Teaching Every Child to Read: The Instructional challenges

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The goal of our work in Reading First is to insure that all our schools are able to:

Help all the children like **Andrew** fly to even greater heights and advance to complex reading skills

Insure that all the children like **David** receive the explicit and systematic support they need to build a foundation from which they, too, can fly
Something almost everyone can agree on about reading

The best way to determine whether we have been successful in teaching all children to read is to assess their reading comprehension using reliable and valid tests.

Our goal is to help all children acquire the skills and knowledge required to construct meaning from text: we also want them to read fluently and to value reading for pleasure and learning.
What skills, knowledge, and attitudes are required for good reading comprehension?
What we know about the factors that affect reading comprehension

Proficient comprehension of text is influenced by:

<table>
<thead>
<tr>
<th>Accurate and fluent word reading skills</th>
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</thead>
<tbody>
<tr>
<td>Oral language skills (vocabulary, linguistic comprehension)</td>
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<tr>
<td>Extent of conceptual and factual knowledge</td>
</tr>
<tr>
<td>Knowledge and skill in use of cognitive strategies to improve comprehension or repair it when it breaks down.</td>
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<tr>
<td>Reasoning and inferential skills</td>
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<td>Motivation to understand and interest in task and materials</td>
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</table>
Effective early reading instruction must build reading skills in five important areas by providing instruction that is both engaging and motivating.

- Phonemic Awareness
- Phonics
- Fluency
- Vocabulary
- Comprehension strategies

Taught by methods that are...

- Identifying words accurately and fluently
- Constructing meaning once words are identified
- Engaging & motivating
Taking a closer look at the skills and knowledge that are required to perform well on measures of reading comprehension given in third grade and higher.

Do the skills that contribute most importantly to performance on these tests change from 3rd to 7th, to 10th grades?

What areas are most troublesome for children who struggle on these tests?
How the study was conducted:

Gave 2 hour battery of language, reading, nonverbal reasoning, and memory tests to approximately 200 randomly selected children in each grade at 3 locations in Florida who had also taken the SAT9 test.

**Language** – Wisc Vocab and Similarities
  Listening comprehension

**Reading** – Oral reading fluency passages, TOWRE, Gray Oral Reading Test

**NV Reasoning** – Wisc Matrix Reasoning, Block Design

**Working Memory** – Listening span, Reading Span
Fluency

Percent of variance accounted for

3rd Grade

Verbal

Non Verbal

Memory
“Reading is thinking guided by print”
(Perfetti, 1995)
Important Conclusions from the Study

1. The most important reading and language factors that explain individual differences in performance on a widely used measure of reading comprehension are **reading fluency** and **vocabulary/verbal reasoning**.

2. Differences in reading fluency (accuracy and speed) are particularly important in explaining differences among children in performance at third grade, and vocabulary/verbal reasoning differences become increasingly more important as text becomes more complex.
What difficulties are many children in Reading First Schools Likely to experience on these tests?

Let’s look at some data from one large state -- Florida
Oral Reading Fluency – End of Third Grade

Ave. WPM = 105
35th percentile

29,475 students

23% high risk

Std. Dev = 36.87
Mean = 105.3
N = 29745.00

Assess 4 ORF

200.0
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0

0.0 20.0 40.0 60.0 80.0 100.0 120.0 140.0 160.0 180.0 200.0 220.0 240.0 260.0 280.0
Assess 4 OLV Percentile

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<th>Percentile</th>
<th>Value</th>
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<td>100.0</td>
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<td>90.0</td>
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<td>80.0</td>
<td>3</td>
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<tr>
<td>70.0</td>
<td>4</td>
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<td>60.0</td>
<td>5</td>
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<td>50.0</td>
<td>6</td>
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<tr>
<td>40.0</td>
<td>7</td>
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<td>30.0</td>
<td>8</td>
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<tr>
<td>20.0</td>
<td>9</td>
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<td>10.0</td>
<td>10</td>
</tr>
<tr>
<td>0.0</td>
<td>11</td>
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</tbody>
</table>

Std. Dev = 26.72
Mean = 39.0
N = 29466.00

Receptive vocabulary, End of Third Grade

Ave percentile = 34th

29,466 students

31% high risk
We know how to help almost all children become accurate and fluent readers by third grade.
The very best teachers of children who have difficulties learning to read are Relentless in their pursuit of every child.
The very best teachers of children who have difficulties learning to read are

Relentless

Let no child “escape” from first grade without being proficient in phonemic decoding skills
Why is it important for children to acquire good phonemic decoding skills (phonics) early in reading development?

Because learning to read involves everyday encounters with words the child has never before seen in print.

Phonemic analysis provides the most important single clue to the identity of unknown words in print.
The most efficient way to make an “accurate first attempt” at the identity of a new word is:

First, do phonemic analysis and try an approximate pronunciation

Then, close in on the exact right word by finding one containing the right sounds, that also makes sense in the sentence.

