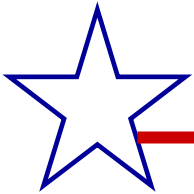
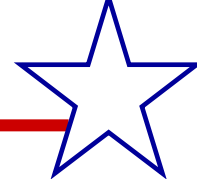


Reducing Reading Failure to Less than 1%



Plain Talk About Reading
April 1, 2008
Patricia Mathes, Ph.D.
pmathes@smu.edu

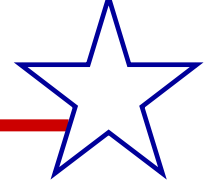




Today's Presentation

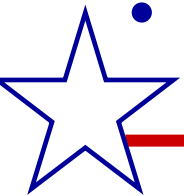
- Preventing Reading Difficulties
 - Tiered Models
 - Importance of SBRR intervention
- Scaling Effective Intervention
 - A Look at One Powerful Intervention
 - Facilitators and Barriers in the schools

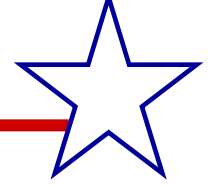




Proven Facts

- The numbers of children who struggle is related to the quality and intensity of instruction.
- The vast majority of children require only high quality core to thrive.
- A small number of children require high quality instruction in smaller groups in order to respond well. (Tier 2)
- A very small number of children will not respond adequately, even with the best intervention. (Tier 3)
- All children respond if instruction is well designed and of adequate intensity and duration.





Prevention: Three Tier Reading Model

If progress is inadequate, move to next level.



Tier 1: Quality Core

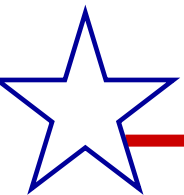
Enhanced general education classroom instruction.

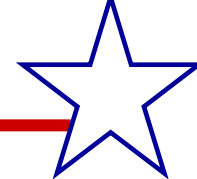
Tier 2: Secondary Intervention

Child receives more intense intervention in general education, presumably in small groups.

Tier 3: Tertiary

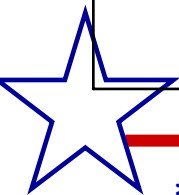
Intervention increases in intensity and duration. Support typically needed across years.





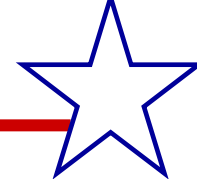
Tier 1 -- Alone

Study	Hours of Instruction	Intervention Type	Reading %tile for inclusion as At--Risk	% of Students below the 30th%tile at end of study*
Foorman et al, 1998	whole year	Whole Class	18th	5%
Mathes et al., 2005	whole year	Whole Class	18th	3%
Mathes et al., 2001	40	Peer Tutoring	25th	7%
Mathes et al., 2003	40	Peer Tutoring	25th	5%
Allor et al., 2001	40-55	Peer Tutoring	25th	6%



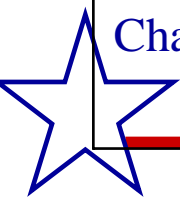
*extrapolated to entire population





Adding on Tier 2

Study	Hours of Instruction	Intervention Type	Reading %tile for inclusion as at-risk	% of Students below the 30th%tile at end of study*
Torgesen et al., 2000	Whole Year	small groups of 3-5	18th	1.4%
Torgesen et al., 2003	Whole Year	small groups of 3-5	18th	0.8%
Mathes et al., 2005a	Whole Year	small groups of 3	18th	0.02%
Mathes et al., 2005b	Whole Year	small groups of 3-5	18th	1.7%
Chard & Harn., 2007	Whole Year	small groups of 3-5	15th	0.93%



*extrapolated to entire population

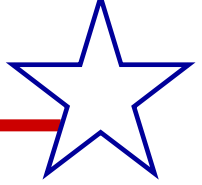
Mathes, P. G., & Denton, C.A. (2002).The prevention and identification of reading disability. *Seminars in Pediatric Neurology*, 9, 185-191.



Science Matters!

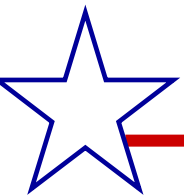
	SBRR vs. nonSBRR intervention	nonSBRR Intervention vs. core only
CTOPP		
Blending Words	.44	-.19
Blending Non Words	.47	-.10
TOWRE		
Word	.51	-.14
Phonetic decoding	.42	-.13
WJIII		
Word ID	.88	-.12
Word Attack	.24	-.26
Passage Comp	.57	-.10
Spelling	.60	-.30

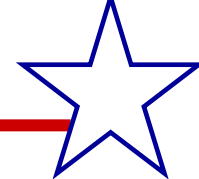
Data presented as Effect Sizes – anything over .20 is educationally relevant



Best to use a program with proven effectiveness!

- Includes content shown by research to be critical for struggling readers
- Has specific scope and sequence
- Provides extensive cumulative practice
- Integrates new content with previously learned content





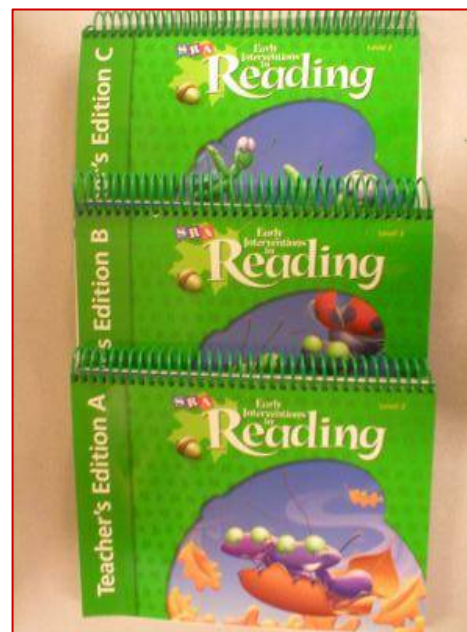
One Powerful Intervention

Early Interventions in Reading

(Mathes & Torgesen 2005)

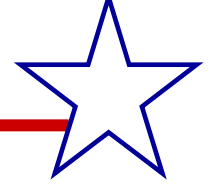


Level 1



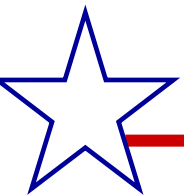
Level 2

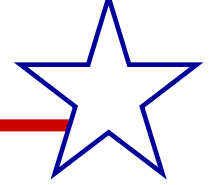




Intervention Basics

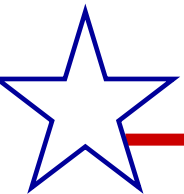
- Small Groups of 3-5 students.
- 40 minute sessions.
- 5 days a week.
- In addition to core reading instruction.

