

# REL-Southeast: Using Research to Strengthen Response to Intervention Decision Making and Intervention

Secondary-Level Interventions

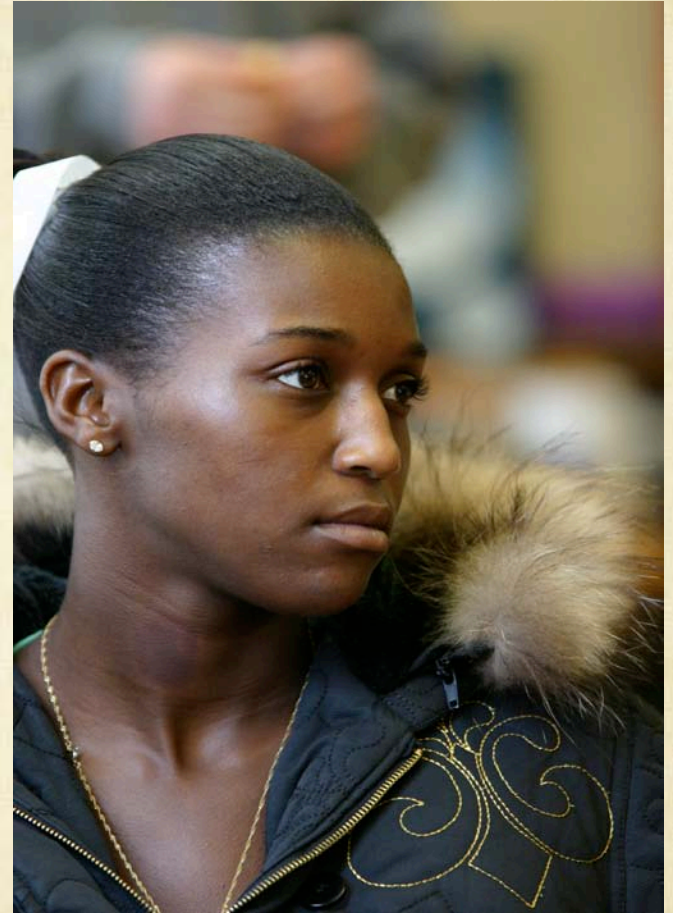
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University of Kansas Center for Research on Learning

March 12, 2009

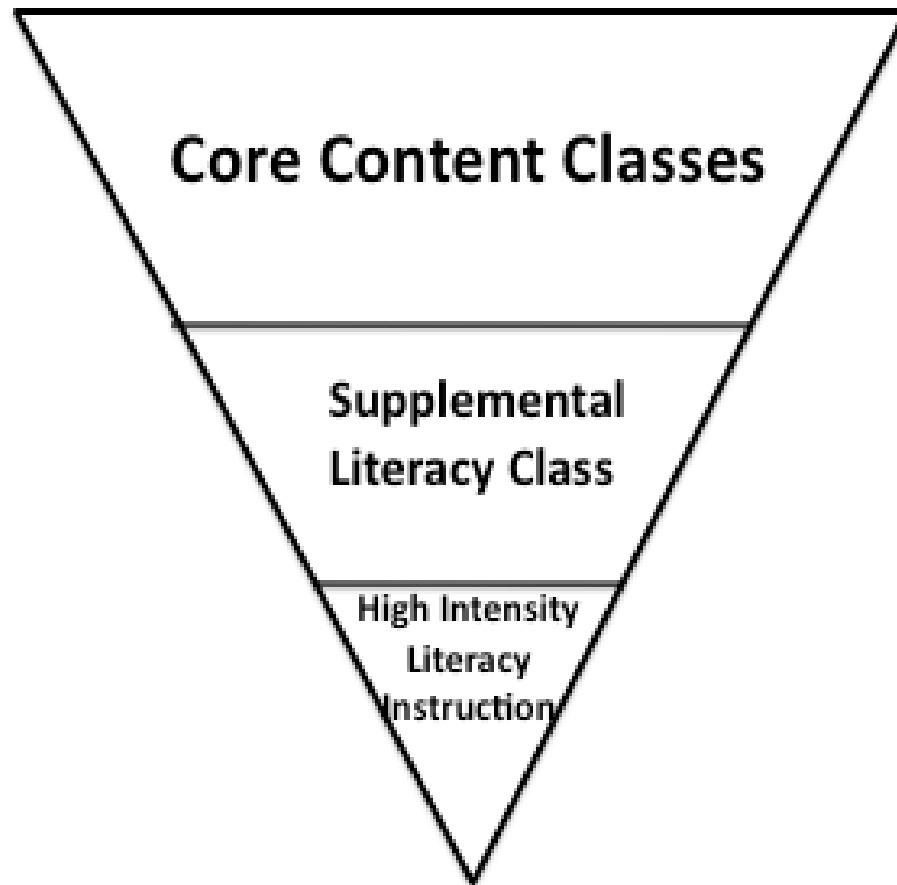
# Our Purpose.....

To learn about research-based secondary level interventions applicable to a Response to Intervention framework



# What do we know about RtI frameworks?

## Response to Intervention Model



**All Students:** Delivery of rigorous content so that **all** students increase their knowledge of content and the world.

**Some Students:** Explicit and intensive instruction in literacy skills and strategies for students unable to respond to content class instruction

**Few Students:** Highest level of intensive instruction (small groups or 1 : 1) in literacy skills and Strategies.

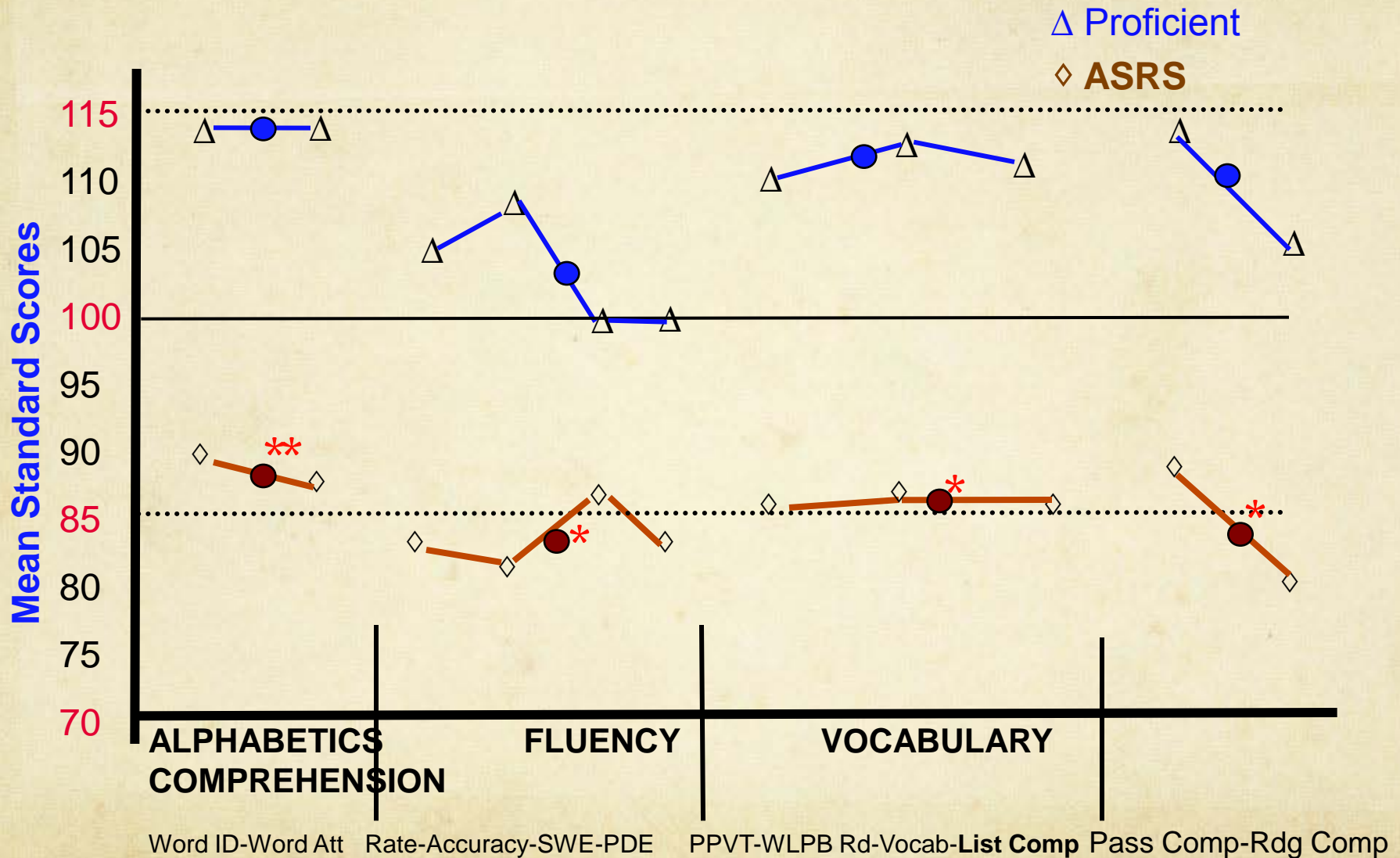
# What do we know about the literacy skills of secondary-level students?

