“The history of the profession has never been a particularly attractive subject in professional education, and one reason for this is that it is so deplorable a story.

For century after century all the way into the remote millennia of its origins, the profession got along by sheer guesswork and the crudest sort of empiricism. It is hard to conceive of a less scientific enterprise among human endeavors.”

Lewis Thomas (1983)
“Virtually anything that could be thought up for treatment was tried out at one time or another, and once tried, lasted decades or even centuries before giving it up.

It was, in retrospect, the most frivolous and irresponsible kind of human experimentation, based on nothing but trial and error, and usually resulting in precisely that sequence.”

Lewis Thomas (1983)
READING PROFICIENCY FOR ALL:

HAVE WE MET THIS GOAL?

NOT YET!
Why have we not met the reading goal?

• The sheer magnitude of the reading crisis in America
• The sheer complexity of reading development and difficulties
• The complexity of an effective implementation
THE SHEER MAGNITUDE OF THE READING CRISIS IN AMERICA
2007 results from National Assessment of Educational Progress at 4<sup>th</sup> Grade

Percent of 4<sup>th</sup> grade readers below Basic

- White: 23%
- Black: 54%
- Hispanic: 51%
- Poor: 50%
- Non-poor: 21%
2007 results from National Assessment of Educational Progress at 4th Grade

Percent of 4th graders reading below Basic

- Low Income: 50 - 53%
- High Income: 21 - 40%
Most Poor Children:

1. Are delayed in the development of phonemic awareness

2. Have had less exposure to print and the alphabet

3. Have vocabulary that are usually less well developed – \( \frac{1}{2} \) in poor children compared to other children

4. Have a range of experience and conceptual knowledge that is often limited or different compared to other students

5. Frequently do not have good models of reading or support for academics in their homes
PISA 2003: US 15 Year-Olds Rank Near The End Of The Pack Among 29 OECD Countries

<table>
<thead>
<tr>
<th>Subject</th>
<th>U.S. Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>READING</td>
<td>20\textsuperscript{TH}</td>
</tr>
<tr>
<td>MATH</td>
<td>24\textsuperscript{TH}</td>
</tr>
<tr>
<td>SCIENCE</td>
<td>19\textsuperscript{TH}</td>
</tr>
</tbody>
</table>

THE SHEER COMPLEXITY OF READING DEVELOPMENT AND READING DIFFICULTIES?
THE 3 FUNDAMENTAL RESEARCH QUESTIONS


1. How do we learn to read

2. Why do some kids (and adults) have difficulty

3. What can we do to eradicate that difficulty
NIH-NICHD Multidisciplinary Research Program
(North America; Lyon, 1985-2005)
What Do Kids Need To Know To Read?

A HECK OF A LOT
3 potential stumbling blocks to becoming a good reader (NRC Report, 1998)

1. Difficulty learning to read **words** accurately and fluently

2. Insufficient **vocabulary**, general knowledge, and reasoning skills to support **comprehension** of written language

3. Absence or loss of initial **motivation** to read
WHAT DOES THE RESEARCH TELL US?
Effective Reading Instruction

“Reading instruction effectiveness lies not with a single program or method but, rather, with a teacher who thoughtfully and analytically integrates various program, materials, and methods as the situation demands.”

(Duffy & Hoffman)
READING INSTRUCTION MUST BE INTEGRATED FROM KG- G12

• If a critical component is missing, students who are at risk will not develop the essential skill

• Success and failure in reading are opposite sides of the same coin- it’s the same theory, not two theories, one for success and another for failure

• Instruction is the key
How Do Children Learn To Read?

Phonological

And

Phonemic Awareness
How Do Children Learn To Read?

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.
Growth in word reading ability of children who begin first grade in the bottom 20% in Phoneme Awareness and Letter Knowledge  
(Torgeson & Mathes, 2000)
I NEED TO KNOW MY SOUNDS TO READ!
How Do Children Learn To Read?

PHONICS
Growth in “phonics” ability of children who begin first grade in the bottom 20% in Phoneme Awareness and Letter Knowledge (Torgesen & Mathes, 2000)
The Alphabetic Principle:
Do We Know It? Can We Teach It?

• Print represents speech through the alphabet

• Words are composed of internal units based on sound called “phonemes”

• In learning to read, children must understand that words have internal structures linked to sounds

• Children vary considerably in how easily they master this principle
It is a kind of **knowledge**
Knowing what letters are used to represent which phonemes……..

It is a kind of **skill**
knowing how to pronounce these nonsense words.
  bilt fratchet
How Do Children Learn To Read?

