

63<sup>RD</sup> CONFERENCE ON EXCEPTIONAL CHILDREN

# Believing In Achieving

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## Using TRC to improve the prediction accuracy of DORF on the Third Grade Reading EOG

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## Significance of the Project

- Large numbers of students are scoring below minimal levels of proficiency on standardized reading measures
  - 33% of 4th grade students
    - NCES, 2011
- 37% of third grade NC students perform below proficiency on reading comprehension
  - NC DPI



## Consequences

- Read less (Stanovich, 1986)
- Longer to remediate (Torgesen et al., 1999)
- Rarely catch-up (Francis et al., 1996; Juel, 1988)
- More likely to drop out
  - 13,488 drop-outs in 2011-12 (NCDPI, 2013)



# Responsiveness to Instruction (RtI)

- Leadership & Shared Responsibility
- Curriculum & Instruction
- Problem-Solving/Data Based Decision Making
- Assessment
- Family & Community Partnerships
- Sustainability & Integration



# Assessment in RtI

- Screening
  - All students
  
  - Brief
  
  - Identify
    - Areas of weakness
    - Individual students



# Characteristics of Good Screens in RtI Context

- Find students who need additional support
- Students who will not need support are not identified as struggling



# Decision-Making

- High stakes or low stakes?
- Multiple measures encouraged
  - Compton et al., 2006; Johnson et al., 2007;  
Gersten et al 2008



# Oral Reading Fluency (ORF)

- Reliable and valid
- Easily communicate
- Brief
- Sensitive to short-term progress
- Minimal cost (time, money, personnel)

– Deno, 1985



## Value

- Formatively assessing students can lead to an increase of student academic achievement from the 50<sup>th</sup> to 76<sup>th</sup> percentile

– Fuchs & Fuchs, 1986

Formative Assessment

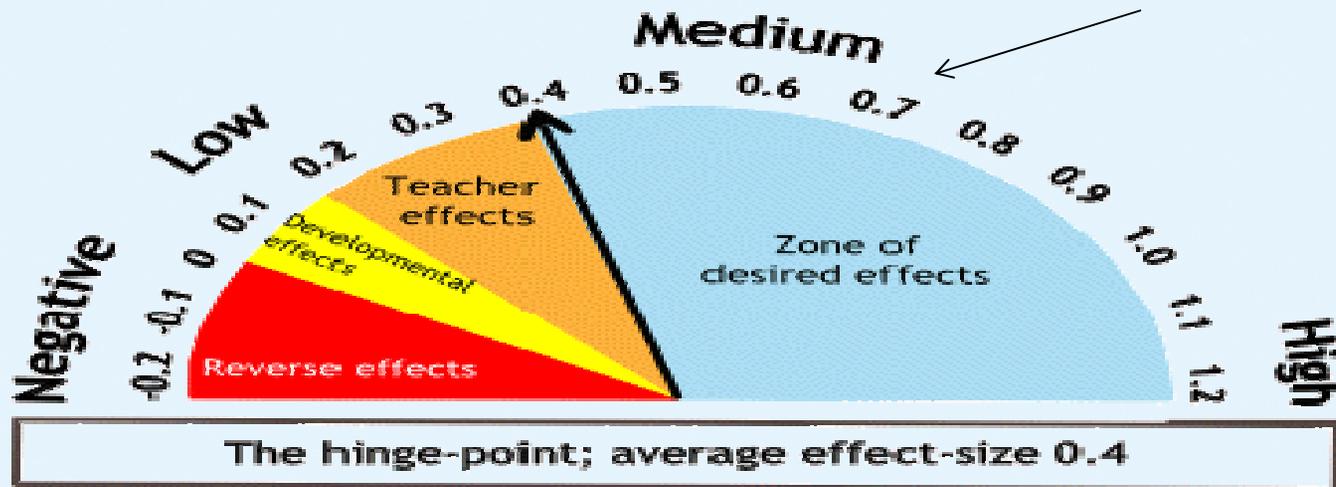


Image by John Hattie from "Visible Learning"



## ORF and Reading

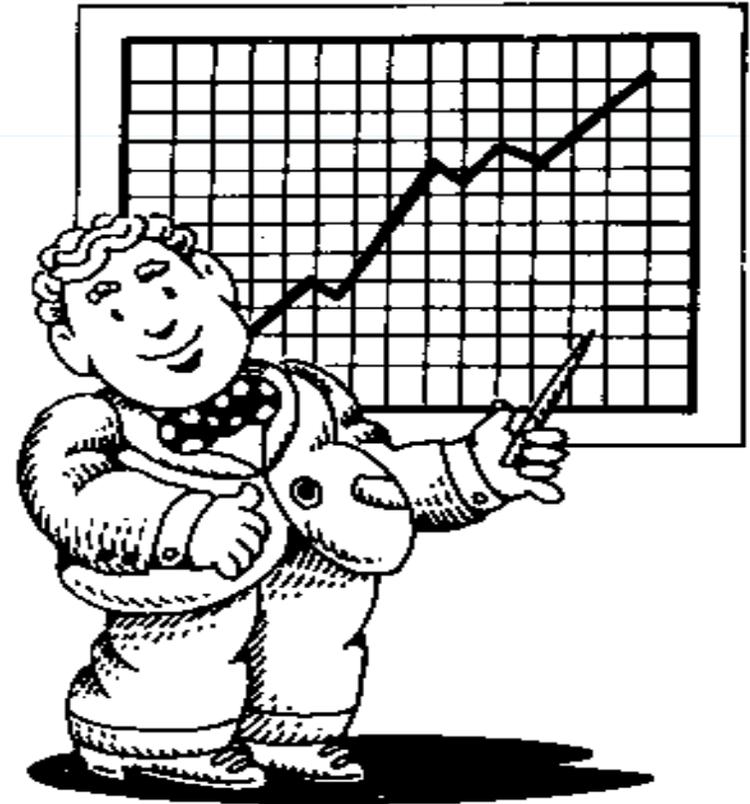
- Strong relationship with reading comprehension (Fuchs, Fuchs, Jenkins, Hosp, 2001; NRP, 2000)
- Overall indicator of reading “health”
  - (Wayman et al., 2007)





# ORF and State Standards Tests

- Strong relation
  - Barger 2003
  - Good et al 2001
  - Scheffel et al 2012
  - And a bunch more!