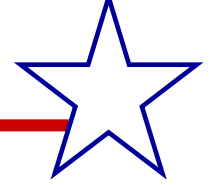




Benefits

- Provides students with carefully designed and integrated instruction of critical reading skills.
- Designed so even lowest performing readers achieve success.
- Proven with many kinds of at-risk readers (high poverty, LD/Dyslexic, ELLs, mild and moderate MR).
- Moves from pre-k to 4th grade reading in 240 lessons.

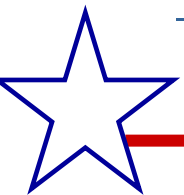


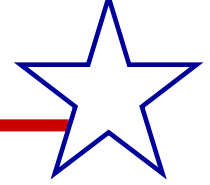


Scientifically Proven

Studies include:

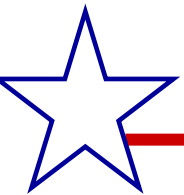
- Torgesen & Mathes, 1999, (NICHD), Tallahassee, FL
- Mathes, Denton, & Fletcher 2000-2001, (NSF), Houston Texas
- Vaughn, Mathes, Linen-Thompson, 2002-2003, (NICHD),
- Kamps, & Greenwood, 2003- present, (OSEP), Kansas City
- Simmons, Kamennui & Chard, 2003-2007, (IES), Eugene, OR
- Mathes & Denton, 2004-present, (IES), Dallas & Austin, TX
- Mathes & Allor , 2006-present, (IES), Ft Worth, Texas

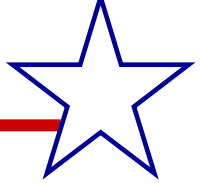




Proof of Success

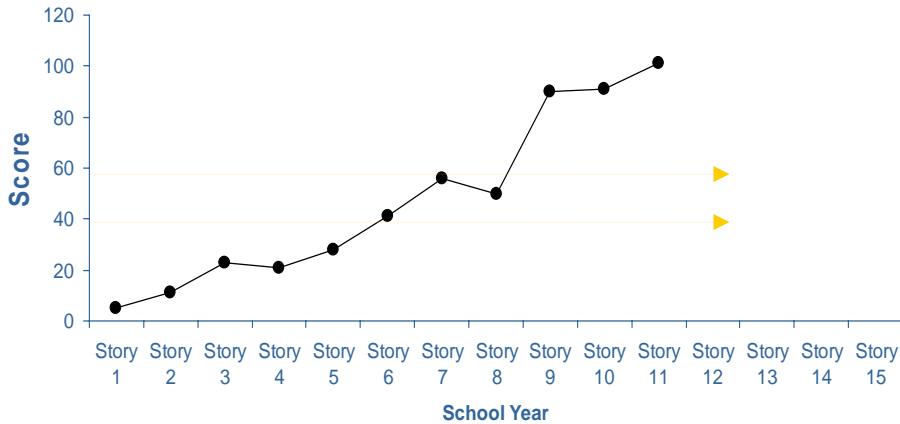
- Lowest Performing 1st graders scored on average around **110** on multiple measures of reading. This finding has been replicated multiple These same students started the year below the 20th percentile.
- 99% or more of students learned to read at normal levels in multiple studies by the end of first grade



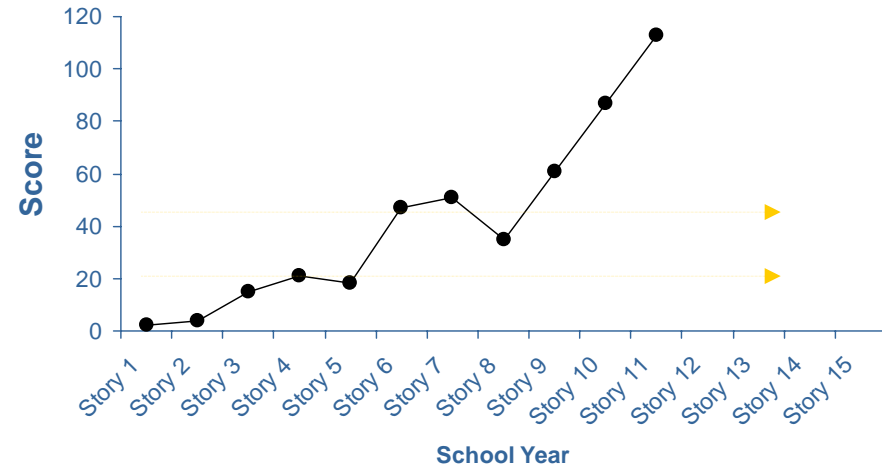


Children Who Received EIR

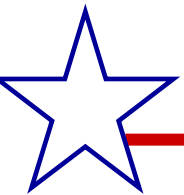
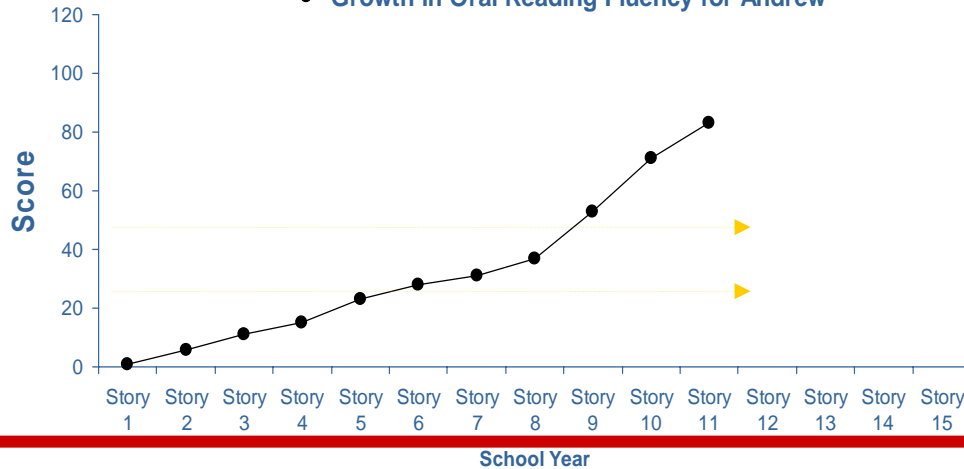
● Growth in Oral Reading Fluency for Luis