- Two recent studies
  - A descriptive study of the reading skill profile of students in urban schools
  - A latent class analysis of struggling readers in urban schools

# The Kansas Reading Skill Study: Student Population

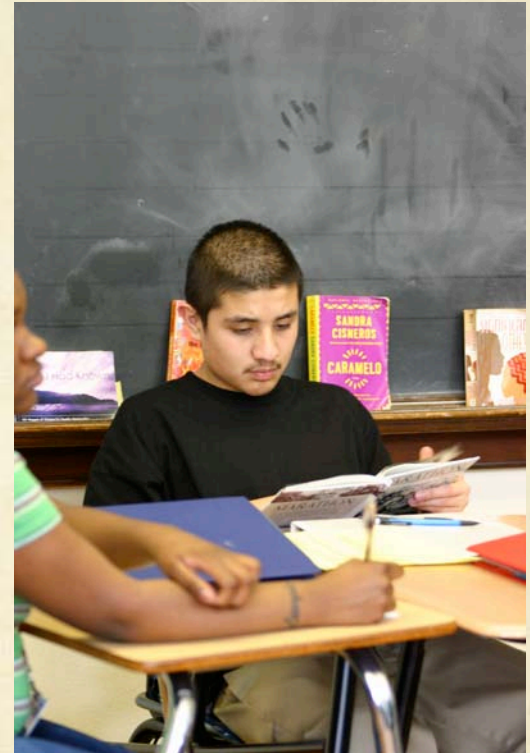
- **345 Students attending urban secondary schools (some non urban students)**
- **Spring 8th to Fall 9th grade placement during assessment**
- **Mean age 14.9 years, range 13.3 to 17.2**
- **55% male 45% female**
- **70% economically disadvantaged**
- **52% African American; 29% White; 15% Hispanic; 2% Asian; .9% Native American; .6% Multi-Ethnic**

# Reading Component Profile



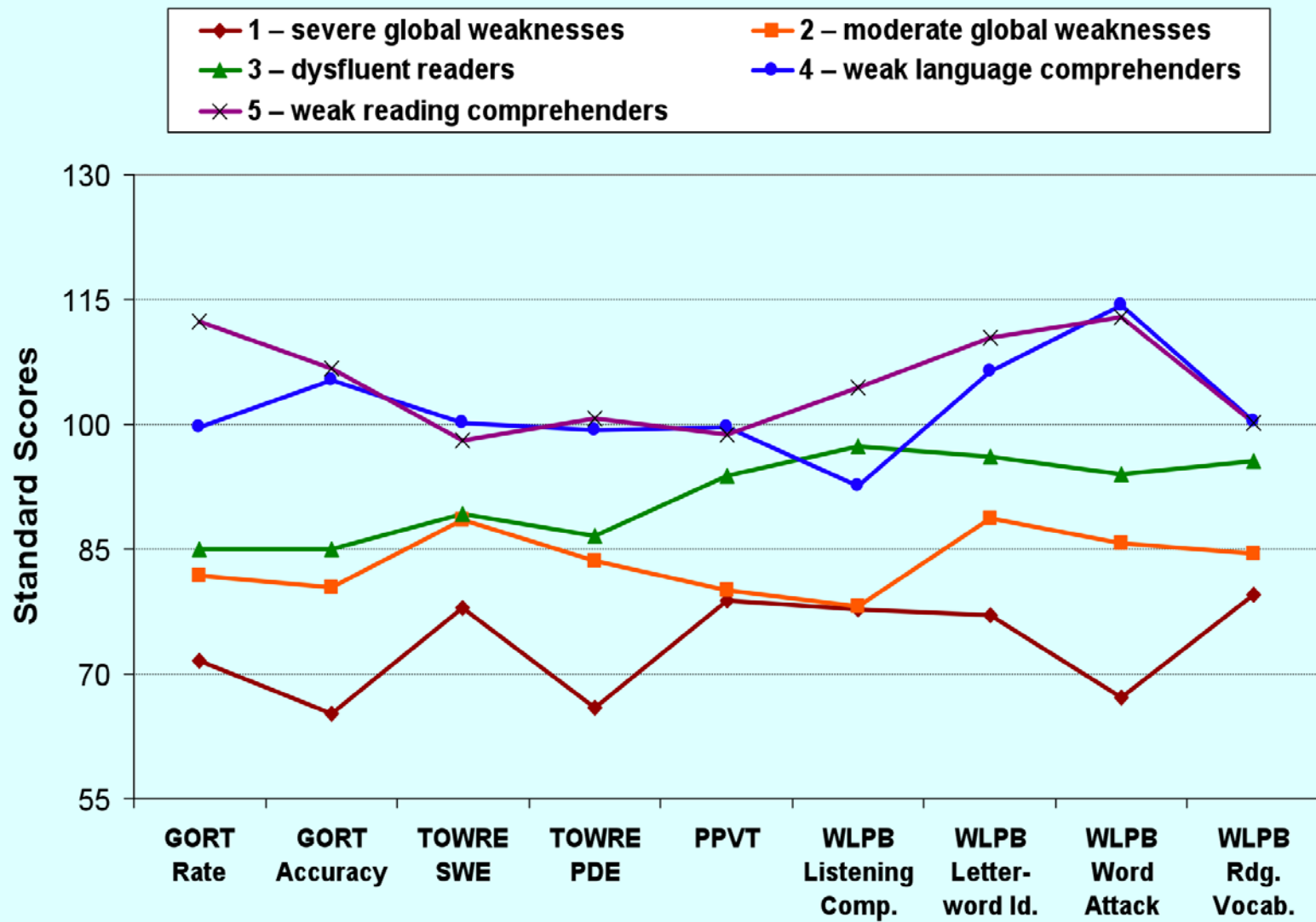
Hock, M. F., Brasseur, I. F., Deshler, D. D., Catts, H. W., Marques, J., Mark, C. A., & Wu Stribling, J. (2009). What is the reading component skill profile of adolescent struggling readers in urban schools? *Learning Disability Quarterly*, 32(1), 21-38.

# A Latent Class Analysis: What “clusters” of struggling readers emerge from the data?



# Profiles of Below Average Comprehenders

Figure 1. Line plot with mean standard score on each component reading skill for the five profiles of below average comprehenders, based on the five-class solution (n = 318).



# Implications

- High prevalence of Adolescent Struggling Readers with difficulties in **all** skills including word-level decoding accuracy
  - 60% in descriptive study classification scheme
  - Two profiles totaling 51% in LCA analysis
- Findings argue for importance of diagnostic assessment & a **coordinated array of interventions** (e.g., RtI Framework?)

