Current Issues in Assessment and Intervention for Younger and Older Students

Dr. Joseph K. Torgesen

Florida State University and The Florida Center for Reading Research

NASP Workshop, 2004
Congress recently passed the No Child Left Behind Act. Part of that law authorized spending approximately 5 Billion dollars over the next six years to improve reading instruction in grades k-3. This is called the Reading First Initiative.

The goal: Every child in America reading at grade level by the end of grade three within 12 years.
Why do we have Reading First

1. Far too many poor and minority children are being “left behind” when it comes to growth of proficient reading skills
Right now, all over the United States, we are leaving too many children behind in reading. And, a large share of those children come from poor and minority homes.

Percent of Students Performing Below Basic Level - 37%

- White: 27%
- Black: 63%
- Hispanic: 58%
- Poor: 60%
- Non-poor: 26%
“Current difficulties in reading largely originate from rising demands for literacy, not from declining absolute levels of literacy”

Report of the National Research Council
THINK of one decent job that doesn’t require good reading skills.

READ! SUCCEED!
Rising needs for high levels of literacy in our society demand that schools break the mold of past performance—we clearly must do better than has ever been done before.
Although, as a country, we must do substantially better than we have ever done before, this is not going to be easy....
Long Term Trends in Reading Achievement
From the National Assessment of Educational Progress
Why do we have Reading First

1. Far too many poor and minority children are being “left behind” when it comes to growth of proficient reading skills

2. Prevention of reading problems is far more effective and humane than trying to remediate after children fail
Reading stimulates general cognitive growth—particularly verbal skills

Support your local brain cells
READ.
Benefits of getting off to a strong start

1. Become independent readers earlier, get more reading practice both in and out of school – this is especially important for development of fluency

2. Success brings greater motivation—develop self confidence as a reader

3. Broader reading brings more exposure to a wider range of words -- vocabulary

4. Broader reading helps to build general knowledge-skilled, fluent reading critical for “reading to learn”
What makes us think we can do better?

1. There are lots of examples of schools that, in fact, beat the odds in reading achievement.
Why are so many children currently being left behind?

1. Many elementary schools are not organized or focused in ways that most effectively promote literacy in all children.
2. Teachers often do not possess the special knowledge or teaching skill to effectively teach children who experience difficulties learning to read.
3. Many families and neighborhood environments do not provide experiences that prepare children to learn to read well.
4. There is significant variability in the language-based talents required for learning to read.
5. Many schools do not really expect children from low wealth or minority backgrounds to learn to read well.
6. Teachers often do not have adequate materials or instructional time available to them to effectively promote literacy in all their children.
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“soft bigotry of low expectations”
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 balanced 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

Screening at beginning of first grade, with extra instruction for those in bottom 30-40%

Average Percentile for entire grade (n=105)

1995: 31.8
1996: 20.4
1997: 10.9
1998: 6.7
1999: 3.7

48.9 55.2 61.4 73.5 81.7
Proportion falling below the 25th Percentile

Average Percentile


Hartsfield Elementary Progress over five years

Average Percentile


31.8 20.4 10.9 6.7 3.7

14.5 9.0 5.4 2.4

58.2 67.1 74.1 81.5
FCAT Performance in Spring, 2003

Hartsfield Elem. State Average

Level 2 Level 1

10 15 20 25 30 35 40

Level 2
Level 1

Hartsfield Elem. State Average
What makes us think we can do better?

1. There are lots of examples of schools that, in fact, beat the odds in reading achievement.

2. A large amount of money has recently been focused on improving reading outcomes in grades K-3 in our weakest schools.

3. There is a strong sense among policy makers that research has produced new knowledge about how best to teach reading to children who come to school at-risk for reading failure.
How the “new research” is different--

1. It is much, much more extensive

2. It has been much better funded, and it has been executed at a much higher level of sophistication -- larger samples, longitudinal designs, better measurement technology

3. It has involved a convergence of findings from both basic science on the nature of reading and from instructional studies that implement those findings
The Convergence between the cognitive science of reading and instructional research

From cognitive science

How do skilled readers process text with comprehension so rapidly and accurately?

