Tiered Intervention Within an RtI Framework

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From Early Literacy to Skilled Reading

- Oral language
- Phonemic awareness
- Letter to sound correspondences
- Decoding words
- Recognizing words
- Understanding words
- Building reading fluency
- Comprehending written text
- [good spelling would be nice, too]

What's the Fuss All About?

- Average readers already have these skills

- 40% of public school children nationwide are at risk for reading problems (NAEP, 2010)

- Improving instruction in K-3 reduces risk for 10-15% (Coyne et al., 2004; O'Connor, 2000; 2005; 2010; Vaughn, 2003)

RTI: A Layered Model

- ☐ Professional Development to improve instruction

- ☐ Measurement of children ("Gating")

- ☐ Feedback to teachers on children's progress

- ☐ Intervention for children who need it

- ☐ Flexible movement across groups and conditions

O'Connor (2000)

Intervention Is More than Good Instruction

- Intervention is:
  - Tightly focused on only a few crucial skills or strategies
  - Explicit:
    - Complex tasks or concepts are broken into small steps
    - Each step is modeled, rehearsed, applied, generalized
  - Matched to area of need
  - Monitored for student responsiveness
  - Changed when students respond poorly

Increasing Intervention Intensity

- Moving from Tier 2 to Tier 3:
  - Increase individualization
  - Fine-tune measures to identify specific targets for intervention
  - Assess learning more frequently:
    - Daily learning
    - 5-minute, 15-minute, and next-day retention
  - Adjust the intervention components
  - Form hypotheses and test them out

Tier 3 Tests the Source of the Problem

- For example:
  - Level of reading materials?
  - An unaddressed weakness?
  - Insufficient practice for skill acquisition or maintenance?
  - Motivation?
- Test the most likely hypothesis by implementing a change and monitoring learning

Issues to Operationalize RTI

- ☐ Assessments to evaluate "risk"

- ☐ Intervention matched to need

- ☐ Level to accept as "response"

- ☐ When to release students from, or increase the intensity of intervention

Linking Assessment to Intervention

- Alphabetic principle:
  - Segmenting & blending sounds in short words
  - Matching sounds to alphabet letters
- Reading words
  - Blending letter sounds
  - Letter combinations
  - Sight words
- Fluency
  - Rate and accuracy

Building Assessment for Comprehension

- Vocabulary
  - Conversational words
  - Academic words
- Understanding Text
  - Generating main ideas
  - Summarization
  - Text structures
    - Cause/effect, sequence, compare/contrast

English Language Learners in RtI

- The problem with identifying risk for RD (Klingner et al., 2006):
  - Is it reading risk?
  - Is it language risk?
- Does it matter?
  - Is our RtI system nimble?

What about Vocabulary in Tier 2?

- ☐ Student Issues:
  - ■ Native English speakers with RD often have poor spoken language (Catts et al., 2009, 2012)
  - ■ EL need conversational vocabulary to participate in Tier 2 intervention
  - ■ EL improve vocabulary in mixed EL/NES groups (Silverman et al., 2009)

- ☐ Potential Solution:
 - ■ Offer conversational opportunities focused on reading skills

Targets for Tier 2 Intervention

- Kindergarten
  - Alphabetic principle
  - Conversation & sentence expansion
- First Grade
  - Phonics and decoding words
  - Conversation & restatements
- Second grade
  - Affixes and reading fluently
  - Conversation, justifications, and vocabulary
    - Why do you think that…?
- Third grade
  - Multisyllable words, morphemes, and comprehension strategies
  - Justifications and evidence in text
    - Show me where….

Stretched Blending in Kindergarten
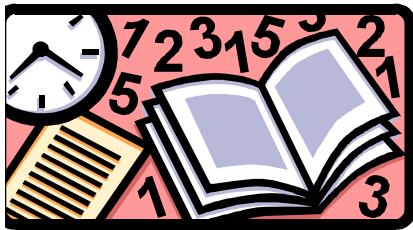
Find the First Sound

- Stretch and Stop on the First Sound
- Rehearsal strategies
  - Iteration
  - Feel it in your mouth
- Use words that begin with letter sounds you are teaching

Teaching Letter Sounds

- ☐ Avoid alphabetical order (Carnine et al., 1997)
- ☐ Use cumulative introduction
- ☐ Teach short vowels in kindergarten
- ☐ Start teaching letter sounds as soon as possible
- ☐ Integrate letter sounds with phonological awareness activities (Ball & Blachman, 1991; O'Connor & Jenkins, 1995)
- ☐ Assess letter knowledge, and begin "catch-up" instruction immediately

Onset-rime Segmenting

Segment 3-phoneme Words

Ex: Segment to Spell in K-1 (O'Connor et al., 2005)

a   m   s   t   i   f

Phonics

- ☐ Teach common sounds first
- ☐ Teach blending letter sounds
- ☐ After 18-20 sounds are well known, add consonant digraphs like th, wh, ch
- ☐ After consonant digraphs, introduce letter combinations (ee, ar, ing, or, al, er, ou)
- ☐ Next add the silent -e Rule

Teaching with Synthetic Phonics

- *Flat*. Say *flat*.

- Say *flat* slowly.

- How does flat start?

  - Which letter makes that sound?

- *Flat*. What comes after /fff/?

  - Which letter makes that sound?

- Say all the sounds. Write *flat*.