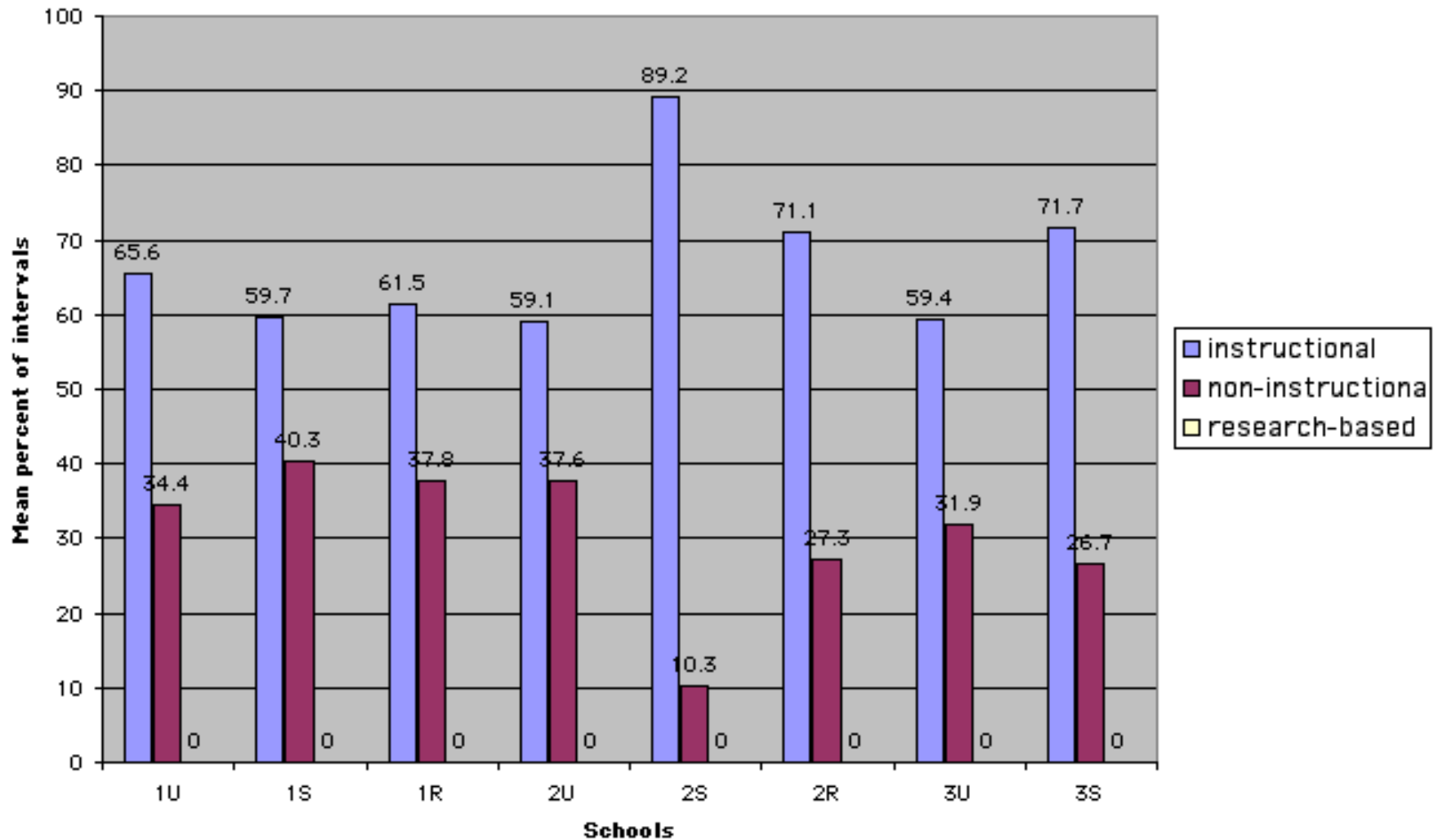
# What do we know about instructional context in secondary schools?

Schumaker, J.B., Lenz, B.K., J. Bulgren, J.A., B. Grossen, D.B., Marquis, J. & Deshler, D.D. (2002). The educational context and outcomes for high school students with disabilities: Special education programs and the perceptions of special education teachers. The University of Kansas Center for Research on Learning. **Institute for Academic Access:** Sponsored by the U.S. Department of Education, Office of Special education programs, Grant # 84.324S

Schumaker, J.B., Deshler, D.D., Bulgren, J.A., Davis, B., Lenz, B.K., J., & Grossen, B. (2005). Access of adolescents with disabilities to the general education curriculum: Myth or reality? In T.M. Skrtic, K.R. Harris, & J.G. Shriner (Eds.) Special education policy and practice: Accountability, instruction, and social challenges (129-155) Denver, CO: Love Publishing.

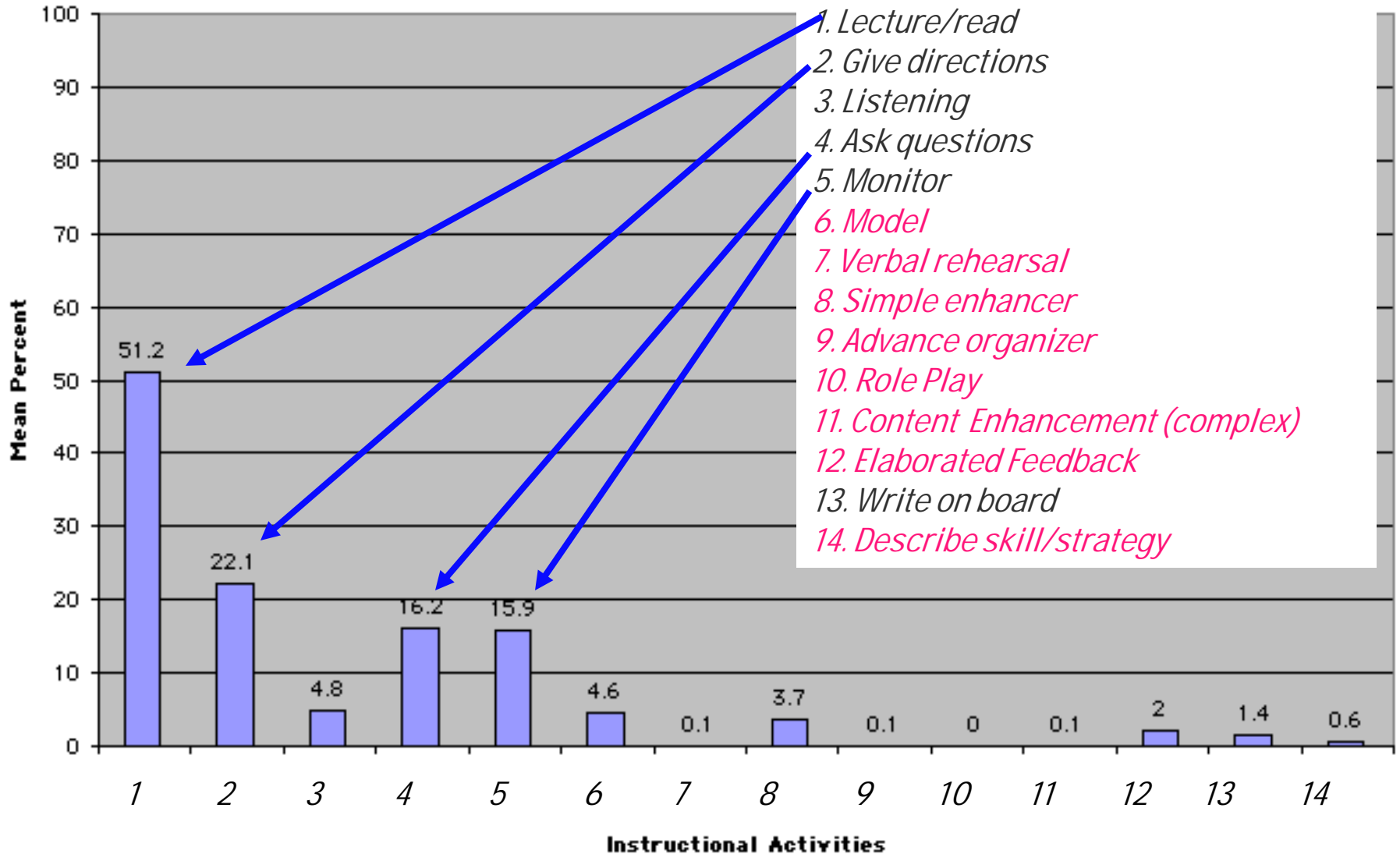
# How Do General Education Teachers Spend Class Time?