What must kindergarten children know and be able to do to become independent readers?

Why do some children with good intelligence and strong home support struggle in learning to read?

How is early skill in learning to read accurately linked to later skills in reading fluently?

How are “good thinking skills” linked to good reading comprehension?
Preventing Reading Difficulties in Young Children

In 1995, the U.S. Department of Education and the National Institutes of Health

National Academy of Sciences

Report from the National Research Council

1998
In 1997, United States Congress

National Institute of Child Health and Human Development & U.S. Department of Education

Report of the National Reading Panel
Teaching Reading
Is
Rocket Science

What Expert Teachers of Reading Should Know and Be Able To Do

American Federation of Teachers
Available from:
National Institute for Literacy
1-800-228-8813
EdPubOrders@aspensys.com
www.nifl.gov
Reading First’s formula for reading improvement based on scientific research in reading and reading development:

\[ 5 + ii + 3 + iii = \]

No Child Left Behind
5 + ii + 3 + iii = NCLB

Five Instructional Components:

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

Identifying words accurately and fluently
Constructing meaning once words are identified
Fundamental discoveries about how children learn to read

1. Children who enter first grade weak in phonemic awareness have difficulties learning to “crack the code” of written language
What is Phonological Awareness?
Phonological awareness involves the understanding that spoken words are composed of segments of sound smaller than a syllable. It also involves the ability to notice, think about, or manipulate the individual sounds in words.

Do the words cat and fat sound the same at the end?

Do man and fan begin with the same sound?

What is the first sound in the word man?
Words are composed of strings of phonemes. A phoneme is the smallest unit of sound in a word that makes a difference to its identity.
Having Fun…..

Number your paper from 1 to 6

Do not look to your neighbor for assistance!
Phonological awareness involves the understanding that spoken words are composed of segments of sound smaller than a syllable. It also involves the ability to notice, think about, or manipulate the individual sounds in words.
Why is phonological awareness important in learning to read?
1. **It helps children understand the alphabetic principle**

Children must understand that the words in their oral language are composed of small segments of sound in order to comprehend the way that language is represented by print.

Without at least emergent levels of phonemic awareness, the rationale for learning individual letter sounds, and “sounding out” words is not understandable.
2. It makes it possible to generate possibilities for words in context that are only partially “sounded out.”
In order to begin to use the alphabetic principle in reading, children must have knowledge and skill in three areas:

1. Letter-sound knowledge

2. Basic phonological awareness

3. Ability to use context to help identify words once they are partially decoded phonetically.
The boy _________ the dog in the woods.

The boy ch ____ the dog in the woods
Summary: Phonemic awareness helps children to become accurate and independent readers

1. It helps them understand the rationale for using letter-sound relations to help identify words in text.

2. It improves the accuracy of their “first guesses at the identity of unknown words they encounter in text.”
Why is it so difficult for some children to acquire sufficient phonemic awareness to enable good growth in word reading ability?

Discovery work with Phonemes

*Why speech is easy and reading is hard*

Every phoneme is made with a unique articulatory gesture

Phonemes differ in place and manner of articulation, and in voicing
Discovery work with Phonemes

Why speech is easy and reading is hard

Every phoneme is made with a unique articulatory gesture

Phonemes differ in place and manner of articulation, and in voicing

The phonemes in words are co-articulated. Their pronunciation overlaps, so that what we hear is a single, seamless beat of sound. As Frith (1978) explained, “although speech can be made visible on a spectrograph, the picture reveals no natural segments that might correspond to single letters.”
beet
bought
Phonemes are abstracted from the speech stream.

Phonemes have many allophonic variations that differ in acoustic properties, but which must be recognized as a single phoneme before the alphabet makes sense.
Some phonological humor….