- Sound it out. What word did you write?

ar says /ar/

- Which letters say /ar/? [a-r]

- What does a-r say? [/ar/]

- Write the sound /ar/. [Students write a-r]

- Now write *car*.

- Underline the letters that say /ar/.

- Read what you wrote. [car]

- Write far. [Use same procedure for *part, dark, tar, park*, and ask students to read back their words]

Patterns in the 100 Most Common Words

- th: that, than, this
- or: for, or, more
- ch: much, [which]
- wh: when, which, what
- ee: see, three
- al: all, call, also
- ou: out, around
- er: her, after
- ar: are, part

And for Students Who Reverse…

Stretched blending [lap]:

Sound it out:

- ☐ Mmmiiix = mix
- ☐ Lllaaap = lap

Bigram blending: [kit]

- ☐ Say the middle sound: iiii
- ☐ Add the first sound: kiiii
- ☐ Do it again: kiiiit = kit

Strategies to Keep Going

- Firm these up first:
- Segment to Spell
- Phonics
- High frequency words
- [and meanings of words]

Which words can the student decode?

cent	tab	put	must
cut	fat	cab	gin
send	pin	rust	son
was	ten	chest	gas
some	hat	wish	fast
mind	tent	walk	ship

Sight Words

- 25 high frequency words make up nearly 1/3 of all print for primary readers

- 100 high frequency words make up nearly 1/2 of all print

28 High Frequency Words

the	you	are	this
of	that	as	from
and	it	with	I
a	he	his	have
to	for	they	or
in	was	at	by
is	on	be	one

Teaching Sight Words

- Constant time delay
- Spelling words aloud
- Word walls [ok, but be CAREFUL]

What About Inventive Spelling?

☐ Strong research support in Grades K-1

☐ By Grade 1, maintain dual accountability:

   ■ Require correct spelling for known, decodable words

   ■ Allow inventive spelling for irregularly spelled & difficult words

Read Connected Text

- As you teach sounds, blending, & decoding:
  - Predictable books
  - Student generated fill-ins
  - Decodable sentences
- As children decode independently:
  - Add decodable books
- As you teach letter patterns
  - Broaden books choices as skills grow

And the Children Who Fall Behind?

- Pocket children
- Cumulative introduction
- Review many times daily

Interventions in Second Grade

- Common letter patterns & affixes
- Fluency
- Conversation & justifications
  - Why do you think that…?

Most Common Affixes

- Inflected endings: -ed, -ing, -s, -es
- Prefixes
  - Un-, re-, in-, dis- account for 58% of words with prefixes (White et al., 1989)
- Suffixes
  - -ly, -er/or, -sion/tion, -ible/able, -al, -y, -ness, -less

Why Bother Building Fluency?

☐ One piece of the comprehension puzzle

☐ Minimum fluency requirements (Good et al., in press; O'Connor et al., 2002, 2007)

☐ Silent reading is NOT effective in improving fluency (NRP, 2000)

☐ Building fluency requires frequent, long-term practice

Strategies to Increase Fluency

- Rereading (Dowhower, 1991; Sindelar et al., 1990)

- Partner reading (Fuchs et al; 1998; Greenwood et al., 1998)

- Control the difficulty level of text (O'Connor et al., 2002, 2011)

Reading Rates

Grade	Average Rate	Danger
1, March	45	25
1, May	60	40
2, Dec	75	50
2, May	100	60
3, Dec	120	70
3, May	135	80

What about rates beyond 3rd grade?

- ☐ Work to move all children > 90 wpm

- ☐ Beyond 120 wpm, no evidence for direct improvement of reading comprehension

2 Methods of Partner Reading

- **Modeled reading (PALS)**
  - Each student reads in 5 minute intervals
  - Strongest partner reads first
  - Allows a model for the poorer reader
- **Sentence-by-sentence (CWPT)**
  - Partners take turns reading sentence by sentence
  - Reread with other student starting first
  - Encourages attention and error correction

Findings from our Fluency Research

Interventions in Third Grade

- Morphemes
- BEST
- Rules for combining morphemes
- Comprehension strategies
- Continue fluency practice, if needed
- Generating justifications, finding evidence in text

Morphemes

- The meaningful parts of words
  - Improves decoding
  - Improves with spelling
  - Reinforces word meanings

Teaching Morphemes…

(The meaningful parts of words)

- "not"
  - Un, dis, in, im (disloyal, unaware, invisible, imperfect)
- "excess"
  - Out, over, super (outlive, overflow, superhuman)
- "number"
  - Uni, mono, bi, semi (uniform, monofilament, bicolor, semiarid)
- "in the direction of"
  - Ward (skyward, northward)
- "full of"
  - Ful (merciful, beautiful)

English/Spanish Cognates from Morphemes

- Google for lists
- Praise student use of cognates
  - Adult/adulto
  - Atmosphere/atmosfera
  - Chimpanzee/chimpancé
  - Enter/entrar
  - Intelligence/inteligencia

Inter-- means between

- What does *inter*-- mean?
- So what does *interstate* mean?
- What's a word for a highway between states?
- What would *interperson* mean?
- So what are *interpersonal skills*?

BEST (or DISSECT) for Multisyllabic Words

- ☐ Break apart

- ☐ Examine the root

- ☐ Say the parts

- ☐ Try the whole thing

BEST Examples

- Understandingly
- Uncomfortable
- Strengthening