General Education Teacher Observation Interval Type



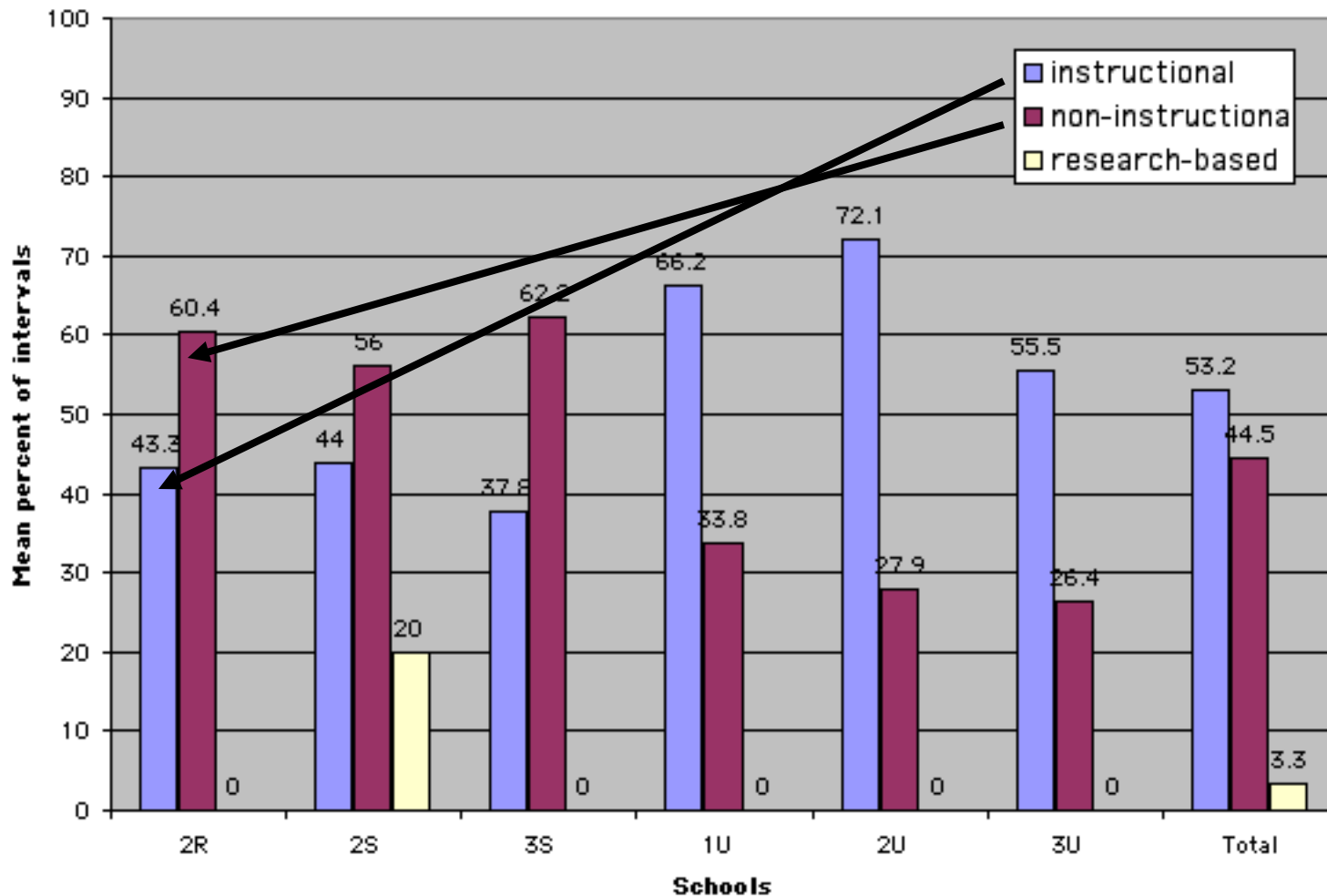
# What activities do teachers use during instruction?

## General Education Teacher Observation



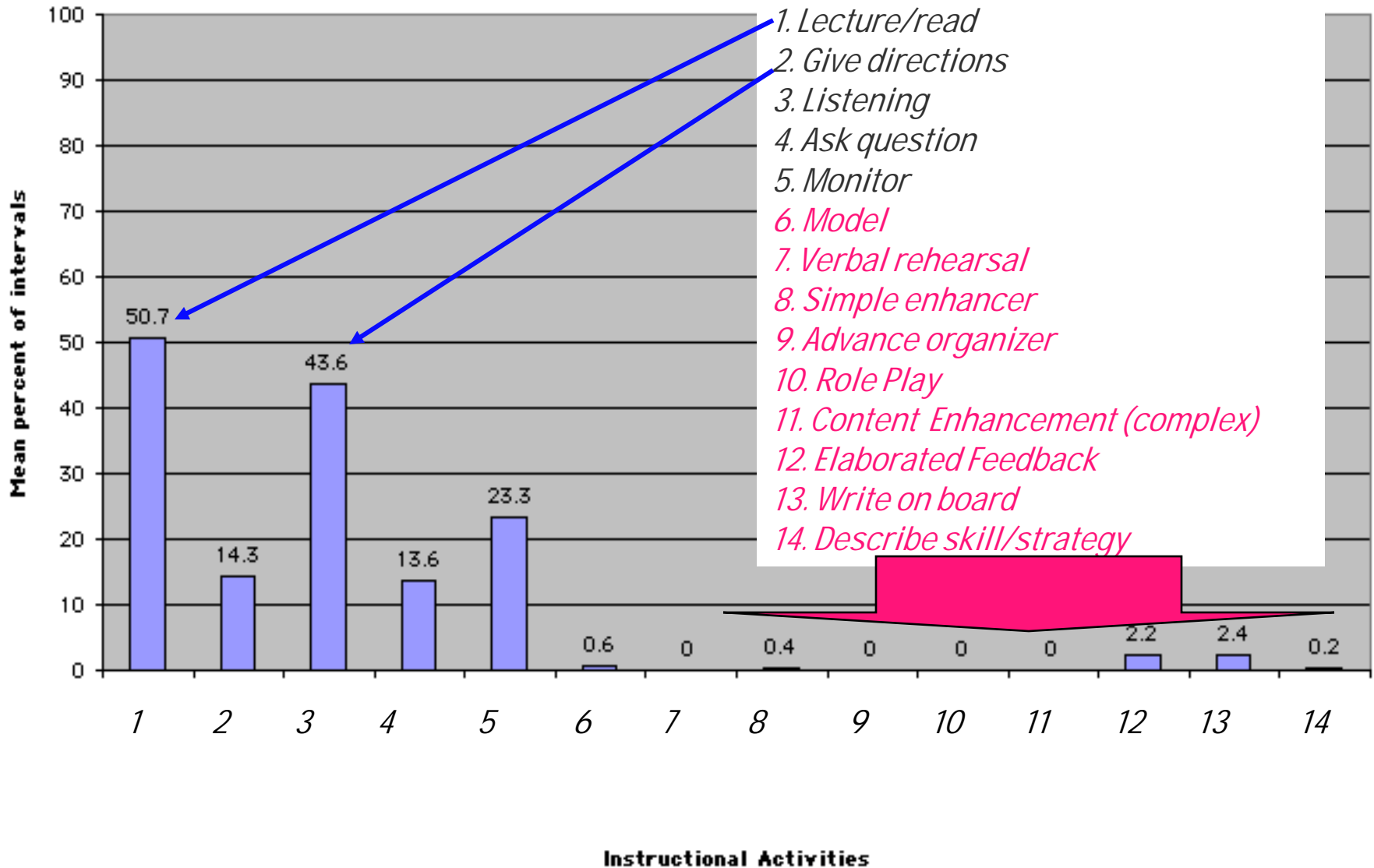
# How Do Special Education Teachers Spend Class Time?

**Mean percentage of intervals special education teachers were observed in various activities for each school.**



# What activities do Sp. Ed. teachers use during instruction?

## Special Education Teacher Observations



# What Works With Secondary Level Learners: Informative Meta-Analyses and Research Syntheses

- ❖ *Improving Adolescent Literacy: Effective Classroom and Intervention Practices: A Practice Guide.* Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., and Torgesen, J. (2008). (NCEE #2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc>.
- ❖ *Effective Reading Programs for Middle and High Schools: A Best-Evidence Synthesis.* Slavin, R.E., Cheung, A., Groff, C., & Lake, C. (2008). *Reading Research Quarterly*, 43(3), 290-322.
- ❖ *Interventions for Adolescent Struggling Readers: A Meta-analysis with Implications for Practice.* Scammacca, N., Roberts, G., Vaughn, S., Edmonds, M., Wexler, J., Reutebuch, C.K., & Torgesen, J. K. (2007). Portsmouth, NH: RMC Research Corporation, Center on Instruction.
- ❖ *Adolescent Literacy Resources: An Annotated Bibliography.* Center on Instruction. (2009). Second edition. RMC Research Corporation, Portsmouth, NH: Author.

# Key Findings from Implementation Studies

Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., and Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices: A Practice Guide (NCEE #2008-4027)*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc>.

