

## Preventing Reading Difficulties Among Spanish-Speaking Children

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- Some Spanish speaking children will struggle to become readers, regardless of the language of instruction (English or Spanish)
- Much of what we know about teaching reading to native English speaking struggling readers applies to teaching native Spanish speaking struggling readers
- Thus, interventions designed to teach reading should be effective in either Spanish or English
- Oracy development and ESL strategies are critical additions to reading interventions for Spanish speaking students



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## Research Sample (Cohort 1)

- **Schools**
  - 3 Houston (1 Transitional, 2 English Immersion)
  - 4 Austin (4 Transitional)
  - 4 Brownsville (3 Transitional, 1 English)
- **Intervention Tutors - All bilingual/biliterate**
  - 2 Houston (1 Spanish/English, 1 English only)
  - 3 Brownsville (2 English only, 1 Spanish only)
  - 2 Austin (2 Spanish only)
- **Students**
  - Houston (6 Spanish, 26 English)
  - Brownsville (28 Transitional, 24 English)
  - Austin (33 Transitional, 0 English)



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## Research Design

### SPANISH PARTICIPANTS

- Cohort 1
  - 33 Treatment
  - 34 Comparison
- Cohort 2
  - 42 Treatment
  - 47 Comparison

### ENGLISH PARTICIPANTS

- Cohort 1
  - 25 Treatment
  - 25 Comparison
- Cohort 2
  - 45 Treatment
  - 49 Comparison



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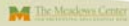
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## The Interventions

- Primary focus on reading
- Parallel in Spanish and English
- English version previously validated as effective
- 50 minutes per day October-May
- 1:4 Teacher to Student ratio
- Provided in addition to normal language arts instruction



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## Lesson Cycle

- Story Retell (@ 10 minutes)
- Reading Lesson (@ 35 minutes)
- Embedded Language Support (@ 5 minutes)



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## Story Retell

- Preview the book and assess prior knowledge
- Make predictions or build background knowledge
- Introduce 2-4 vocabulary words
- Read the book aloud
- Students retell what was read
- Teacher writes student responses and summarizes

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## Proactive Reading/ Lectura Proactiva

- Explicit instruction in synthetic phonics, with emphasis on fluency
- Integrates decoding, fluency, and comprehension strategies
- Decodable text
- Carefully constructed scope and sequence designed to prevent possible confusions
- Every activity taught to 100% mastery every day

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## Daily Lessons

- Includes multiple strands
- Amount of new information is kept to a minimum so that children can assimilate it
- Review and generalization included in every lesson

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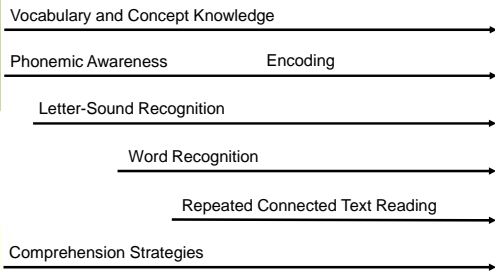
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## Instructional Design: Integrated Strands



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## Intervention Comparison

### English

- Focus on phonemic awareness—segmenting and blending—until children are sensitive to phonemes within blends
- Focus on reading monosyllabic cvc words before moving into multisyllabic and other syllable types
- Sounding out is the primary decoding strategy
- Children are taught to be “flexible” decoders since English has many irregular words
- Much time assisting children to process connected text fluently through the reading of decodable stories
- Basic comprehension strategies are taught and practiced daily
- ESL inserts ensure that children have the necessary concepts and vocabulary to participate in each lesson

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## Intervention Comparison

### Spanish

- Significantly less phonemic awareness instruction
- The cv syllable type is given major emphasis
- Reading multisyllabic words begins almost immediately
- The phoneme is focused on syllables within words, but children don't sound out an entire multisyllabic word phoneme by phoneme
- Processing words syllable by syllable is the primary decoding strategy
- Children read much more complex word structures much sooner than they do in English
- Spanish text becomes richer much more quickly, allowing for the inclusion of more advanced comprehension strategies