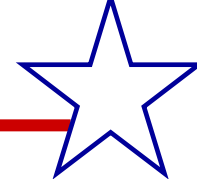


● Growth in Oral Reading Fluency for Jasmyn

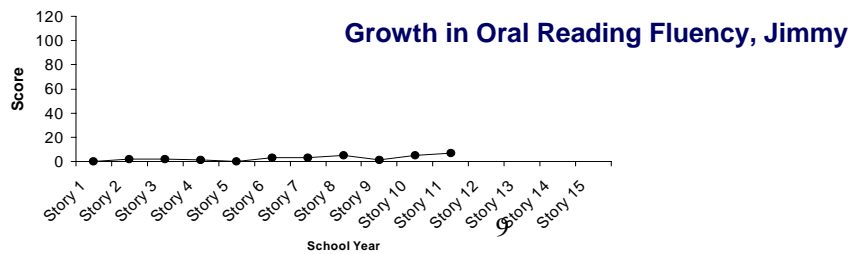
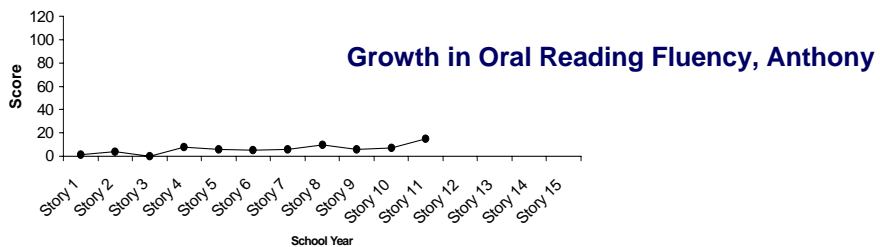
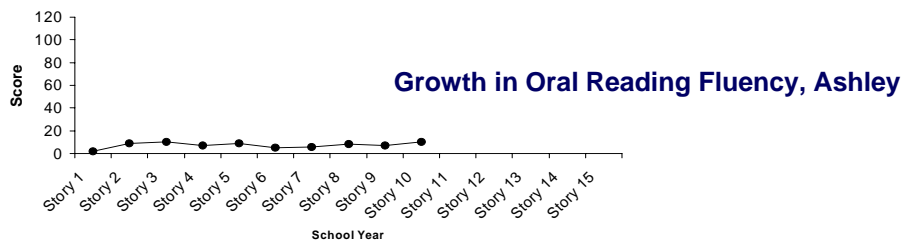


● Growth in Oral Reading Fluency for Andrew

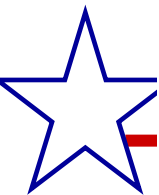


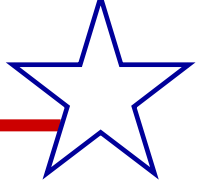


High Quality Core Alone

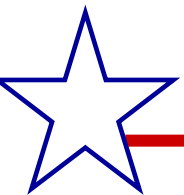
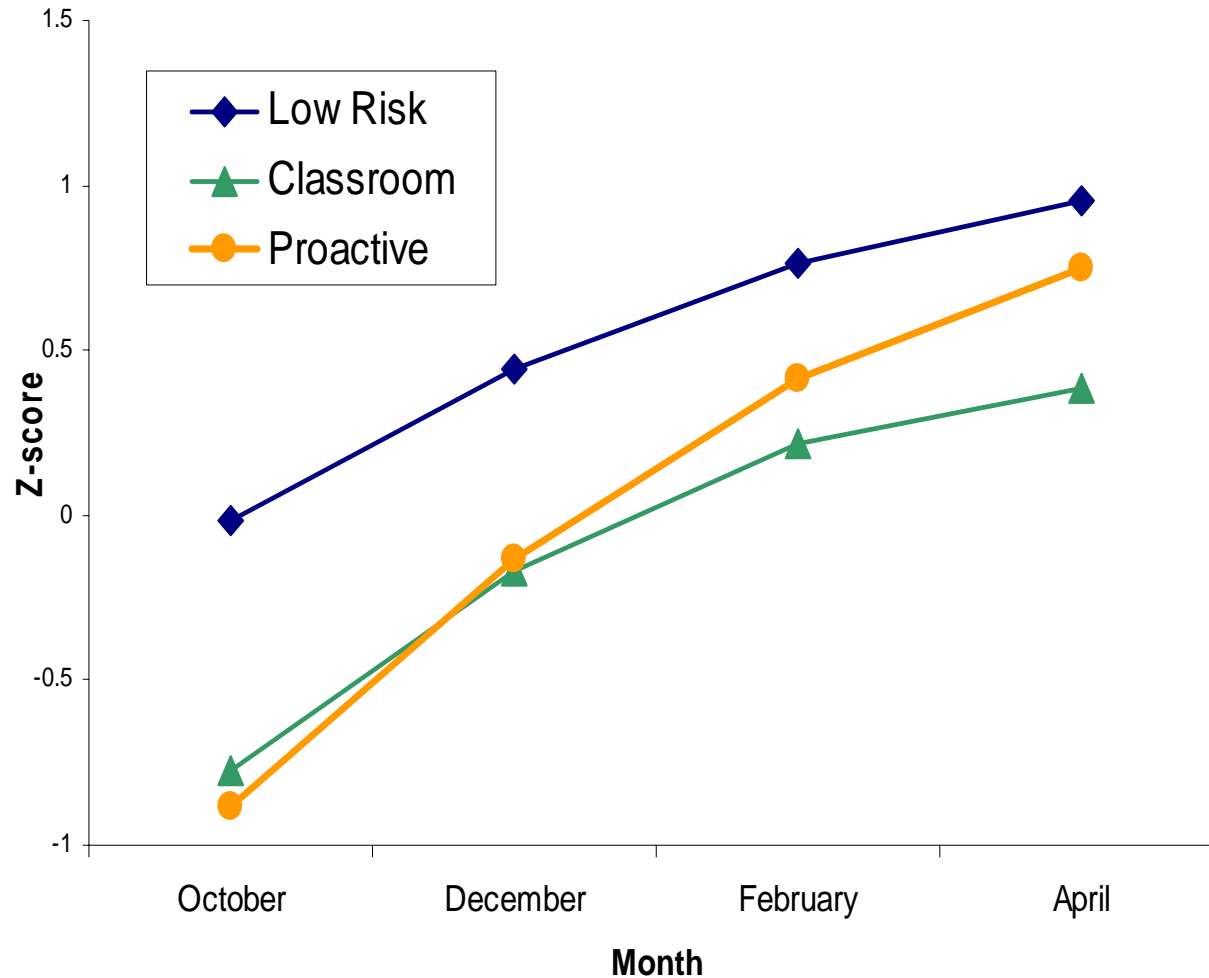