- Provide explicit vocabulary instruction
- Provide direct and explicit comprehension strategy instruction
- Provide opportunities for extended discussion of text meaning and interpretation
- Increase student motivation and engagement in literacy learning
- Make available intensive individualized interventions for struggling readers that can be provided by qualified specialists

# Tier I: Key Findings

- Provide explicit vocabulary instruction
- Provide opportunities for extended discussion of text meaning and interpretation
- Increase student motivation and engagement in literacy learning

# Tier I Example

## Content Enhanced Instruction

- CONTENT ENHANCEMENT ROUTINES
- WHAT ARE THEY?
- HOW DO THEY WORK
- WHAT EVIDENCE DO WE HAVE?

# Content Enhancement Routines

“Growing Knowledge”

## Planning and Organizing

Course Organizer  
Unit Organizer  
Lesson Organizer

## Teaching Concepts

Concept Mastery Routine  
Concept Anchoring Routine  
Concept Comparison Routine

## Explaining Text Structures, Topics, and Details

Framing Routine  
Survey Routine  
Clarifying Routine

## Increasing Performance

Quality Assignment Routine  
Question Exploration Routine  
Recall Enhancement Routine  
LINCing Vocabulary Routine

# The Unit Organizer

④ BIGGER PICTURE

NAME Elida Cordora  
DATE 1/22

← The roots and consequences of civil unrest. →

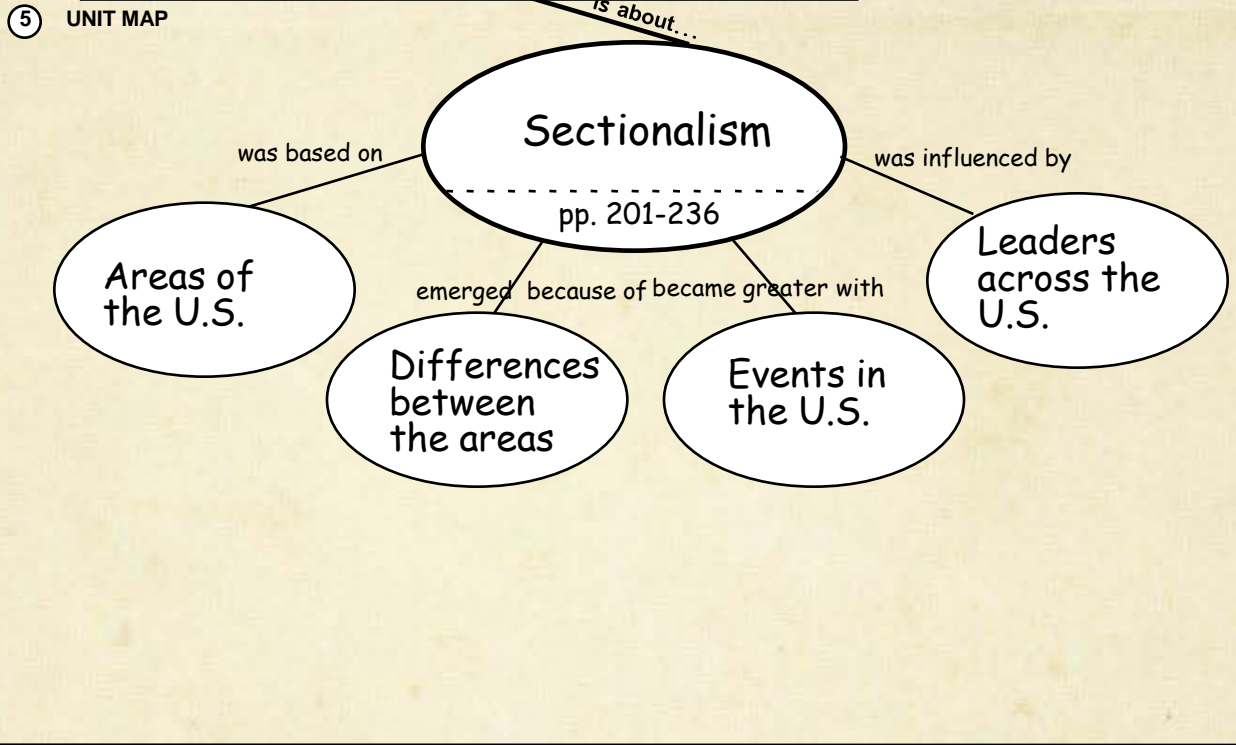
② LAST UNIT /Experience  
**Growth of the Nation**

① CURRENT UNIT  
**The Causes of the Civil War**

③ NEXT UNIT /Experience  
**The Civil War**

⑧ UNIT SCHEDULE

1/22	Cooperative groups - over pp. 201-210
1/28	Quiz
1/29	Cooperative groups - over pp. 210-225
	"Influential Personalities" project due
1/30	Quiz
2/2	Cooperative groups - over pp. 228-234
2/6	Review for test
2/7	Review for test
2/6	Test



⑦ UNIT SELF-TEST QUESTIONS

What was sectionalism as it existed in the U. S. of 1860?
How did the differences in the sections of the U.S. in 1860 contribute to the start of the Civil War?
What examples of sectionalism exist in the world today?

⑥ UNIT RELATIONSHIPS

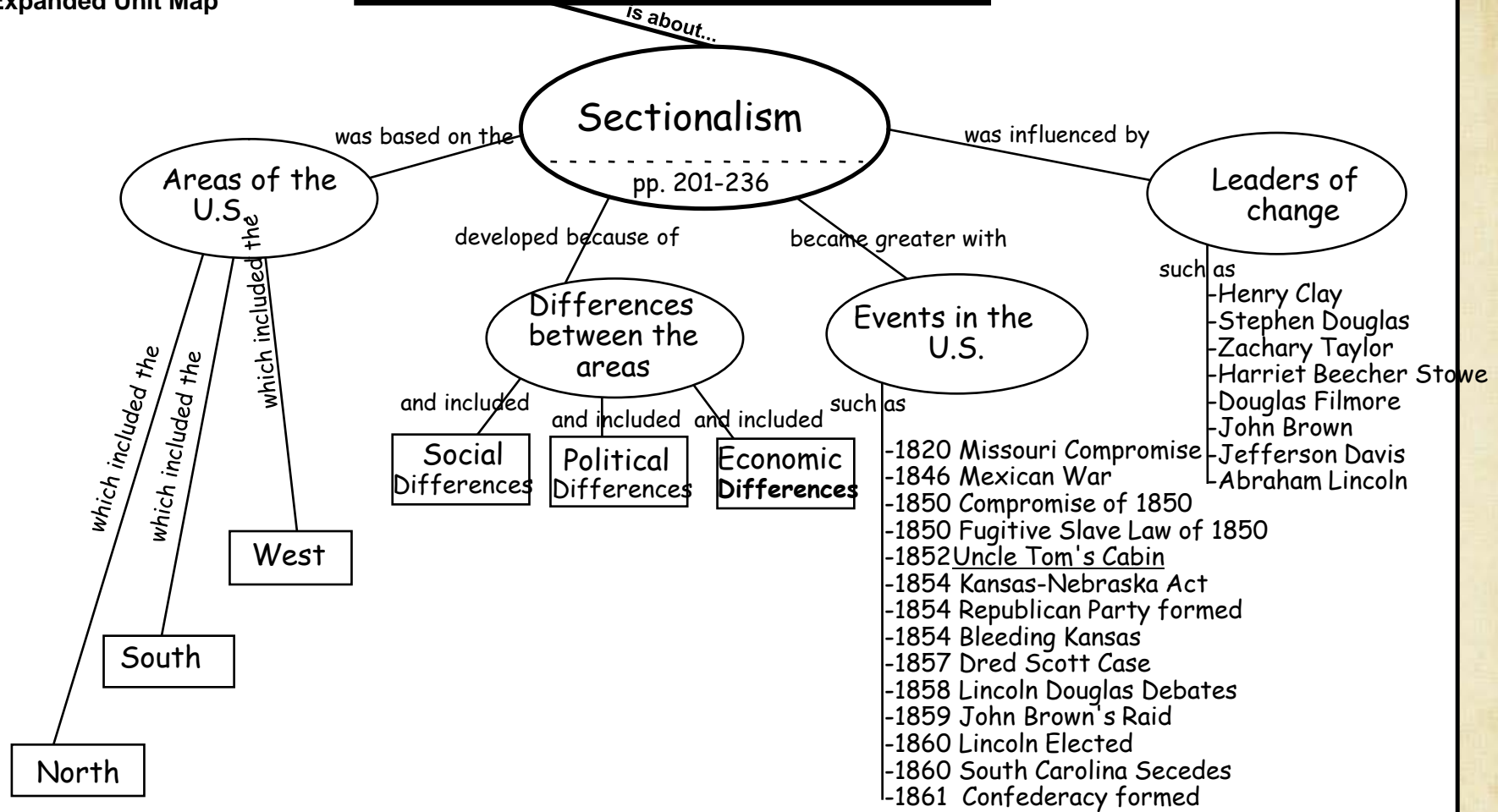
descriptive
compare/contrast
cause/effect