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## Results for Spanish Intervention Cohort 1

Statistically significant differences in favor of Spanish Intervention treatment group for outcomes in Spanish.  
Time × Treatment Interaction effects for:

- Letter sounds
- Blending phonemes – words and non-words
- Word attack
- Oral reading fluency – Spanish
- Passage comprehension
- Overall language development



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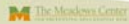
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## Results for Spanish Intervention Cohort 2

Statistically significant differences in favor of English Intervention treatment group for outcomes in English.  
Time × Treatment Interaction effects for:

- PA composite
- Letter sound identification
- Word attack
- DIBELS, BOY



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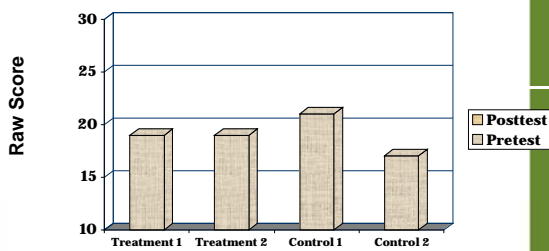
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## Spanish Letter Sound Identification: Pretest



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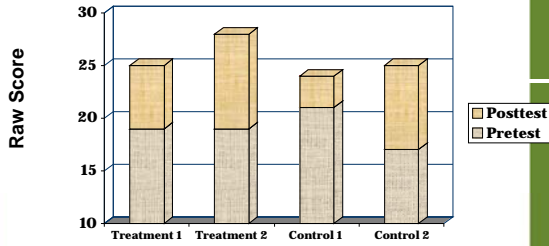
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### Spanish Letter Sound Identification: Posttest



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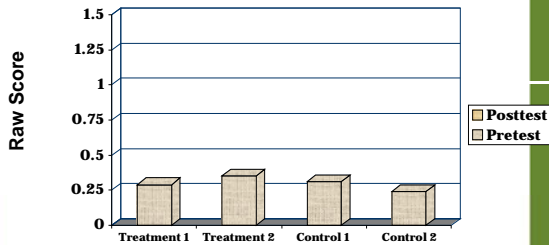
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### Spanish Rapid Letter Naming: Pretest



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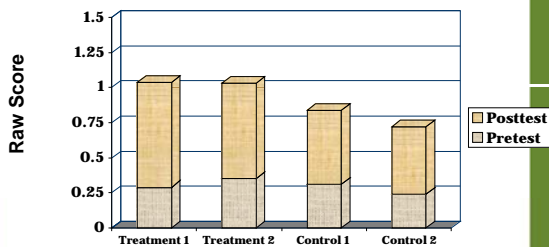
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### Spanish Rapid Letter Naming: Posttest



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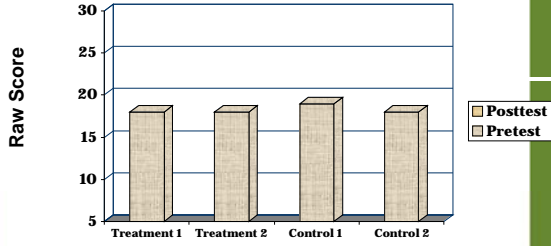
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### Spanish Letter Name Identification: Pretest




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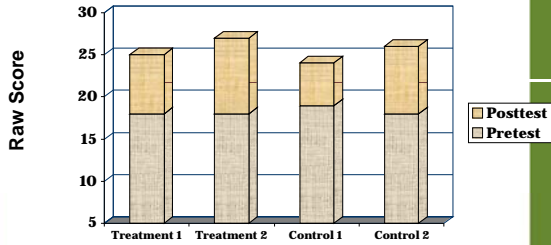
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### Spanish Letter Name Identification: Posttest




