusion

"It's a really good tool um, but it takes work and you really have to put the work in for it to be successful. You do and so do the kids and they need to know that from the very beginning and if you're willing, ya know, if you get your kids to get committed to it and you're committed to it, then yeah, it can be a great thing. Cuz I mean they're all wonderful reading strategies that you are trying to do anyway. This just kind of gives you extra support I think but it is a commitment. It is a commitment and you just have to kind of grin and bear it until you get there."