Deficits in phonemic awareness create problems for many children, but they can also be devastating for dogs.
“Ha, ha, Biff. Guess What? After we go to the drugstore and the post office, I’m going to the vet’s to get tutored.”
Fundamental discoveries about how children learn to read

1. Children who enter first grade weak in phonemic awareness have difficulties learning to “crack the code” of written language

2. Children who do not acquire good phonemic decoding skills (phonics) in first grade tend to rely too much on guessing; they remain inaccurate in their reading and do not read independently.

“From all these different perspectives, two inescapable conclusions emerge. The first is that mastering the alphabetic principle is essential to becoming proficient in the skill of reading....” (Rayner, et al., 2001)

“The beginning reader must learn that the writing system encodes his or her spoken language in a systematic way”
What is “Phonics”?

It is a kind of knowledge
Which letters are used to represent which phonemes

It is a kind of skill
Pronounce this word...

blit fratchet
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.
Phonics knowledge and skill is important because it helps children improve the accuracy of their “first guesses” at the identity of unknown words in text.
Fundamental discoveries about how children learn to read

1. Children who enter first grade weak in phonemic awareness have difficulties learning to “crack the code” of written language

2. Children who do not acquire good phonemic decoding skills (phonics) in first grade tend to rely too much on guessing; they remain inaccurate in their reading and do not read independently.

3. Children must read widely and read accurately in order to acquire the “sight word vocabulary” that makes them fluent readers.
A common definition of reading fluency:

“Fluency is the ability to read text quickly, accurately, and with proper expression”
National Reading Panel

The most common method of measuring reading fluency in the early elementary grades

Measuring the number of accurate words per minute a child can read orally
Factors that might potentially influence oral reading rate

1. Proportion of words in text that are recognized as “sight words.”

2. Speed with which sight words are processed - affected by practice or individual differences in basic processing speed.

3. Speed of processes used to identify novel or unknown words -- phonetic decoding, analogy, context.

4. Speed with which word meanings are identified.

5. Speed at which overall meaning is constructed.

6. Individual choices about the trade-off between speed and accuracy.
A Model of Oral Reading Fluency: Factors that may limit oral reading rate:

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6. Individual choices about the trade-off between speed and accuracy.
# TOWRE Sight Word Efficiency

<table>
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<th>go</th>
<th>shop</th>
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<td>here</td>
<td>street</td>
<td>embassy</td>
<td>penitent</td>
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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.
### Marcel Adam Just and Patricia A. Carpenter

Eye fixations of a college student reading a scientific passage. Gazes within each sentence are sequentially numbered above the fixated words with the durations (in msec.) indicated below the sequence number.

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<td>767</td>
<td>450</td>
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Flywheels are one of the oldest mechanical devices known to man. Every internal-combustion engine contains a small flywheel that converts the jerky motion of the pistons into the smooth flow of energy that powers the drive shaft.

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<td>533</td>
<td>50</td>
<td>366</td>
<td>566</td>
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Why is early development of **accurate phonemic decoding skills** linked to later **fluency** in reading?

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

Children must correctly pronounce words 5-10 times before they become “sight words”

Children must make accurate first guesses when they encounter new words, or the growth of their “sight word vocabulary” will be delayed—they will not become fluent readers
Facts about reading from scientific research:

The most efficient way to make an “accurate first guess” of 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 selecting a word with the right sounds in it, that also makes sense in the passage.
<table>
<thead>
<tr>
<th>Words likely to be encountered for the first time in first grade</th>
<th>animal</th>
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<td>faster</td>
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<td></td>
<td>happy</td>
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<td>never</td>
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<td>time</td>
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<td>sleep</td>
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<tr>
<td></td>
<td>rabbit</td>
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<tr>
<td>Words likely to be encountered for the first time in second grade</td>
<td>amaze</td>
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</tbody>
</table>
In the middle of the day, it was the time for a warrior to wear his full set of armor whenever he believed in himself — even in times of danger! When a warrior believed he was close friends, he would show his courage. This act of bravery showed that the warrior felt confident 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 challenge of continuing growth in fluency becomes even greater after third grade. 4th, 5th, and 6th graders encounter about 10,000 words they have never seen before in print during a year’s worth of reading. Furthermore, each of these “new” words occurs only about 10 times in a year’s worth of reading. Sadly, it's very difficult to correctly guess the identity of these “new words” just from the context of the passage.
Thus, it's important to have reliable decoding strategies to improve the accuracy with which "new" words are identified when they are first encountered in text.
Fundamental discoveries about how children learn to read

1. Children who enter first grade weak in phonemic awareness have difficulties learning to “crack the code” of written language.

2. Children who do not acquire good phonemic decoding skills (phonics) in first grade tend to rely too much on guessing; they remain inaccurate in their reading and do not read independently.

3. Children must read widely and read accurately in order to acquire the “sight word vocabulary” that makes them fluent readers.

4. Children who can read the words in grade level text fluently and accurately can more easily comprehend the meaning of what they are reading.
As children encounter increasingly complex text after third grade, reading comes to be more accurately characterized as “thinking guided by print.”

If a child must engage in frequent problem solving to identify unknown words, he will not be able to focus on thinking about the overall meaning of the passage.
Fundamental discoveries about how children learn to read

5. In addition to being able to identify printed words accurately and fluently, children must also know the meanings of many words in order to comprehend what they read.
Relationship between Vocabulary Score (PPVT) measures in Kindergarten and later reading comprehension

End of Grade One -- .45

End of Grade Four -- .62

End of Grade Seven -- .69

The relationship of vocabulary to reading comprehension gets stronger as reading material becomes more complex and the vocabulary becomes more extensive (Snow, 2002)
Fundamental discoveries about how children learn to read

5. In addition to being able to identify printed words accurately and fluently, children must also know the meanings of many words in order to comprehend what they read.

6. Children must also develop and actively use a variety of comprehension monitoring and comprehension building strategies to reliably construct the meaning of text.
Fundamental discoveries about how children learn to read

5. In addition to being able to identify printed words accurately and fluently, children must also know the meanings of many words in order to comprehend what they read.

6. Children must also develop and actively use a variety of comprehension monitoring and comprehension building strategies to reliably construct the meaning of text.

7. Motivation for learning to read is important to early reading development, and continued motivation to read is critical for reading development after basic skills are well established – growth of reading skills after 3-4th grade is heavily influenced by amount of reading the child does.
5 + \textit{ii} + 3 + \textit{iii} = \textit{NCLB}

“High quality initial instruction in the classroom is the first line of defense against reading difficulties”
NRC report, 1999

“The characteristics of a good program are that it contains the five elements identified in the legislation, and that these elements are integrated into a coherent instructional design. A coherent design includes explicit instructional strategies, coordinated instructional sequences, ample practice opportunities and aligned student materials.”
What we know about reading instruction:

1. Systematic and explicit approaches to instruction are consistently more effective than approaches that depend on student discovery and inference.

   “From all these different perspectives, two inescapable conclusions emerge. The first is that mastering the alphabetic principle is essential to becoming proficient in the skill of reading.... and the second is that instructional techniques (namely phonics) that teach this principle directly are more effective than those that do not.” (Rayner, et al., 2001)

This seems to be especially the case for children who are at risk in some way for having difficulty learning to read
“...we urge teachers to remember that reading must be grounded in a firm understanding of the *connections* between letters and sounds. Instructors should recognize the ample evidence that youngsters who are *directly taught phonics* become better at reading, spelling, and comprehension than those who must pick up all the confusing rules of English on their own. Educators who deny this reality are neglecting decades of research. They are also neglecting the needs of their students.

What we know about reading instruction:

1. Systematic and explicit approaches to instruction are consistently more effective than approaches that depend on student discovery and inference.