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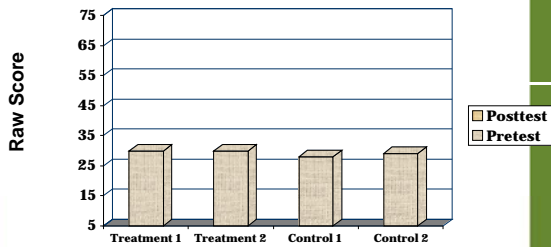
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### Spanish PA Composite: Pretest




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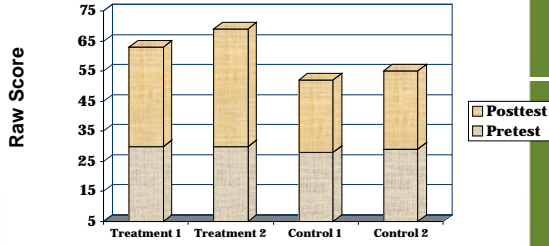
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Spanish PA Composite:  
Posttest



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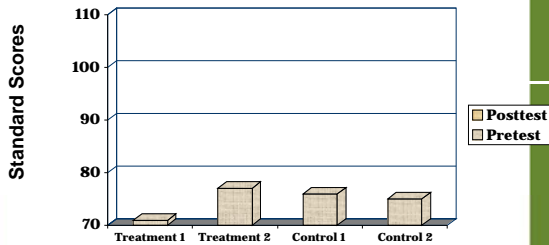
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Spanish Passage Comprehension:  
Pretest



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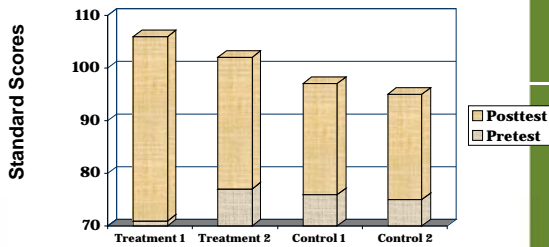
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Spanish Passage Comprehension:  
Posttest



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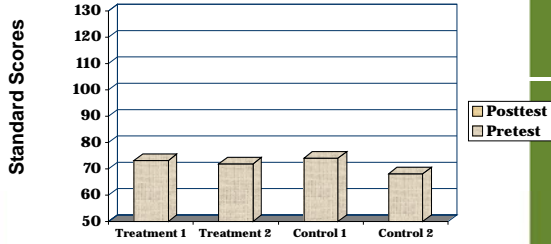
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Spanish Word Attack:  
Pretest




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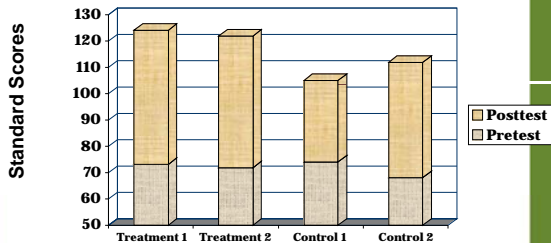
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Spanish Word Attack:  
Posttest




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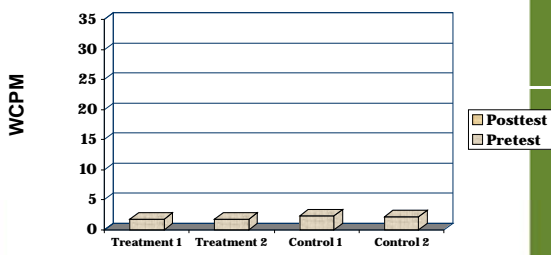
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Spanish DIBELS—Oral Reading Fluency  
WCPM:  
Pretest (BOY)




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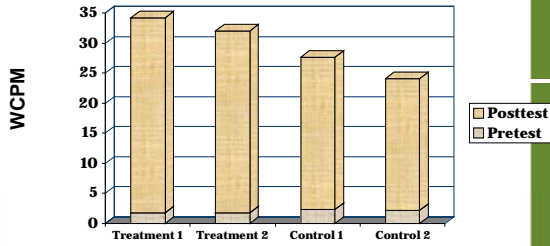
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### Spanish DIBELS—Oral Reading Fluency: Posttest (BOY)