# The Unit Organizer

## The Causes of the Civil War

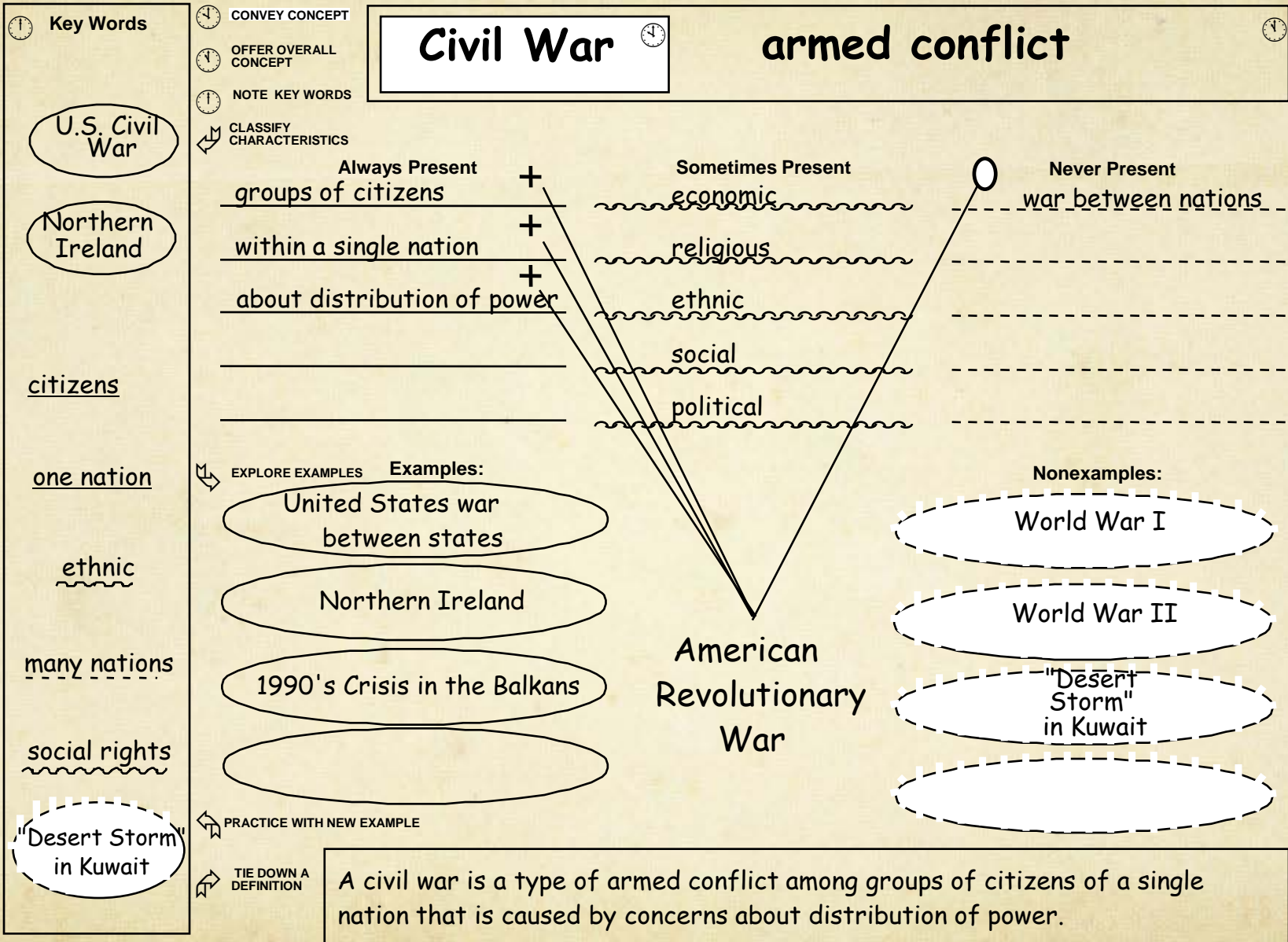
NAME Elida Cordora  
DATE 1/22

### 9 Expanded Unit Map



How did national events and leaders pull the different sections of the U.S. apart?