2. The need for explicit instruction extends beyond phonics to fluency, vocabulary and comprehension strategies.
We must be sure we provide very powerful instruction in vocabulary to help poor and minority children “close the gap” by third grade.

There are 26 letters to learn.

There are 44 phonemes to worry about.

There are 75,000 words to know.

Powerful instruction in vocabulary is more helpful to children on a reading comprehension test in 4th grade than it is for the reading comprehension test they might take at the end of 1st grade.
But, it's almost certainly too late if we do not start to stimulate vocabulary growth in at-risk children until they enter school.

Pre-school uses of techniques like dialogic Reading
Dialogic Reading

→ Dialogic reading is a shared-reading intervention designed to promote the development of oral language skills.

→ Dialogic reading involves several changes in the way adults typically read books to children.

→ Central to these changes is a shift in roles. During typical shared-reading, the adult reads and the child listens...
Dialogic reading techniques guide the parent or teacher to engage in “dialogue” about the pictures and stories in books.

Dialogic reading is based on the idea that “How we read to children is as important as how frequently we read to them.”
Dialogic Reading - Level 1

Requires books with lots of colorful, interesting pictures

Ask questions about objects pictured in the book

  avoid “yes”-“no” questions, or pointing questions

Follow a child’s answer with another question

Help when needed

Repeat what the child says

Praise and encourage the child

Follow the child’s interest

Have Fun!
Dialogic Reading - Level 2

Ask open-ended questions

“Tell me what’s going on here”

Ask the child to say more

Expand what the child says

Child says: “Duck swimming” You say, “Right, the duck is swimming”

Have Fun!
5 + ii + 3 + iii = NCLB

Three types of assessment to guide instruction:

Screening to identify children who may need extra help

Diagnosis to determine their specific instructional needs

Progress Monitoring to determine if children are making adequate progress within current instructional environment
We must **systematically and continuously** assess progress in learning to read because there are huge individual differences in children’s talent and preparation for learning to read.

These differences in talent and preparation lead to huge differences in their instructional needs that must be identified early.
A central problem in reading instruction arises, not from the absolute level of children’s preparation for learning to read, but from the diversity in their levels of preparation

(Olson, 1998)
What we know about things that make reading difficult:

1. Early weaknesses in phonemic awareness and knowledge about letter sounds makes it very difficult to acquire skill in phonemic decoding that leads to the development of reading fluency.

Problems, or weaknesses in these areas can occur for two reasons:

   - Biologically based lack of talent in the phonological domain
   - Impoverished experience with standard English and print in the pre-school environment
Development of Phonological Sensitivity

SES Differences in Phonological Sensitivity

\(<\text{Cross-sectional study comparing the performance of 250 children from higher income families to 170 children from lower income families.}\>

\(<\text{Children were between two- and five-years of age.}\>\)
Children completed tests of phonological awareness that assessed their ability to detect, blend, or elide words, syllables, onset-rimes, or phonemes.
SES Differences in Phonological Sensitivity

Children from lower SES backgrounds have significantly less well developed phonological sensitivity.

Children from lower SES backgrounds experience significantly less growth in these skills during the preschool years compared to their higher SES counterparts.
Growth in “phonics” ability of children who begin first grade in the bottom 20% in Phoneme Awareness and Letter Knowledge (Torgesen & Mathes, 2000)
Growth in word reading ability of children who begin first grade in the bottom 20% in Phoneme Awareness and Letter Knowledge (Torgesen & Mathes, 2000)
Growth in reading comprehension of children who begin first grade in the bottom 20% in Phoneme Awareness and Letter Knowledge (Torgesen & Mathes, 2000)

Same verbal ability – very different Reading Comprehension
What we know about what makes reading difficult:

1. Weaknesses in phonemic awareness and knowledge about letter sounds makes it very difficult to acquire skill in phonemic decoding.