FLUENCY
Reading Fluency

• Fluency is partly an outcome of word recognition

• “ability to read connected text rapidly, smoothly, effortlessly, and automatically with little conscious attention to decoding” (Meyer, 2002)

• “rate and accuracy in oral reading” (Shinn et al., 1992)

• “immediate result of word recognition proficiency” (NRP, 2000)
How Do Children Learn To Read?

ORAL LANGUAGE

AND

VOCABULARY
State accountability measures of reading comprehension are not all alike, but they typically:

• Place high demands on vocabulary (word knowledge) and reasoning/inferential skills. These demands accelerate significantly after elementary school.

• Require students to read relatively long passages before asking them to answer questions. This places special demands on reading fluency.
State accountability measures of reading comprehension are not all alike, but they typically:

• Require students to read relatively long passages before asking them to answer questions.

• This places special demands on reading fluency.
The Effects of Weaknesses in Oral Language on Reading Growth

Reading Age Level

Chronological Age

High Oral Language in Kindergarten

Low Oral Language in Kindergarten

5.2

Hirsch, 1996
How many words should teachers teach per day to help close the gap?

- In 1st and 2nd grade, children need to learn 800+ words per year, about 2 per day.

- Children need to learn 2,000 to 3,000 new words each year from 3rd grade onward, about 6–8 per day.

- Research has shown that most typically developing children need to encounter a word about 12 times before they know it well enough to improve their comprehension.

Biemiller; Nagy & Anderson
Learning in rich contexts is valuable for vocabulary learning. Vocabulary words should be those that the learner will find useful in many contexts. When vocabulary items are derived from content learning materials, the learner will be better equipped to deal with specific reading matter in content areas.
There is a need for **direct instruction** of vocabulary items required for each specific text.

**Repetition and multiple exposure** to vocabulary items are important. Students should be given items that will be likely to appear in many contexts.

(Reprinted from National Reading Panel, 2000, p. 4-4)
Vocabulary learning is effective when it entails active engagement in learning tasks.

Computer technology can be used effectively to help teach vocabulary.

(Reprinted from National Reading Panel, 2000, p. 4-4)
Both usefulness and frequency should be considered for all students. 

**Three tiers of vocabulary:**

**Tier 1:** basic, short-easy words (see, water, up, how) August/Snow add cognates to this basic level (map/mapa) for ELL’s who speak Spanish.

**Tier II:** words that are critical to comprehension (every, while, although, never, reduce, expand, define, boldly, timidly).

**Tier III:** subject-matter-specific words (environment, trait).
Dependence on a single vocabulary instruction method will not result in optimal learning.

A *variety of methods* used effectively with emphasis on multimedia aspects of learning, richness of context in which words are to be learned, and the number of exposures to words that learners receive.

(Reprinted from National Reading Panel, 2000, p. 4-4)
Important Footnotes for ELL’s

• For ELL’s a rich **ORAL language foundation** is key.

• For ELL’s we must also explicitly teach **high-frequency words and important content words**

• For ELL’s who speak romance languages like Spanish or French, it is important to teach **cognates** as a connection to academic English.
Components of Effective Vocabulary Instruction

- Direct Teaching of Specific Words
- Teaching and Modeling Independent Word Learning Strategies
- Wide Reading
- Word Consciousness
- High-Quality Oral Language
## Rates of Yearly Improvement in Cohort 1 schools in First Grade across four measures (FCRR)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Estimated yearly increase in %GL from Yr1 to Yr4</th>
<th>Estimated yearly decrease in %HR from Yr1 to Yr4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonemic Decoding</td>
<td>4.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Oral Reading Fluency</td>
<td>2.7%</td>
<td>2%</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>1.3%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>1%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>
Rates of Yearly Improvement in Cohort 1 schools in Second Grade across three measures (FCRR)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Estimated yearly increase in %GL</th>
<th>Estimated yearly decrease in %HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Reading Fluency</td>
<td>2.7%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>2.3%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>1.3%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Four good books for instructional ideas

Making Sense of Phonics: The Hows and Whys
Isabel Beck: Guilford (2006)

Bringing Words to Life: Robust Vocabulary Instruction
Beck, McKeown, & Kucan: Guilford (2002)

Vocabulary Handbook
Consortium on Reading Excellence (2006)

Comprehension Process Instruction: Creating Success in Grades K-3
Block, Rogers, & Johnson (2004)
BREAK
READING COMPREHENSION
Which skills, knowledge, and attitudes are required for good reading comprehension, or proficient “grade level reading”? 
What we know about the factors that affect reading comprehension