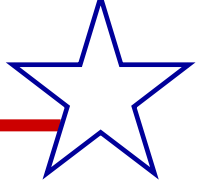
© SMU Institute for Reading Research



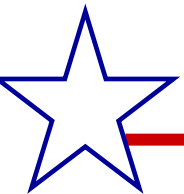
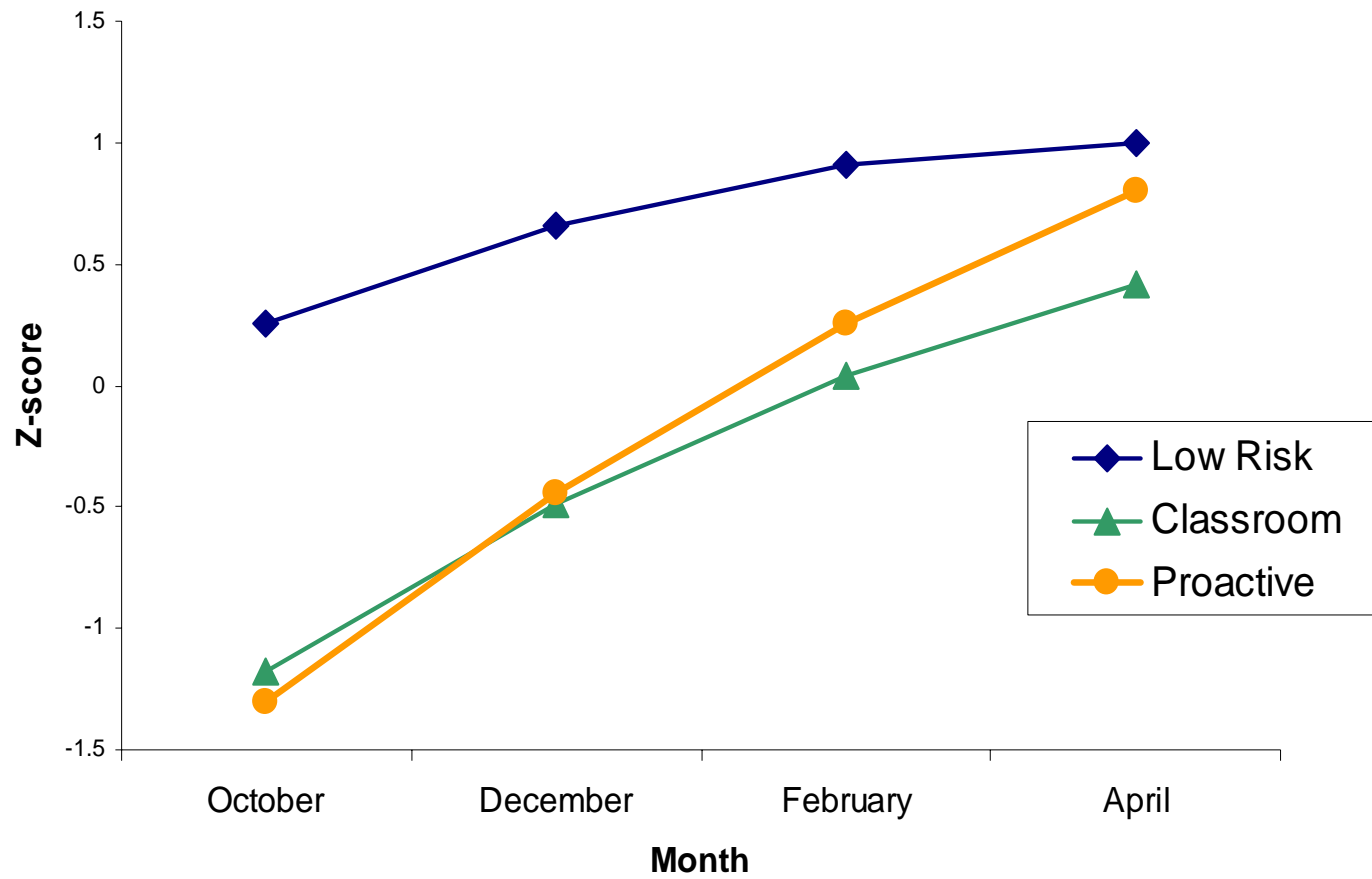