2. Weaknesses in vocabulary and oral language interfere with the development of reading comprehension skills.

Biologically based lack of broad verbal ability.

Impoverished experience with standard English in the pre-school environment.
Hart and Risley (1995) conducted a longitudinal study of children and families from three groups:

- Professional families
- Working-class families
- Families on welfare
Hart & Risley compared the mean number of interactions initiated per hour in each of the three groups.
Interactions

Hart & Risley also compared the mean number of minutes of interaction per hour in the three groups.
Cumulative Language Experiences

Cumulative Words Per Hour

- Welfare
- Working
- Professional
Cumulative Language Experiences

Different words used per hour

- Welfare
- Working
- Professional
Cumulative Language Experiences

Cumulative Words Spoken to Child
(in millions)

Age of child
(in months)

- Professional
- Working
- Welfare
The Effects of Weaknesses in Oral Language on Reading Growth
(Hirsch, 1996)

5.2 years difference

High Oral Language in Kindergarten

Low Oral Language in Kindergarten

Reading Age Level

Chronological Age
What we know about what makes reading difficult:

1. Weaknesses in phonemic awareness and knowledge about letter sounds makes it very difficult to acquire skill in phonemic decoding

2. Weaknesses in vocabulary and oral language interfere with the development of reading comprehension skills

3. Lack of appreciation for the importance of learning to read, or failure to acquire a motivation and interest in reading also limits reading growth
Implications of this understanding of reading growth and reading difficulties for assessment

**Screening** to identify children who may need extra help

**Diagnosis** to determine their specific instructional needs

**Progress Monitoring** to determine if children are making adequate progress within current instructional environment
Screening and Progress Monitoring

Kindergarten – phonemic awareness, letter knowledge, and vocabulary
Initial Sound Fluency -

A test of phonemic awareness for early kindergarten

# of Students 32164

49% 23% 28%
Letter Naming Fluency

A test of letter knowledge for kindergarten children
Vocabulary?

There are not currently available reliable, valid, and efficient measures for large scale screening or progress monitoring of vocabulary.

Diagnostic measures

Peabody Picture Vocabulary Test
Expressive One Word Vocabulary Test
Receptive One Word Vocabulary Test
Vocabulary subtest from Stanford Binet
Screening and Progress Monitoring

Kindergarten – phonemic awareness, letter knowledge, and vocabulary

1st Grade – phonemic awareness, alphabetic reading skill, oral reading fluency

Comprehension?

There are no reliable, valid, and efficient measures of reading comprehension available for screening and progress monitoring
Screening and Progress Monitoring

**Kindergarten** – phonemic awareness, letter knowledge, and vocabulary

**1st Grade** – phonemic awareness, alphabetic reading skill, oral reading fluency

**2nd Grade** – alphabetic reading skill, oral reading fluency

**3rd Grade** – alphabetic reading skill, oral reading fluency
Because of the huge diversity in children’s talent and preparation for learning to read, some children will require much, much more instruction and practice than others. Some of these immediate intensive interventions may be done by the classroom teacher, others will need to be done by other teaching personnel.
The top five myths about interventions for struggling readers

1. If a child is a “visual” learner, they should be taught to read using a visual, not an auditory strategy.

2. If a child has not learned “phonics” by the end of first grade, they need to be taught to read in some other way.

3. Children who struggle with phonemic awareness, vocabulary, or phonics in kindergarten and first grade will frequently “catch up” if given time.

4. We should take guidance from theories of “multiple intelligences” or “learning styles” to help us adapt our reading instruction for different children.