Proficient comprehension of text is influenced by:

- Accurate and fluent word reading skills
- Oral language skills (vocabulary, linguistic comprehension)
- Extent of conceptual and factual knowledge
- Knowledge and skill in use of cognitive strategies to improve comprehension or repair it when it breaks down.
- Reasoning and inferential skills
- Motivation to understand and interest in task and materials
In other words, a student’s reading comprehension depends on:

- How well they read the words on the page
- How much knowledge they have, and how well they think
- How motivated they are to do “the work” of comprehension
Reading Comprehension Non-Negotiables

- A student must be able to read correctly, approximately **95 percent**, of the words accurately in text to comprehend what is read.

- MOREOVER, to comprehend, a student must know the meanings of **90 to 95** percent of the words being read.
Enhanced instruction in critical content

- Students with limited literacy skills typically do not acquire enough content knowledge to meet standards.

- Comprehension will not show long term improvement for struggling readers unless content area background knowledge is improved.

- When students have limited literacy, core curriculum teachers must compensate for their limited skills in the ways that they present the core content.

- Traditional secondary teacher planning and instruction focuses on planning to cover more content quickly and the result is poor content area learning for all students.

Torgesen, 2008
WHAT DOES IT TAKE TO UNDERSTAND WHAT YOU READ?

• Good readers are active readers
• They have clear goals in mind for their reading.
• They constantly evaluate whether the text, and their reading of it, is meeting their goals.
• Good readers typically look over the text before they read, noting such things as the structure of the text and text sections that might be most relevant to their reading goals.
WHAT DOES IT TAKE TO UNDERSTAND WHAT YOU READ?

• As they read, good readers frequently make predictions about what is to come.

• They read selectively, continually making decisions about their reading--what to read carefully, what to read quickly, what not to read, what to re-read, and so on.

• Good readers construct, revise, and question the meanings they make as they read.

• They draw upon, compare, and integrate their prior knowledge with material in the text.
WHAT DOES IT TAKE TO UNDERSTAND WHAT YOU READ?

• They think about the authors of the text, their style, beliefs, intentions, historical milieu, and so on.

• They monitor their understanding of the text, making adjustments in their reading as necessary. Good readers try to determine the meaning of unfamiliar words and concepts in the text, and deal with inconsistencies or gaps as needed.

• They evaluate the text’s quality and value, and react to the text in a range of ways, both intellectual and emotional.
WHAT DOES IT TAKE TO UNDERSTAND WHAT YOU READ?

• Good readers read different kinds of text differently. For example, when reading narrative, good readers attend closely to the setting and characters.

• When reading expository text they frequently construct and revise summaries of what they have read.

• For good readers, text processing occurs not only during ‘reading’ as we have traditionally defined it, but also during short breaks taken during reading, and even after the ‘reading’ itself has commenced.
The Many Strands that are Woven into Skilled Reading
(Scarborough, 2001)

**LANGUAGE COMPREHENSION**
- BACKGROUND KNOWLEDGE
- VOCABULARY KNOWLEDGE
- LANGUAGE STRUCTURES
- VERBAL REASONING
- LITERACY KNOWLEDGE

**WORD RECOGNITION**
- PHON. AWARENESS
- DECODING (and SPELLING)
- SIGHT RECOGNITION

Skilled Reading - fluent coordination of word reading and comprehension processes

increasingly automatic

increasingly strategic
PREVENTION, EARLY INTERVENTION, AND REMEDIATION
Change in Reading Skill for Children with Reading Disabilities who Experience Growth in Reading of .04 Standard Deviations a Year

Grade Level

- Grade 3
- Grade 4
- Grade 5
- Grade 6

Standard Score in Reading

- Average Readers
- Disabled Readers

- 70
- 71.8
HOW CAN WE PREVENT READING FAILURE?

- Development of Sensitive and Valid Screening Measures
- Professional Development and Use of a Professional Common Language
- Implementation of Three-Tier Models
- Continuous Assessment of Progress
- Appreciation of School Leadership and Capacity Factors
Early Intervention is Possible

• Risk characteristics present in Kindergarten and G1

• Letter sound knowledge, phonological awareness, oral language development

• Assess all children and INTERVENE- first in the classroom and then through supplemental instruction
Early Intervention is Effective

- Prevention studies in reading (and behavior) commonly show that 70-90% of at-risk children (bottom 20%) in K-2 can learn to read in average range (Fletcher, Lyon, et al., 2007)
The consensus view of most important instructional features for interventions