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### Standard Score Points Gained Per Hour of Intervention Cohort 1

Nine studies conducted with English Intervention (Vaughn & Linan-Thompson, 2003)

	Word Attack	Passage Comprehension
English Intervention (9 Studies)	.23 - .47	.05 - .35
Spanish Intervention (Cohort 1)	.75	.47

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### Effect Sizes for Spanish Intervention Cohort 1 and 2 respectively

Spanish Measure	Effect Size	
Letter Name Identification	+.32	.26
Rapid Letter Naming	+.46	.67
Letter Sound Identification	+.72	.53
PA Composite	+.73	.81
Oral Language Composite	+.35	.23
Word Attack	+.85	.45
Passage Comprehension	+.55	.42
DIBELS	+.75	.28, .41

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### Results for English Intervention Cohort 1

Statistically significant differences in favor of English Intervention treatment group for outcomes in English. Time x Treatment Interaction effects for:

- Letter naming fluency
- Letter sound identification
- Phonological composite (sound matching, blending words, blending non-words, segmenting words, elision)
- Word attack
- Dictation
- Passage comprehension



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### Results for English Intervention Cohort 2

Statistically significant differences in favor of English Intervention treatment group for outcomes in English. Time x Treatment Interaction effects for:

- Letter sound identification
- Letter word identification
- Phonological composite
- Word attack
- DIBELS, BOY



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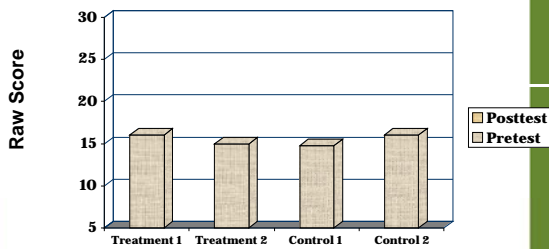
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### English Letter Sound Identification: Pretest



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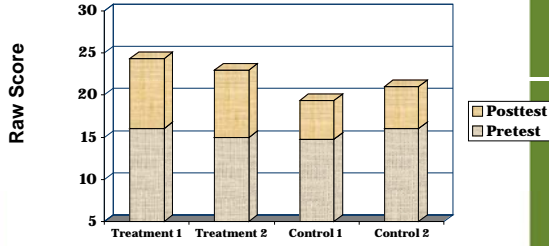
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### English Letter Sound Identification: Posttest



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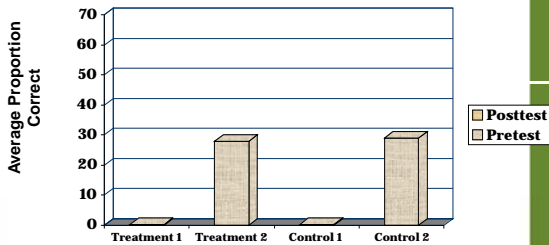
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### English Phonological Composite: Pretest



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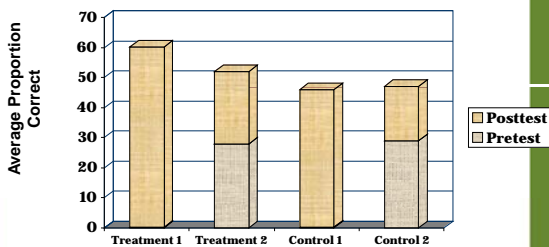
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### English Phonological Composite: Posttest



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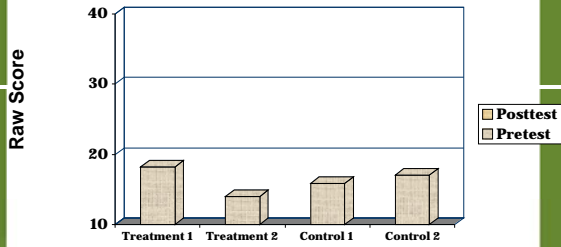
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### English Letter Name Identification: Pretest