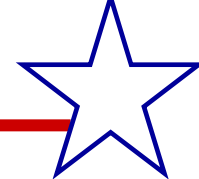
Growth in PA by Group



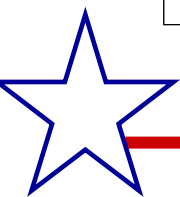
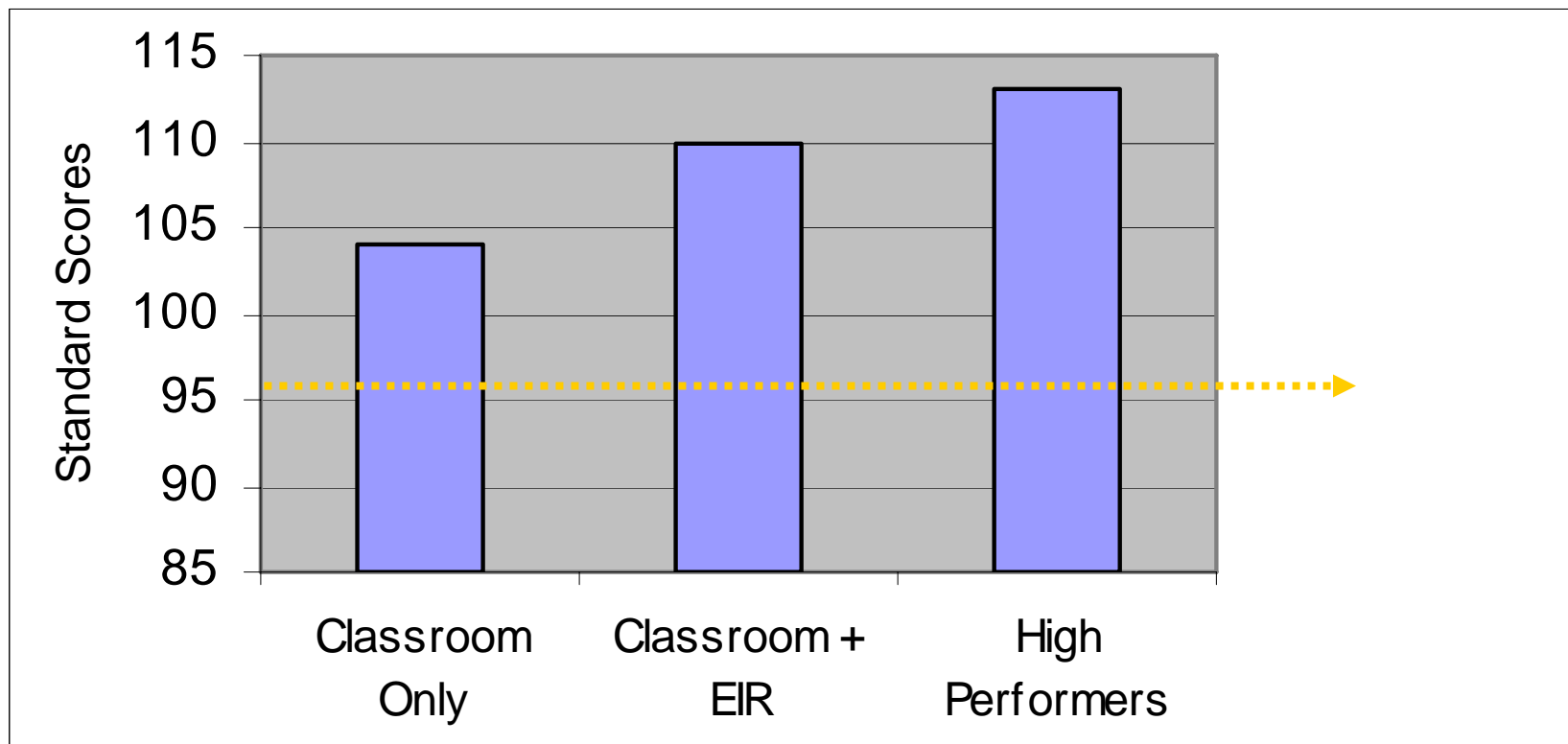