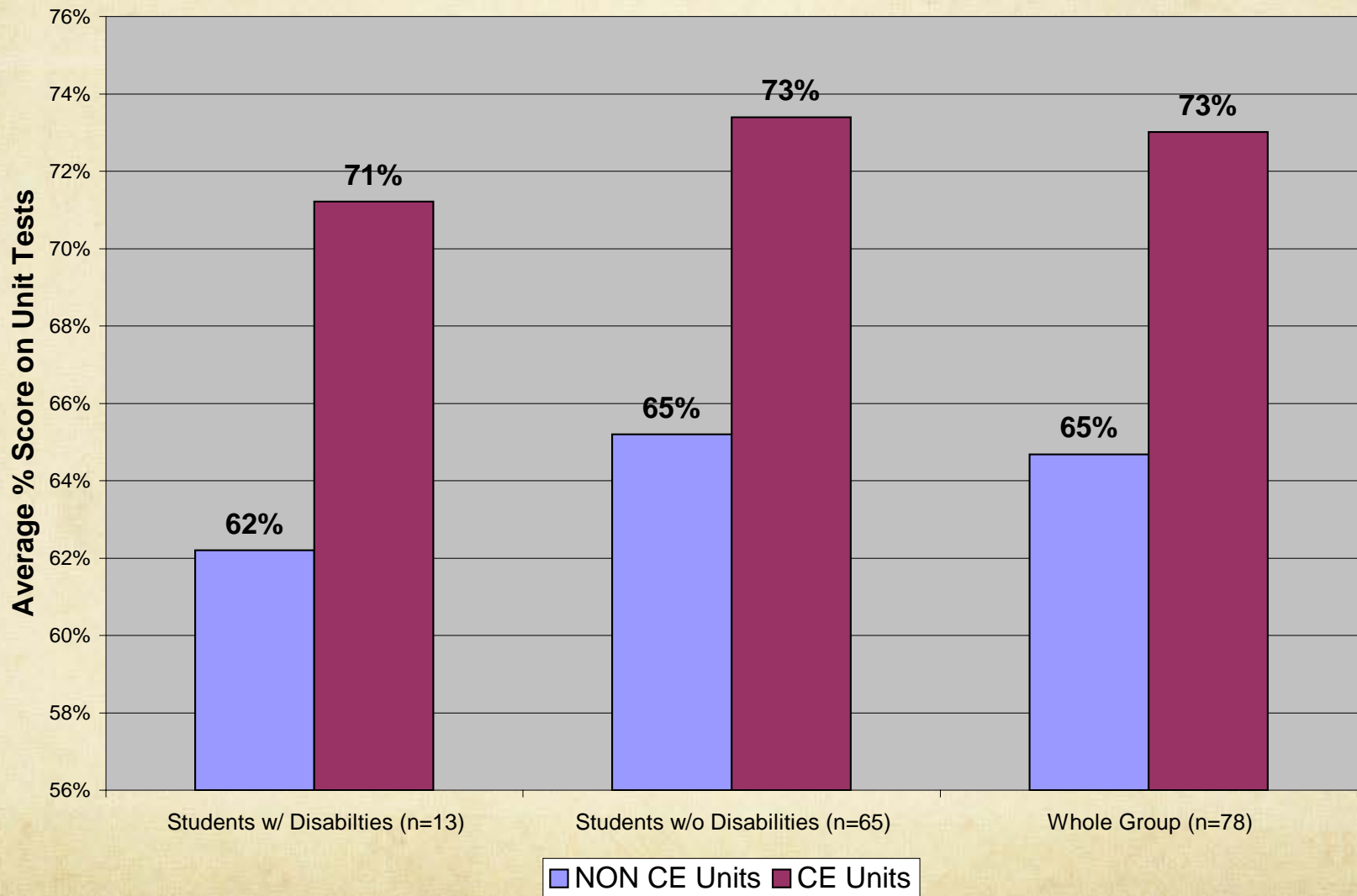
# CONCEPT DIAGRAM



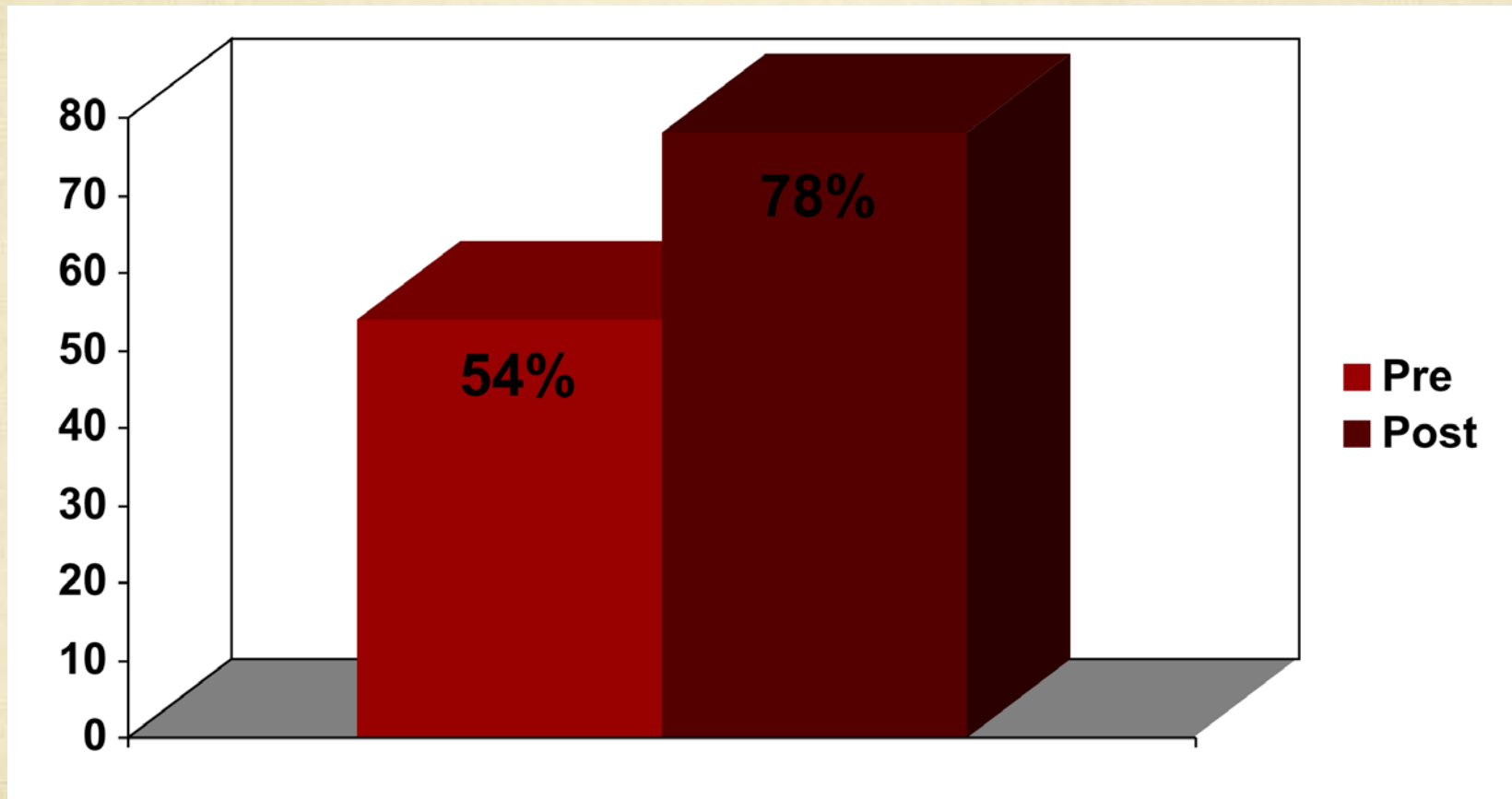
# Evidence Supporting Content Enhancement Instruction

- Bulgren, J.A., Deshler, D.D., & Schumaker, J.B. (1997). Use of a recall enhancement routine and strategies in inclusive secondary classes. *Learning Disabilities Research & Practice, 12*(4), 198-208.
- Bulgren, J. A., Deshler, D. D., Schumaker, J. B., & Lenz, B. K. (2000). *The use and effectiveness of analogical instruction in diverse secondary content classrooms.* *Journal of Educational Psychology, 92*(3) 426-441.
- Bulgren, J.A., Lenz, B.K., Schumaker, J.B., Deshler, D.D., & Marquis, J.G. (2002). The use and effectiveness of a comparison routine in diverse secondary content classrooms. *Journal of Educational Psychology, 94*(2), 356-371.
- Bulgren, J.A., Schumaker, J.B., & Deshler, D.D. (1994). The effects of a recall enhancement routine on the test performance of secondary students with and without learning disabilities. *Learning Disabilities Research and Practice, 9*(1), 2-11.
- Bulgren, J. A., Schumaker, J. B., Deshler, D. D., Lenz, B. K., & Marquis, J. (2002). The use and effectiveness of a comparison routine in diverse secondary content classrooms. *Journal of Educational Psychology, 94*(2), 356-371.

# 9th Grade Physical Science (n=78)



# Concept Mastery Results



Test scores of students with disabilities on unit tests

# Tier II

Tier 2 interventions are provided only to students who demonstrate problems based on screening measures or weak progress from regular classroom instruction. In addition to general classroom instruction, Tier 2 students receive supplemental, small group instruction aimed at building foundational skills.

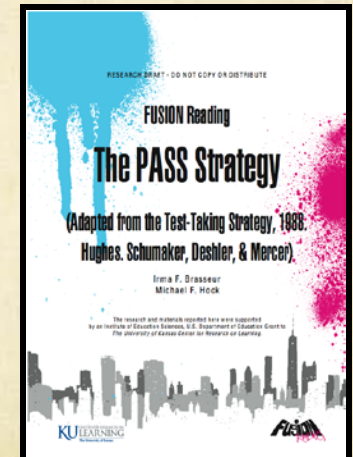
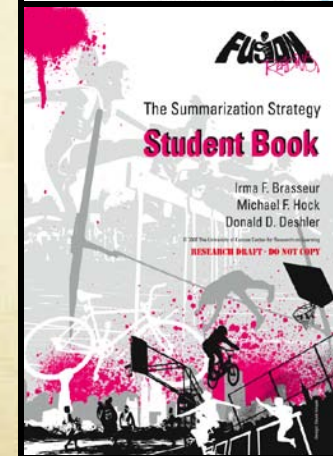
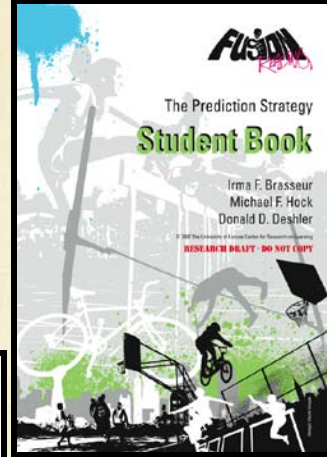
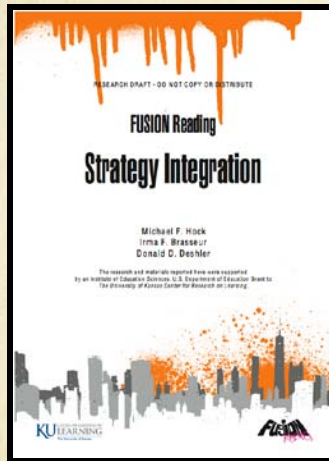
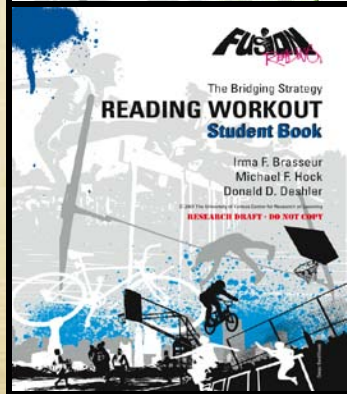
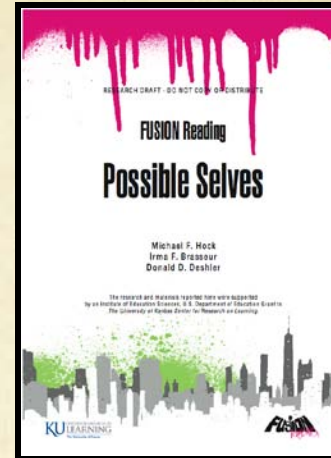
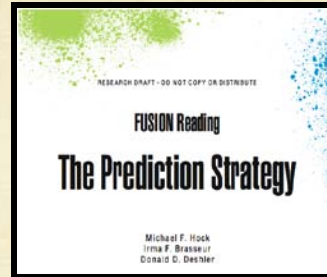
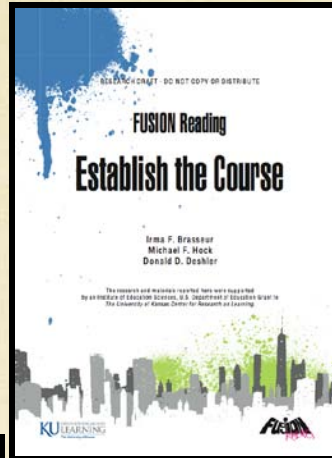
# Tier II Evidence-Based Practices