(chapter 10, Preventing Reading Difficulties in Young Children (2000)
The connection to reading fluency:

To be a fluent reader, a child must be able to recognize most of the words in a passage “by sight”
These are interesting and challenging times for anyone whose professional responsibilities are related in any way to literacy outcomes among school children. For, in spite of all our new knowledge about reading and reading instruction, there is a widespread concern that public education is not as effective as it should be in teaching all children to read.
The report of the National Research Council pointed out that these concerns about literacy derive not from declining levels of literacy in our schools but rather from recognition that the demands for high levels of literacy are rapidly accelerating in our society.
The connection to reading fluency:

To be a fluent reader, a child must be able to recognize most of the words in a passage “by sight”

Children must correctly identify words 3-8 times before they become “sight words”

Children must make accurate first attempts when they encounter new words, or the growth of their “sight word vocabulary” will be delayed—they will not become fluent readers
Words likely to be encountered for the first time in first grade:

- animal
- faster
- happy
- never
- time
- sleep
- rabbit
<table>
<thead>
<tr>
<th>Words likely to be encountered for the first time in second grade</th>
<th>amaze</th>
<th>beach</th>
<th>comfortable</th>
<th>example</th>
<th>interesting</th>
<th>grease</th>
<th>stiff</th>
<th>sweep</th>
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In the middle of a battle, it was the duty for a warrior to wear his full set of armor whenever he was in battle - even in times of war! When a warrior believed he was in battle friends, he would show his courage. This display of courage showed that the warrior felt brave and safe.
During the middle ages, it was the custom for a knight to wear his full set of armor whenever he appeared in public - even in times of peace! When a knight believed he was among friends, he would remove his helmet. This symbol of friendship showed that the knight felt welcome and safe.
The very best teachers of children who have difficulties learning to read are

**Relentless**

As children become accurate and independent readers, **encourage**, **cajole**, **lead**, **beg**, **support**, **demand**, **reward** them for reading as broadly and deeply as possible.
Dysfluent reading at the end of third grade: three common paths

1. Failure to acquire and use phonemic decoding skills while reading. This interferes with independent reading, and makes reading inaccurate. Both these things interfere with growth of reading fluency.

2. Acquiring phonemic decoding skills late - mid second grade or early third grade. This causes the child to miss out on one or two years of productive fluency practice.

3. Early acquisition of phonemic decoding skills, but failure to use them in wide reading. This reduces opportunities for learning to recognize the thousands of word ‘by sight’ that are required for fluent reading in third grade.
What evidence is there that we know how to help all children become accurate and fluent readers by third grade?
We can prevent early problems with reading accuracy in almost all children

Percent of children scoring below the 30th percentile

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<th>% delayed</th>
<th>overall %</th>
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<td>174 hrs.- classroom</td>
<td>35%</td>
<td>6%</td>
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<td>5%</td>
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Fourth grade follow-up for students participating in early intervention through second grade
Evidence from one school that we can do substantially better than ever before

**School Characteristics:**

- 70% Free and Reduced Lunch (going up each year)
- 65% minority (mostly African-American)

**Elements of Curriculum Change:**

- Movement to a more systematic and explicit reading curriculum beginning in 1994-1995 school year (incomplete implementation) for K-2, Improved implementation in 1995-1996
- Implementation in Fall of 1996 of screening and more intensive small group instruction for at-risk students
Hartsfield Elementary Progress over five years

Proportion falling below the 25th percentile in word reading ability at the end of first grade

<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion</th>
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<tbody>
<tr>
<td>1995</td>
<td>31.8</td>
</tr>
<tr>
<td>1996</td>
<td>20.4</td>
</tr>
<tr>
<td>1997</td>
<td>10.9</td>
</tr>
<tr>
<td>1998</td>
<td>6.7</td>
</tr>
<tr>
<td>1999</td>
<td>3.7</td>
</tr>
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</table>

Average Percentile for entire grade (n=105)

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<th>Average Percentile</th>
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</thead>
<tbody>
<tr>
<td>1995</td>
<td>48.9</td>
</tr>
<tr>
<td>1996</td>
<td>55.2</td>
</tr>
<tr>
<td>1997</td>
<td>61.4</td>
</tr>
<tr>
<td>1998</td>
<td>73.5</td>
</tr>
<tr>
<td>1999</td>
<td>81.7</td>
</tr>
</tbody>
</table>

Screening at beginning of first grade, with extra instruction for those in bottom 30-40%
Why the disparity between early word-level outcomes and later comprehension of complex texts?

Demands of vocabulary in complex text at third grade and higher place stress on the remaining SES related “vocabulary gap”

More complex text demands reading comprehension strategies and higher level thinking and reasoning skills that remain “deficient” in many children
The Challenge of the “vocabulary gap”

This gap arises because of massive differences in opportunities to learn “school vocabulary” in the home.

The gap must be significantly reduced in order to enable proficient reading comprehension of complex texts by third grade.
More first year data from Florida

Average Percentile

Percentile on test of Oral Vocab.

32 31 34 34

Bottom 20%

12 8 9 12

Kinder. 1st 2nd 3rd
Percent free/reduced lunch students

Average = 74%

Std. Dev = 15.97
Mean = 74.4
N = 315.00
Big ideas from “Bringing Words to Life”

First-grade children from higher SES groups know about twice as many words as lower SES children.

Poor children, who enter school with vocabulary deficiencies have a particularly difficult time learning words from “context”.

Research has discovered much more powerful ways of teaching vocabulary than are typically used in classrooms.

A “robust” approach to vocabulary instruction involves directly explaining the meanings of words along with thought-provoking, playful, interactive follow-up.
The very best teachers of children who have difficulties learning to read are Relentless.

Beginning in Kindergarten, teach vocabulary and thinking skills as intensely, and robustly as possible.
Remember what reading becomes as children move through elementary and into middle and high school

Reading Comprehension is:

“thinking guided by print”

Perfetti, 1985
Conclusions:

We know how to prevent problems in reading accuracy and fluency in almost all children—whether we do it or not depends most on “how we feel about the fact we haven’t done it so far”.

We have some promising new techniques for teaching vocabulary in a way that will generalize to reading comprehension. We must incorporate these techniques into our instruction in a very powerful way.
One final thought...

To “leave no child behind in reading is the most difficult educational challenge any of us have ever faced.

It will require relentless pursuit of the goal of teaching all children what they need to know to be good readers....
Thank You