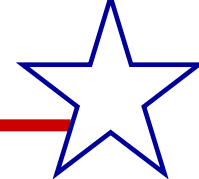
Growth in Word Reading



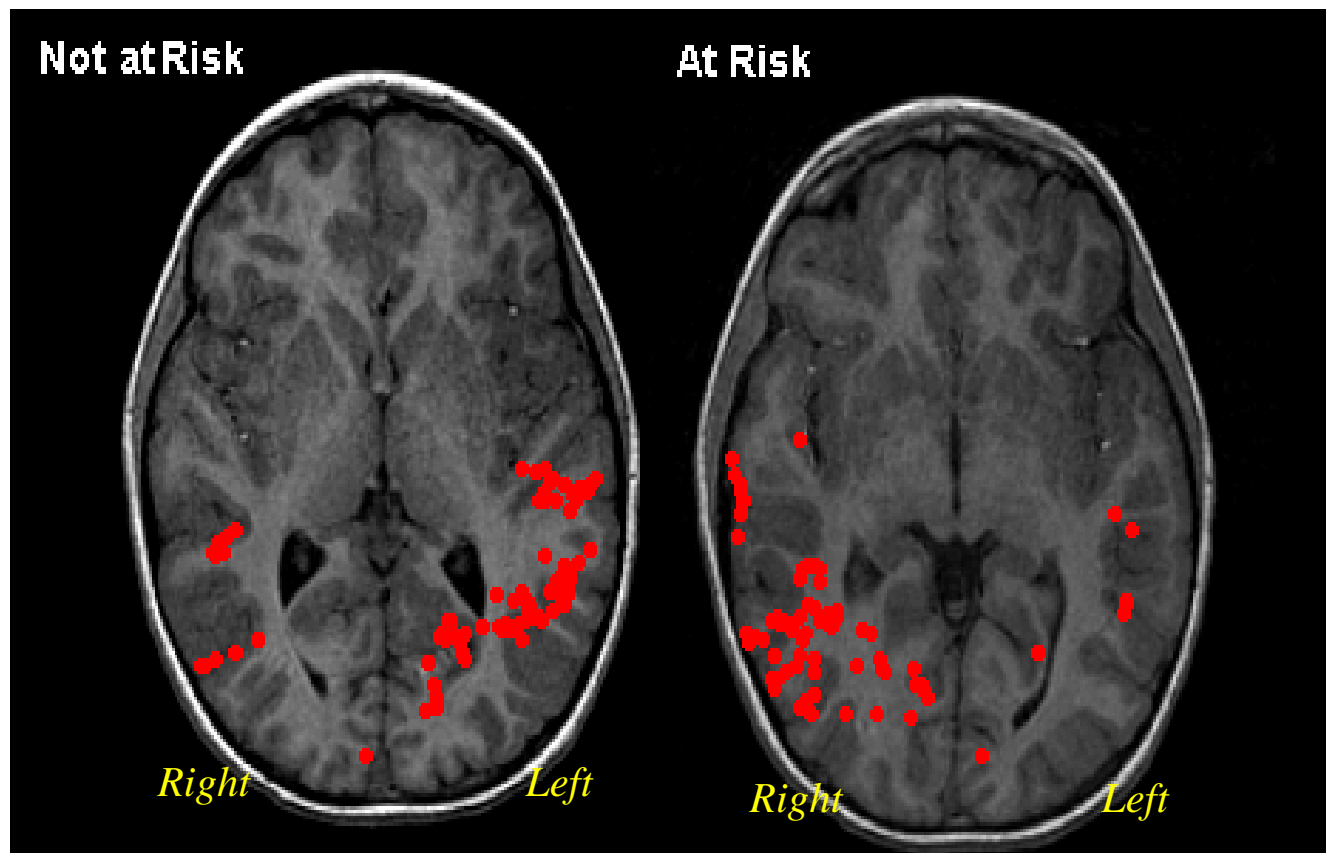


End of Year Standard Scores on WJ Basic Reading Skills by Group

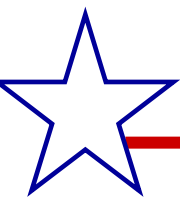




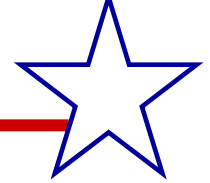
5 Year Olds Before Learning To Read



Simos, P.G., Fletcher J.M., Foorman, B.R., Francis, D.J., Castillo, E.M., Davis, R.N., Fitzgerald, M., Mathes, P.G., Denton C. & Papanicolaou, A.C. (2002). Brain activation profiles during the early stages of reading acquisition. *Child Neurology*.

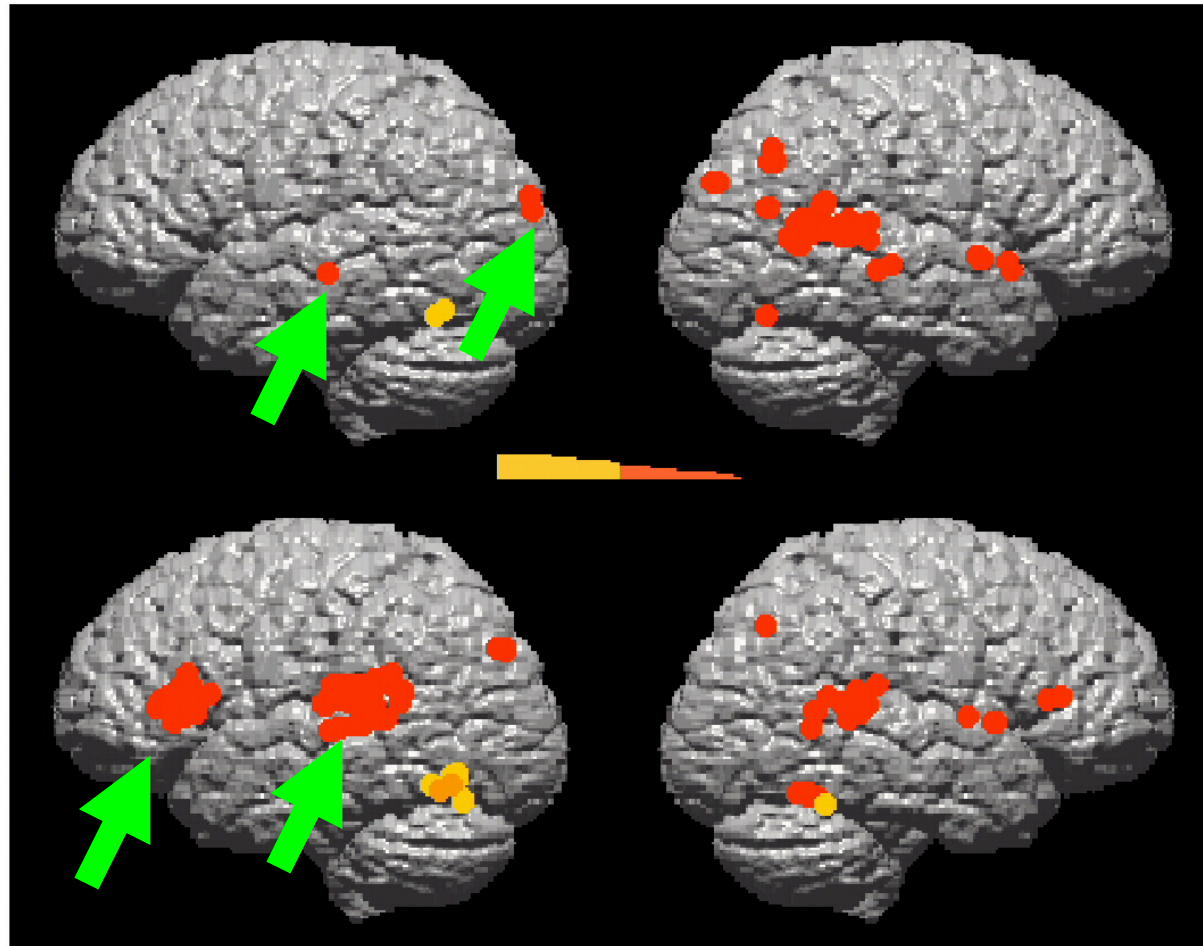


At Risk Reader



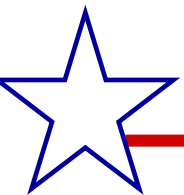
Left

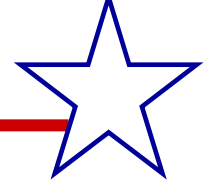
Right



Kindergarten

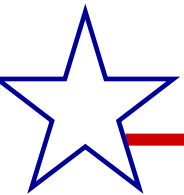
First Grade:
After EIR

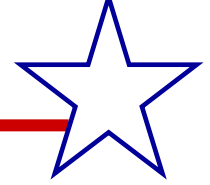




Characteristics of Daily Lessons

- Includes multiple strands.
- Amount of new information is kept to a minimum so that children can assimilate it.
- Most of each lesson is review and generalization.