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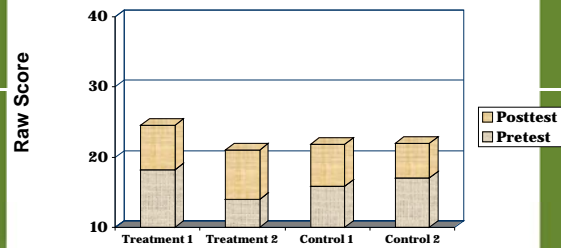
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### English Letter Name Identification: Posttest




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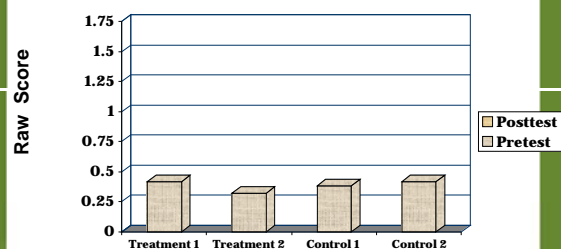
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### English Rapid Letter Naming: Pretest




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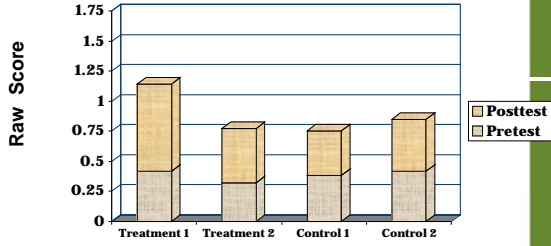
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### English Rapid Letter Naming: Posttest



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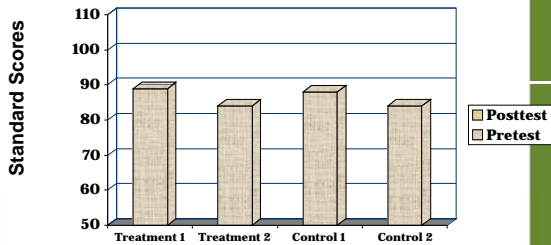
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### English Word Attack: Pretest



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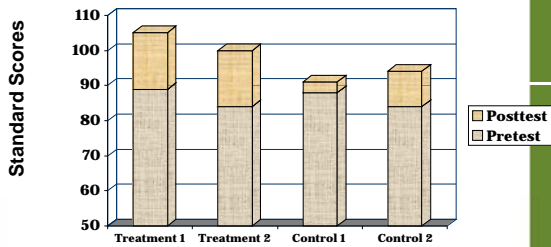
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### English Word Attack: Posttest



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Developmental Disabilities

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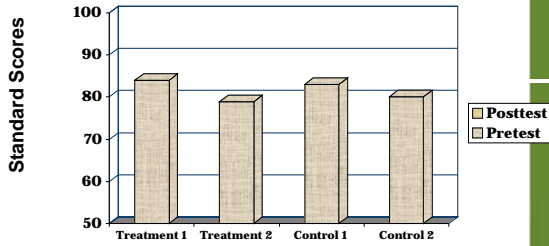
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### English Passage Comprehension: Pretest




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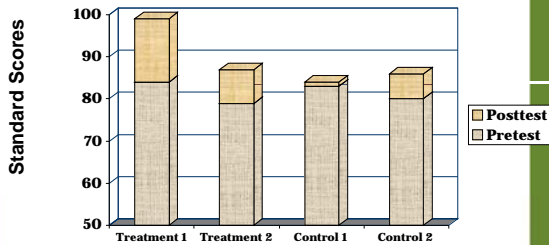
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### English Passage Comprehension: Posttest




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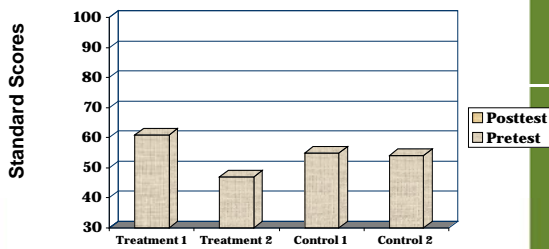
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### English Oral Language Composite: Pretest