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- Provide direct and explicit comprehension strategy instruction
- Provide opportunities for extended discussion of text meaning and interpretation
- Increase student motivation and engagement in literacy learning

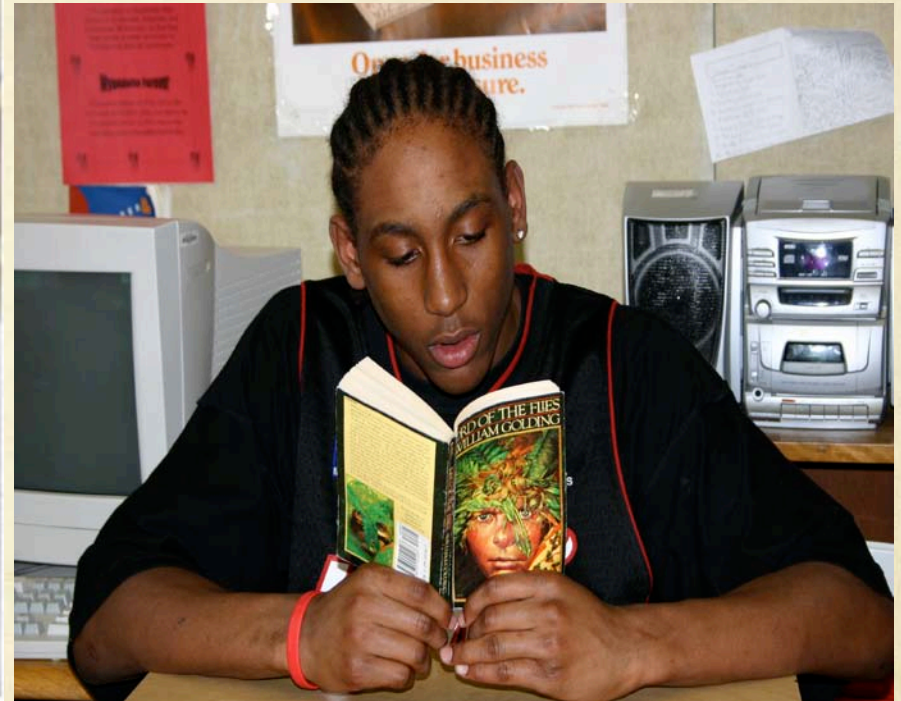
# Tier II Example: Fusion Reading

- *FUSION READING* is the product of an Institute for Education Science (IES) Goal 2 development study. A primary goal of that grant was to develop a two-year curriculum for struggling adolescent readers. The result of that effort was the creation and initial evaluation of a multi-component intensive reading program for 9<sup>th</sup> and 10<sup>th</sup> graders. The intervention is comprised of three major elements: motivation, reading instruction, and classroom management.

# The Curriculum & Program Manuals



# Evidence Supporting Fusion Reading



# Random Assignment Experiment

<b>Iteration Study 7</b>				
<b>Grade Composite (Standard Score)</b>				
	<b>Experimental Mean</b>	<b>Control Mean</b>	<b>F value*</b>	<b>Probability</b>
<i>Pre</i>	<b>86.05</b>	<b>87.7</b>	F(2,88)=3.53	<b>p=.03</b>
<i>Post</i>	<b>91.1*</b>	<b>86.9</b>	<b>ES= .66 SS, .70 RS</b>	
<b>Grade Total (Standard Score)</b>				
	<b>Experimental Mean</b>	<b>Control Mean</b>	<b>F value*</b>	<b>Probability</b>
<i>Pre</i>	<b>87.34</b>	<b>88.18</b>	F(1,97)=3.19	<b>p=.0774</b>
<i>Post</i>	<b>93.24*</b>	<b>90.74</b>	<b>ES= .45 SS, .55 RS</b>	

Hock, Brasseur-Hock, Metha, Deshler (in prep). The effects of a multi-component reading intervention for adolescent struggling readers in urban high schools.

# Tier III

Tier 3 interventions are provided to students who do not progress after a reasonable amount of time with the Tier 2 intervention and require more intensive assistance. Tier 3 usually entails one-on-one tutoring with a mix of instructional interventions.

# Tier III Evidence-Based Practices

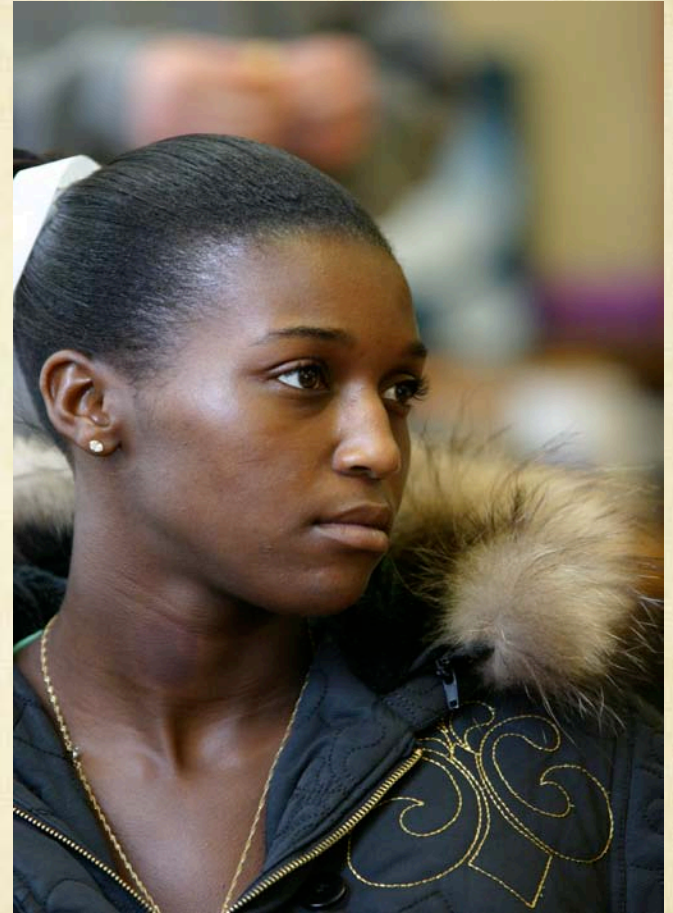
- Make available intensive individualized interventions for struggling readers that can be provided by qualified specialists

# What We've Learned So Far

- Fusion Reading is a *feasible* intervention- most secondary teachers embrace the program and implement with fidelity
- Intensity matters (90 minutes daily got best results)
- Many ASRs have disengaged from text. Students will re-engaged with relevant and motivating text and when then find success in reading
- In a RA study, Fusion Reading was found to be a promising intervention with moderate to high effects on a standardized reading measure
- Professional development AND coaching seem to matter
- Improving outcomes for ASRs is no simple matter!

# Our Purpose.....

To learn about research-based secondary level interventions applicable to a Response to Intervention framework



Questions and Yeah, Buts!