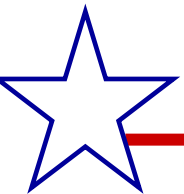


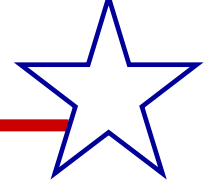


Fully Specified Lessons

Purpose

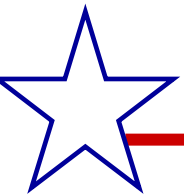
- Act as a guide for the teacher.
- Communicate only what students need to learn.
- Provide clear, repetitive language.
- All formats have been tested to make sure they work.

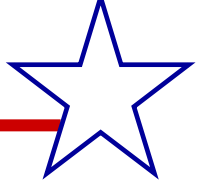




Routines

- Formats are repeated each day, so children are not confused.
- Different strands have specific formats.
- By structuring the lesson ahead of time, the guess work has been reduced.





Format Presentation

- What the Teacher does
- What the Teacher says.
- What the children say.

Activity 8

Sounding Out

(When you go through the list of words, distinguish between the letters m and n before sounding out each word.)

(Point to the n in an.) **What is this letter's sound? /nnn/**

Sound it out. *(Slide your finger under each letter as students sound out.)* /aaa/nnn/
Read it fast. an

Repeat the process with the following words: ant, nat, *sat, **ram.

Note: *When you come to the word sat, say: The next 2 words have no dots. Sound them out the way you always do.

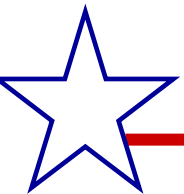
Point out the m when you come to ram. Follow this procedure: **What is this letter's sound? /mmm/ Sound it out. /rrr/aaa/mmm/ Read it fast. ram.

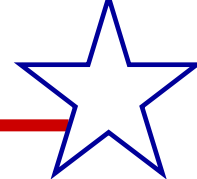
Individual Practice

(Provide individual practice.)

Good reading. What should I do now? Put a check mark on the lesson Mastery Sheet.

an
ant
nat
sat
ram





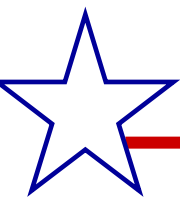
Phonemic Awareness Skills Sequence

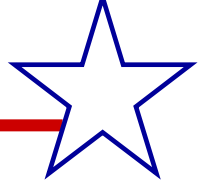
1. Initial Sound
2. Last Sound
3. Auditory Blending
4. Segmenting
5. Stretch and Blend
6. Vowel Discrimination

Easiest



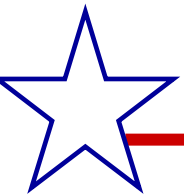
Harder

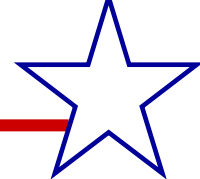




Phonemic Awareness and Spelling

- Phonemic awareness is used to facilitate spelling
- Stretch and Spell routine





Ensuring Mastery of Letter-Sounds

- Never introduces more than 3 letter-sounds per week. Usually just 2.
- Most common letter-sounds introduced first.
- Over time all variant spellings are taught. This continues in Level 2.

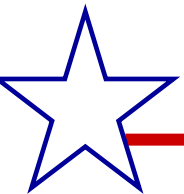


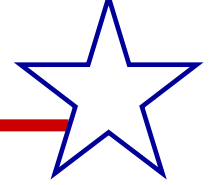


Letter-Sound Correspondence

Formats:

- Letter-Sound Introduction
 - Writing the Sound
- Letter-Sound Review
- Letter-Sound Dictation





Cumulative Practice

- Multiple spellings of the same sound may appear in the same activity.
- Some letters can be read more than one way.

Lesson 92

Activity 4
Letter-Sound Review
It is time to review the letter-sounds you have learned so far.

If the letter has more than one sound, ask, "What do you try first? What do you try next?"

For *ge* and *gi*, point to *g* and ask, "What sound does this letter make when followed by *e* (or *i*)?"

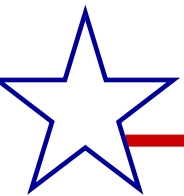
For *ce* and *ci*, point to *c* and ask, "What sound does this letter make when followed by *e* (or *i*)?"

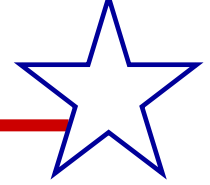
(Remember to move from left to right across the page before moving down to a new row.)
(Scaffold as necessary.)

Individual Practice
(Provide individual practice with 2-3 letter-sounds per student.)
(Praise, mark the Mastery Sheet, and move to the next activity.)

ce	s	ci	c	ce
i_e	ge	gi	a_e	
ci	ck	ar	a	
e	th	ch	ck	
ce	ci	c	i_e	

44 Lesson 92





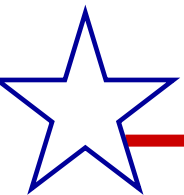
Sequence of Word Types

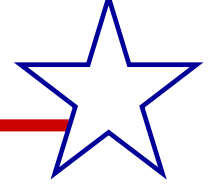
Level 1

- VC (am)
- CVC (Sam)
- CVCC (sand)
- Consonant-le (candle)
- Vowel teams (need)
- R-controlled (bird)
- CCVC blend (frog)
- CV (go)
- Multisyllabic (rabbit)
- VCe (ate)

Level 2

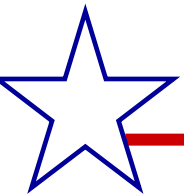
- Increasingly complex multisyllabic words comprised of all 6 syllable types.
- Incorporation of morphographs.
- Greater emphasis on flexible decoding.