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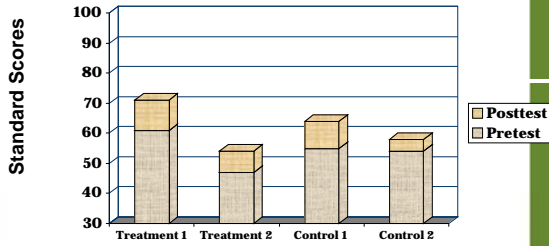
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English Oral Language Composite:  
Posttest




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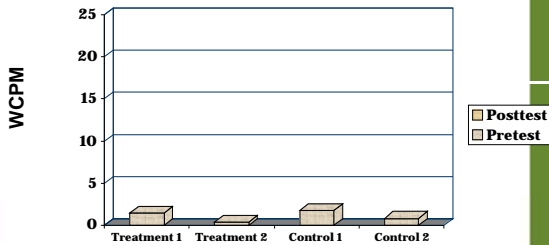
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English DIBELS—Oral Reading Fluency  
WCPM:  
Pretest (BOY)




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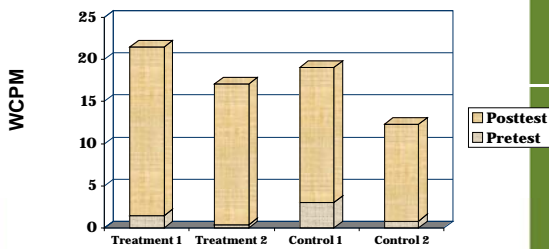
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English DIBELS—Oral Reading Fluency:  
Posttest (BOY)




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Effect Sizes for English Intervention  
Cohort 1 and 2

English Measure	Effect Size	
Letter Name Identification	+.59	-.23
Rapid Letter Naming	+.88	-.16
Letter Sound Identification	+1.01	.36
PA Composite	+1.24	.38
Verbal Analogies	+.77	.11
Oral Language Composite	+.43	-.17
Word Attack	+1.09	.42
Passage Comprehension	+1.08	.06
DIBELS BOY	+.16	.27, .32




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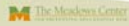
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Standard Score Points  
Gained Per Hour of Intervention  
Cohort 1

Nine Studies conducted with English Intervention  
(Vaughn & Linan-Thompson, 2003)

	Word Attack	Passage Comprehension
English Intervention (9 Studies)	.23 - .47	.05 - .35
English Intervention (This study)	.66	.34
Spanish Intervention	.75	.47




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2<sup>nd</sup> Grade Follow-up Effect Sizes

	English	Spanish
Oral Lang Comp	.24	.04
Letter Wd ID	.43	.64
Word Attack	.45	.54
Word Rdg Eff	.41	.45




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## 2<sup>nd</sup> Grade Follow-up Effect Sizes

	<u>English</u>	<u>Spanish</u>
Passage Comp	.31	.49
ORF	.36	.39
Spelling	.43	.650

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## Synthesis of Intensive Interventions: 4<sup>th</sup> through 12<sup>th</sup>

- More than 75 sessions
- No studies for Grades 10-12
- 11 Experimental/Quasi-experimental studies for secondary, 19 for Elementary

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## What we learned about Instruction for beginning at-risk readers...

- Many of the critical content components that are essential for monolingual English speakers are effective for ELLs.
- Word Study and Phonics
- Listening Comprehension utilized strategies essential for Reading Comprehension
- Fluent Reading and Repeated Reading of text for speed, accuracy, and prosody
- Vocabulary and Concept Knowledge Development
- Effective Instructional Scaffolding

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## What we learned about instruction for at-risk readers (cont.)...