5. A little quality time with an enthusiastic volunteer tutor can solve most children’s reading problems.
The consensus view of most important instructional features for interventions

Interventions are more effective when they:

- Provide **systematic** and **explicit** instruction on whatever component skills are deficient: phonemic awareness, phonics, fluency, vocabulary, reading comprehension strategies
- Provide a significant increase in **intensity** of instruction
- Provide ample opportunities for guided practice of new skills
- Provide systematic cueing of appropriate strategies in context
- Provide appropriate levels of scaffolding as children learn to apply new skills
Interventions should be organized in tiers

Layers of intervention responding to student needs

Each tier provides more intensive and supportive intervention

Aimed at preventing reading disabilities
TIER I: Core class instruction

TIER I is comprised of three elements

- Core reading program
- Benchmark testing of students to determine instructional needs at least three times a year
- Ongoing professional development
<table>
<thead>
<tr>
<th>Focus</th>
<th>For all students in K through 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td>Scientific-based reading instruction and curriculum emphasizing the five critical elements of beginning reading</td>
</tr>
<tr>
<td>Grouping</td>
<td>Multiple grouping formats to meet student needs</td>
</tr>
<tr>
<td>Time</td>
<td>90 minutes per day or more</td>
</tr>
<tr>
<td>Assessment</td>
<td>Benchmark assessment at beginning, middle, and end of the academic year</td>
</tr>
<tr>
<td>Interventionist</td>
<td>General education teacher</td>
</tr>
<tr>
<td>Setting</td>
<td>General education classroom</td>
</tr>
</tbody>
</table>
TIER II: Supplemental instruction

Tier II is small-group supplemental instruction in addition to the time allotted for core reading instruction.

Tier II includes programs, strategies, and procedures designed and employed to *supplement, enhance, and support* Tier I.
## TIER II: SUPPLEMENTAL INSTRUCTION (cont’d)

<table>
<thead>
<tr>
<th>Focus</th>
<th>For students identified with marked reading difficulties, and who have not responded to Tier I efforts</th>
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<tr>
<td>Program</td>
<td>Specialized, scientifically based reading program(s) emphasizing the five critical elements of beginning reading</td>
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<tr>
<td>Grouping</td>
<td>Homogeneous small group instruction (1:3, 1:4, or 1:5)</td>
</tr>
<tr>
<td>Time</td>
<td>Minimum of 30 minutes per day in small group in addition to 90 minutes of core reading instruction</td>
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<tr>
<td>Assessment</td>
<td>Progress monitoring twice a month on target skill to ensure adequate progress and learning</td>
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<tr>
<td>Interventionist</td>
<td>Personnel determined by the school (e.g., a classroom teacher, a specialized reading teacher, an external interventionist)</td>
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<td>Setting</td>
<td>Appropriate setting designated by the school; may be within or outside of the classroom</td>
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</table>
Tier III is intensive, strategic, supplemental instruction specifically designed and customized small-group or 1:1 reading instruction that is extended beyond the time allocated for Tier I and Tier II.
### TIER III: INTENSIVE INTERVENTION (cont’d)

<table>
<thead>
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<th>Focus</th>
<th>For students with marked difficulties in reading or reading disabilities and who have not responded adequately to Tier I and Tier II efforts</th>
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<tr>
<td>Program</td>
<td>Sustained, intensive, scientifically based reading program(s) emphasizing the critical elements of reading for students with reading difficulties/disabilities</td>
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<tr>
<td>Grouping</td>
<td>Homogeneous small group instruction (1:1- 1:3)</td>
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<tr>
<td>Time</td>
<td>Minimum of two 30-minute sessions per day in small group or 1:1 in addition to 90 minutes of core reading instruction.</td>
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<td>Assessment</td>
<td>Progress monitoring twice a month on target skills to ensure adequate progress and learning</td>
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A range of methods can be used to provide immediate, intensive interventions

Small group work with the classroom teacher

Small group work with a reading resource (Title 1) teacher

Small group work with a special education teacher

Small group work with an aide or paraprofessional

Individual work with computer assisted instruction

1:1 work with volunteers

1:1 work with classroom or cross age peers
A range of methods can be used to provide immediate, intensive interventions

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Some useful references:


www.fcrr.org

The science of reading
Thank You