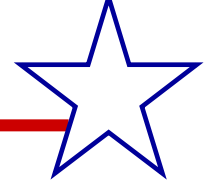




Developing Fluency

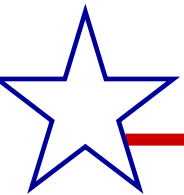
- Increases at 2 words per week
- End Goal Level 1: 60 WPM on end of first grade text
- End Goal Level 2: 120 on beginning 4th grade text.
- Fluency criterion provided for each story in TE.

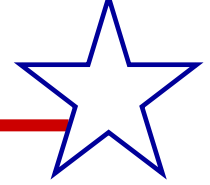




Partner Reading: Beat the Clock

- Teacher partners with one student.
- Other students read the story 1 page at a time.
- Students “race” the clock to read a story in a specified time.
- Time for teacher to track individual fluency.





Incorporates Proven Comprehension Strategies

Before

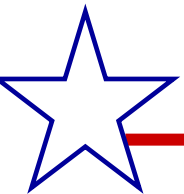
- Book Walk
- Predictions
- What I know
- Video Anchors (Level 2)

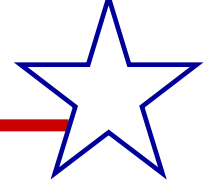
During

- Paragraph Shrinking
- Self Monitoring
- Making Inferences (Level 2)

After

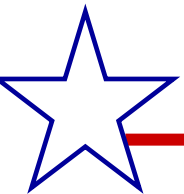
- Story Grammar
- Content Webbing
- Knowledge Charts
- Graphic Organizers
- Summarizing





Comprehension in Level 2

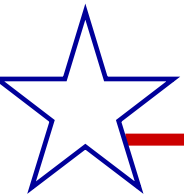
- Carefully designed to build on Big Ideas of Social Studies and Science
 - Problem - Solution – effect
 - Multiple Perspectives
- Careful building of background knowledge
 - Content learned is used over and over.
 - Facilitated teaching how make inferences.

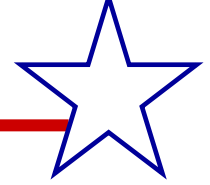




Vocabulary Instruction

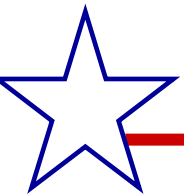
- Major Focus of Level 2
- Words taught directly are carefully chosen to have high utility beyond that day's lesson.
- Great emphasis placed on inferring meaning of new words.
- Great emphasis placed on using morphographic information to determine word meaning.

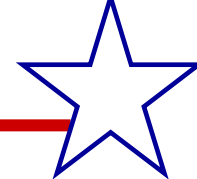




Scaling Up

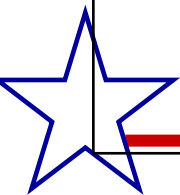
- What happens in the real world?





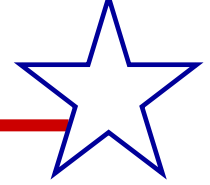
Adding on Tier 2

Study	Hours of Instruction	Intervention Type	Reading %tile for inclusion as at-risk	% of Students below the 30th%tile at end of study*
Torgesen et al., 2000 (EIR)	Whole Year	small groups of 3-5	18th	1.4%
Torgesen et al., 2003 (EIR)	Whole Year	small groups of 3-5	18th	0.8%
Mathes et al., 2005a (EIR)	Whole Year	small groups of 3	18th	0.02%
Mathes et al., 2005b (Responsive)	Whole Year	small groups of 3-5	18th	1.7%
Chard & Harn., 2007 (EIR)	Whole Year	small groups of 3-5	15th	0.93%



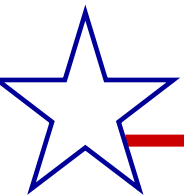
*extrapolated to entire population

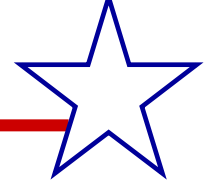




The Real World: Tier 2

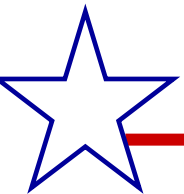
Study	Hours of Instruction	Intervention Type	Reading %tile for inclusion as At--Risk	% of Students below the 30th%tile at end of study*
Mathes & Denton, 2007a	25 weeks	Small group	15th	4.30%
Mathes & Denton, 2007b	25 weeks	Small group	15th	3.31%

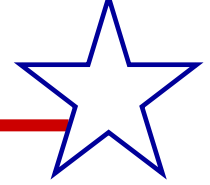




The Real World

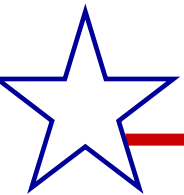
- What are the barriers to getting results?
 - Expertise
 - Teacher mobility
 - Infrastructure
 - Administrator beliefs
 - Administrator mobility

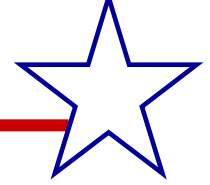




Expertise

- Teaching reading is a job for an expert.
- Many excellent educators do not have the specific expertise or materials needed for this very important task.





Teacher mobility over is a huge obstacle!

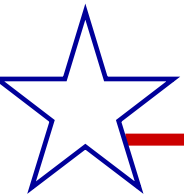
Example from 1 study

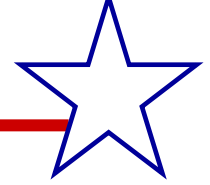
2004-05 = 45 teachers

2005-06 = 19 returning teachers (58% loss)

2006-07 = 8 returning teachers (83% total loss)

2007-08 = 4 returning teachers (92% total loss)





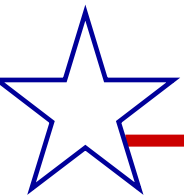
Infrastructure

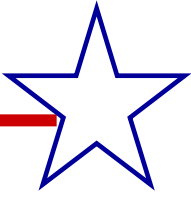
Effective Model

- Intervention teacher(s) provides small group in addition to core through-out the day.
- Special education, Title1, and general education work together seamlessly.

Ineffective Model

- General education teacher provides both core and Tier 2 intervention.
- Special services don't become involved until Tier 3.





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<http://www.smu.edu/irr>