- Best Practices for ELLs
- All new information is modeled (Model - Lead - Test)
- Repetitive language and instructional routines
- Time to dialog with teachers and each other
- Daily practice opportunities

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## Teacher Reflections

*This was the last week at Zavala Elementary... I believe all of my students have been successful in this intervention, without it, they would have struggled a great deal. Many times concepts introduced were a review of what they [intervention students] had already seen in their regular language arts. However, the intervention made sure they were not only familiar with the material, but accomplished mastery. Without the intervention, these kids would have stayed behind.*

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## Teacher Reflections

*One teacher wrote, "If it wasn't for this course [curriculum] two little girls would not have learned how to read. So I comfort myself with that even if I didn't finish the course [last book in the curriculum]."*

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**ORACY DEVELOPMENT FOR  
ENGLISH-LANGUAGE LEARNERS:  
READ ALOUD/STORY RETELL  
PROCEDURE**

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- Instructional Goals of the Read Aloud/Story Retell Procedure**
- Build and extend vocabulary and content knowledge
  - Build and expand listening comprehension and oral language skills within the context of reading both narrative and informational trade books.

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- Elements of the Procedure**
- Introduce the story and three or four new words.
  - Read a passage from a narrative or informational text out loud, followed by literal and inferential questions.
  - Reread the passage, focusing on the three or four vocabulary words.
  - Extend comprehension by deeply processing vocabulary knowledge.
  - Summarize what was read or learned.
- (Hickman, Pollard-Durodola, Vaughn, 2004)

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## Story Read Aloud/Story Retell Procedure for Day 1

### Step 1: Introduce the story (3 mins.)

- Title/Author
- Ask questions about prior knowledge.
- Listen for three new words.
  - A. Show the word card.
  - B. Read the definition.
  - C. Repeat steps A and B.



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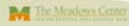
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## Day 1, Continued

### Step 2: Read and Comprehend the Story (3-4 mins.)

- Read an entire section without stopping.
- Students retell the story.
  - A. One student retells the story.
  - B. Ask another student to build upon the first student's response.
  - C. Ask another student an inferential question.



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## Day 1, Continued

### Step 3: Reread the Story (3-4 mins.)

- Reread the story. Students listen for vocabulary words/give a thumbs-up signal.
- Oral Scaffolding with the purpose of connecting new knowledge (new words) with life experiences.



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## Day 1, Continued

### Step 4: Debrief/Summarize

“Today we finished reading Julius, the Baby of the World. You did a great job listening to the story and remembering the words insulting, admired, and disgusting. Listen for these words when you hear stories or when adults are talking.”



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## Day 2+ of the Read Aloud/Story Retell Procedure

- Introduction (“What are some things that have already happened in the story?” - Picture Walk)
- Read and Comprehend (Begin reading the next section of the book.)
- Reread the Story
- Debrief



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## Last Day of Read Aloud/Story Retell Procedure

- Review all words and definitions.
- Read and Comprehend
- Retell the entire story with the students. Picture Walk
- Ask specific literal and inferential questions. Use vocabulary in responses.
- Debrief



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### Research-based Practices Incorporated Within the Read Aloud/Story Retell Procedure

- Activate Relevant Background Knowledge
- Activate and utilize students' background knowledge within the story's content as a support for comprehension and vocabulary retention (Schifini, 1994; Ulanoff & Pucci, 1999).



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### Integrate New Knowledge with Prior Knowledge

- Integrate the teaching of word meanings within the content and context of the story, rather than relying on a separate list of vocabulary words. Show connections between words (e.g., word families, etc.) (Au, 1993; Nagy, 1988).



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### Select Rich, Descriptive Vocabulary

- Focus on basic vocabulary that is difficult to visualize as well as vocabulary that is rich and descriptive as a means of increasing student challenge and maintaining engagement (Anderson & Roit, 1998; Gersten & Baker, 2000).



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## Scaffold Discussions

- Scaffold discussions and encourage higher level, elaborated responses with regard to vocabulary, syntax, and usage (Anderson & Roit, 1998; Au, 1993).

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## Use Culturally Relevant Texts

- Use texts that are culturally relevant, incorporating experiences from students' lives as well as prior knowledge to encourage of retention of new knowledge and new words (Barrera, 1992; De Leon & Medina, 1998; Trueba, 1988).