## Question

- Does Text Reading and Comprehension (TRC) improve accuracy of DIBELS ORF (DORF) risk status for predicting EOG outcomes?



# Participants

- 5 elementary schools
- EOG  $m = 338$  (below state  $m = 340$ )
- White 37%, African American 22%, Latino 25%
- ELL: 21%
- Free-reduced: 55% – 90%
- SE eligible: 14%



## Measures

### Text Reading and Comprehension (TRC)

- Running Record
- Comprehension (oral & written)
- 5-8 minutes

### DIBELS ORF (DORF)

- Read aloud 3 grade level passages
- 4-6 minutes



## Method

- 2<sup>nd</sup> grade cohort
- DORF and TRC time points (2010-12)
- 3<sup>rd</sup> grade EOG (spring 2012)



## Relation of DORF and EOG

- Moderate to strong
- Temporal
- Comparable to other studies



## 2<sup>nd</sup> Winter DORF Low Risk

- Overall Correct Classification: 70%
- <68 WRC and Fail EOG: 70%
- >68 WRC and Pass EOG: 70%



## 2<sup>nd</sup> grade Winter DORF (Low Risk) & TRC

- Overall Correct: 68%
- 48% *at-risk* who *failed* EOG  
(42 hits; 46 miss)
- 82% *not at-risk* who *pass* EOG  
(103 hits; 23 miss)



## 3<sup>rd</sup> Fall DORF

- Overall Correct Classification: 70%
- <77 WRC and Fail EOG: 66%
- >77 WRC and Pass EOG: 73%



## 3<sup>rd</sup> grade Fall DORF (Low Risk) & TRC

Overall Correct: 73%

50% *at-risk* who *failed* EOG (18 hits; 19 miss)

81% *not at-risk* who *pass* EOG (85 hits; 20 miss)



# 3<sup>rd</sup> Fall DORF (At Risk + Some Risk) + TRC

Overall Correct: 70%

*77% at-risk (79 hits; 23 miss)*

*57% not at risk (28 hits; 21 miss)*



## Adjustment Comparison

>77 wrc

Overall: 70%

At-risk: 66%

101 Hits; 51 Miss

Not at-risk: 73%

105 Hits; 39 Miss

>90 wrc

Overall: 65%

At-risk: 59%

120 Hits; 85 Miss

Not at-risk: 78%

71 Hits; 20 Miss



## How can I apply results for my students?

	<u>EOG</u>	
	Fail	Pass
DORF + TRC Fail	True Positive* A	Over-referral B
DORF + TRC Pass	Under-referral C	True Negative* D



# Using Results to Inform Instruction

## Making the Instructional Match Four Quadrant Instructional Sort

<p><b>Quadrant 1</b> <b>Accurate and Fluency Reader</b></p> <p>Dig Deeper in the areas of reading comprehension, including vocabulary and specific comprehension strategies.</p>	<p><b>Quadrant 2</b> <b>Accurate and Slow Reader (lack of automaticity)</b></p> <p>Build reading fluency skills. (Repeated Reading, Paired Reading, etc.) Embed comprehension checks/strategies.</p>
<p><b>Quadrant 3</b> <b>Inaccurate and Slow Reader</b></p> <p>Conduct an error analysis to determine instructional need. Teach to the instructional need paired with fluency building strategies. Embed comprehension checks/strategies. For significant decoding issues consider a EB intervention program</p>	<p><b>Quadrant 4</b> <b>Inaccurate and Fluent Reader</b></p> <p>Conduct Table-Tap Method*. If student can correct error easily, teach student to self-monitor reading accuracy. If reader cannot self-correct errors, complete an error analysis to determine instructional need. Teach to the instructional need.</p>



## Closing

- Addition of TRC
- Hits/Misses
- Extra measure or adjusts scores



# Questions?





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## Using Text Reading and Comprehension (TRC) to Enhance the Predictive Accuracy of the Dynamic Indicators of Basic Early Literacy Skills Oral Reading Fluency (DIBELS DORF) subtest on the Third Grade End-of-Grade (EOG) Reading Comprehension Test

### Brief Task Analysis to Create a Diagnostic Efficiency Matrix

Place students who fail the screen *and* fail the EOG in Box A.

Place students who fail the screen, *but* pass the EOG in Box B.

Place students who pass the screen, *but* fail the EOG in Box C.

Place students who pass the screen *and* pass the EOG in Box D.

Screening Measure	EOG		
	Fail	Pass	
DORF + < Prof. TRC	A True Positive	B (Over referral)	A + B
DORF + > Prof. TRC	C (Under referral)	D True Negative	C + D
			$N = \text{Total \# of students}$ (A + B + C + D)

### Formulas for Calculating Identification Percentages

Percentage of students identified as *at risk* on the screen who fail the outcome test

$$A / (A + B)$$

Percentage of students identified as *not at risk* on the screen that pass the outcome test

$$D / (C + D)$$

Summative measure used to describe the proportion of students who are correctly identified as either *at risk* or *not at risk*

$$(A + D) / N$$