Interventions are more effective when they:

Provide **systematic** and **explicit** instruction on component skills that are deficient

Provide a significant increase in **intensity** of instruction

Provide ample opportunities for guided practice of new skills

Provide appropriate levels of scaffolding as children learn to apply new skills
<table>
<thead>
<tr>
<th>Study</th>
<th>Amt. of instruction</th>
<th>Pre RX</th>
<th>Post RX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foorman</td>
<td>174 hrs.- classroom</td>
<td>35%</td>
<td>6%</td>
</tr>
<tr>
<td>Felton</td>
<td>340 hrs. - groups of 8</td>
<td>32%</td>
<td>5%</td>
</tr>
<tr>
<td>Vellutino</td>
<td>35- 65 hrs. 1:1 tutoring</td>
<td>46%</td>
<td>7%</td>
</tr>
<tr>
<td>Torgesen</td>
<td>88 hrs. 1:1 tutoring</td>
<td>30%</td>
<td>4%</td>
</tr>
<tr>
<td>Torgesen</td>
<td>80 hrs. 1:3 tutoring</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>Torgesen</td>
<td>91 hrs. 1:3 or 1:5 tutoring</td>
<td>28%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Mathes</td>
<td>80 hrs. 1:3 tutoring</td>
<td>31%</td>
<td>.02%</td>
</tr>
</tbody>
</table>
Growth in Total Reading Skill Before, During, and Following Intensive Intervention (Torgesen, 2000)

Interval in Months Between Measurements

Standard Score

P-Pretest  Pre  Post  1 year  2 year

LIPS  EP

80  85  90  95

Growth in Total Reading Skill Before, During, and Following Intensive Intervention (Torgesen, 2000)
Outcomes from 67.5 Hours of Intensive LIPS Intervention (Torgesen, 2001)

- Word Attack: 96
- Text Reading Accuracy: 89
- Reading Comp.: 86
- Text Reading Rate: 75

Standard Score

30%
Hartsfield Elementary Progress over five years (Torgesen & King)

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>
</tr>
</thead>
<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>
</tbody>
</table>

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

Average Percentile for entire grade (n=105)

- 1995: 48.9
- 1996: 55.2
- 1997: 61.4
- 1998: 73.5
- 1999: 81.7
H owever

Even the very best prevention programs leave behind 2-6% of the school population

We need to reduce the numbers in order to effectively implement remedial programs
Linking Prevention and Remediation: A 3-Tier Model

Tier 1: Primary Intervention
Enhanced general education classroom instruction for all students.

Tier 2: Secondary Intervention
More intense intervention in general education, usually in small groups.

Tier 3: Tertiary Intervention
Intervention increases in intensity and duration. Child could be considered for special education

http://www.texasreading.org/3tier/
Description: Inadequate response to quality instruction.

This student has responded poorly to the intervention strategy. After an initial adaptation period of five days, the teacher implemented the strategy as designed for the duration of the intervention period. In spite of this assistance, the student's rate of learning throughout the period has been slow. This response-to-instruction pattern indicates that the student's lack of progress is more likely the result of learning difficulties than a lack of effective instruction. Specially designed instruction is likely needed for this student to acquire and retain new information (courtesy Joe Kovaleski)
**Description:** Student responds well to quality instruction.

This student responded well to the intervention strategy. After an initial adaptation period of six days, the teacher implemented the strategy as designed for the duration of the intervention period. With this assistance, the student's rate of learning throughout the period was steady and in a positive direction. This response-to-instruction pattern indicates that the student's difficulties are more likely the result of a lack of effective instruction than a disability. This student does not display a high degree of need for special education because he can demonstrate acquisition and retention with adapted instruction in the regular classroom (courtesy Joe Kovaleski).
Description: **Response to instruction cannot be determined.**

This student has responded poorly during the intervention strategy. However, in spite of support, the intervention was not implemented as planned throughout the intervention period. Consequently, it cannot be determined whether the student's lack of progress are more likely the result of learning difficulties or a lack of effective instruction. Another period of support is needed to assist the teacher to implement the strategy as designed in order to make a conclusion about this issue (courtesy Joe Kovaleski).
Implementation
In order to effectively prevent early reading difficulties, we need to apply two kinds of knowledge (Torgesen, 2008).