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## Selection of Vocabulary Words

- Select 3-4 words of high utility that can be used in varied contexts.
- Tier 2 words go beyond basic, familiar concepts (Tier 1) but are not so vague and technical (Tier 3) that they would be confined to specified content knowledge.
- Define words in terms that readily understood by students, helping students to make connections between world knowledge and new knowledge.

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### Questions that guide vocabulary selection:

- Will learning the words make students better able to describe their own life experiences because the words or knowledge gained can be linked to known words or concepts?
- Will learning the words result in a deeper understanding of a specific context within a story that can also be linked to student knowledge or life experiences?



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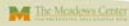
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### Selection of Text and Read Aloud Passages

- Select text that is one to two grade levels above the student's grade.
- Select stories and informational text based on student interest.
- Arrange texts into thematic groups (3-4) that will allow students to gain more depth in content knowledge.
- Divide book into passages of 200-250 words so that it can be completely read within three to five days.



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### Professional Development Model

- Initial Training
- On-going Coaching/Feedback
- Formal Curriculum Fidelity (Beginning, Middle, End-of-the-Year)



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## A New Light on Literacy

- [http://www.texasreading.org/utcrcla/materials/newlightonliteracy/new\\_light\\_on\\_literacy.pdf](http://www.texasreading.org/utcrcla/materials/newlightonliteracy/new_light_on_literacy.pdf)
- [http://www.texasreading.org/utcrcla/materials/newlightonliteracy/4-story\\_retell.mp4](http://www.texasreading.org/utcrcla/materials/newlightonliteracy/4-story_retell.mp4)



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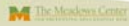
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## For more information

- <http://www.texasreading.org/utcrcla/materials/newlightonliteracy>  
Vaughn Gross Center for Reading and Language Arts The University of Texas at Austin
- Hickman, P., Pollard-Durodola, S. D., & Vaughn, S. (2004). Storybook reading: Improving vocabulary and comprehension for English-language learners. *Reading Teacher*, 57(8), 720-730.
- Pollard-Durodola, S.D., Mathes, P.G., Vaughn, S., Cardenas-Hagan, E., & Linan-Thompson, S. (2006). The role of oracy in developing comprehension in Spanish-speaking English language learners. *Topics in Language Disorders*, 26(4), 362-281.
- Vaughn, S., Linan-Thompson, S., Mathes, P. G., Cirino, P. T., Carlson, C. D., Pollard-Durodola, S. D., et al. (2006). Effectiveness of Spanish intervention for first-grade English language learners at risk for reading difficulties. *Journal of Learning Disabilities* 39(1), 56-73.



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## More references...

- Vaughn, S., Linan-Thompson, S., Pollard-Durodola, S. D., Mathes, P. G., Cardenas-Hagan, E. (2006). Effective interventions for English language learners (Spanish-English) at risk for reading difficulties. In D. K. Dickinson & S. B. Neuman (Eds.), *Handbook of early literacy research* (Vol. 2, pp. 185-197). New York: Guilford.
- Vaughn, S., Mathes, P. G., Linan-Thompson, S., Cirino, P. T., Carlson, C. D., Pollard-Durodola, S. D., et al. (in press). First-grade English language learners at-risk for reading problems: Effectiveness of an English intervention. *Elementary School Journal*.
- Vaughn, S., Mathes, P. G., Linan-Thompson, S., & Francis, D. J. (2005). Teaching English language learners at risk for reading disabilities to read: Putting research into practice. *Learning Disabilities Research & Practice*, 20(1), 58-67.



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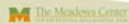
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## More references

Vaughn, S., Cirino, P. T., Linan-Thompson, S., Mathes, P. G., Carlson, C. D., Cardenas-Hagan, E., et al. (In press). Effectiveness of a Spanish intervention and an English intervention for English language learners at risk for reading problems. *American Educational Research*



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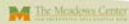
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