From the “science of reading”:
Information about the individual components of instruction and assessment that are most effective in raising literacy levels

From effective schools:
Information about leadership, organizational, and classroom practices that are most effective in raising literacy levels

Understanding, and Motivation to Apply
Barriers to Implementing Effective Assessment and Instructional Practices

• Focusing Too Many Resources on Administering and Collecting Assessment Data Rather Than Ensuring That Staff Use the Data to Inform Instruction

• Viewing Purchased Programs as Silver Bullets Rather Than Aides to Assist Well Prepared Teachers Make Informed Instructional Decisions

• Confusing Awareness Training With Implementation Training

• Using Ineffective Practices to Train Teachers
Barriers to Implementing Effective Assessment and Instructional Practices

• Underestimating the Magnitude of Change
• Taking on Too Many Grade Levels and Schools the First year
• Beginning the Implementation Without a Comprehension Implementation Plan
• Failure to View the Implementation as a Systems Wide Change
Two Important goals for Implementation and Improvement

1. **Increase** the percentage of students reading “at grade level” each year at each grade level from kindergarten through third grade

2. **Decrease** the percentage of students with serious reading difficulties each year at each grade level

Torgesen, 2008
Whether or not we achieve these goals depends on the strength of our instruction to accomplish two things during the year:

All students who begin the year meeting grade level expectations continue to meet grade level expectations at the end of the year—they make expected yearly growth.

All students who begin the year reading below grade level accelerate their development so they make expected yearly growth plus catch-up growth.
When there is great diversity among students in their talent and preparation for learning to read (Torgesen, 2008)...

*little* variation in teaching will usually result in *limited* student learning.
“Growth is directly proportionate to the quality and quantity of instructional time. When we looked at our data student by student, we saw a painful fact with painful clarity. Most students who start behind stay behind. Time-starved reading programs that rely on sudden growth bursts from extraordinary instruction rarely move students from the 5th-30th percentiles up to grade level.” P. 48

“Catch-up growth is driven primarily by proportional increases in direct instructional time. Catch-up growth is so difficult to achieve that it can be the product only of quality instruction in great quantity.” From David Montague
”By the fifth year, I was convinced high performance reading was about more time and better use of that time. Students who were behind needed more direct instruction. Some of them started getting 60 to 90 minutes extra each day for a total of 180 to 210 minutes a day. We spent that time on the sub-skills they hadn’t mastered.”

“For most of Kennewick’s high performance elementary schools, increasing the amount of time spent on direct reading instruction was an intuitive decision. They tried more time. It worked, and they kept on doing it….Principals and many teachers at these schools saw the direct connection between increasing instructional time and increasing reading growth. Students who were a little behind needed a little more instructional time. Students who were a lot behind needed a lot more time.” P. 38.
Technology Transforming Education

Comprehension

Vocabulary

Phonics

Fluency

Phonemic Awareness
First Things First

- Learn the Innovation
- Learn How to Implement With Fidelity
- Do it Long Enough to Learn the Nuances of its Applications
- Then Work on Improvements
- There is no Successful Innovation in a Box – Both the Innovation and the Implementation Plan Must be Customized
SOME IMPLEMENTATION  Ps & Qs

- Typical Improvements
  - Assessment Calendar
  - Data Analysis Practices
  - Grouping Practices
  - Timing of Innovation in the Mater Schedule
  - Model for Innovation Delivery
PROFESSIONAL DEVELOPMENT

Creating Effective Schools by Preparing Effective Leaders
A Leader Must Ensure the Following:

- Evidence-Based Curriculum
- Continuous Evaluation and Accountability
- Challenging Goals for Both Students and Teachers
- Opportunity to Learn and Sufficient Time for Instruction
- Parental Involvement
- Safe and Orderly Environment
- Collegiality and Collaboration
EFFECTIVE LITERACY INSTRUCTION REQUIRES

- Ability to Customize Instruction for Individual Students
- Ability to Manage and Organize the Classroom
- Ability to Motivate and Engage Students
- A Positive Attitude Towards Teaching
- Ability to Implement and Sustain Programs
EFFECTIVE LITERACY INSTRUCTION REQUIRES

• Deep Knowledge of Content and Instructional Skills
• Ability to Plan and Set Specific Goals and Objectives
• Knowledge of Scientifically-Based Curriculum Design
• Knowledge of Research-Based Instructional Methods
• Knowledge of Formative and Summative Assessment
WHY EFFECTIVE LEADERS & TEACHERS ARE ESSENTIAL

Marzano, et al. 2003

Average Principal
School & Average Teacher

Least Effective Principal & Least Effective Teacher

Most Effective Principal & Least Effective Teacher

Least Effective Principal & Most Effective Teacher

Most Effective Principal & Average Teacher

Most Effective Principal & Most Effective Teacher

50th percentile

50% 3% 37% 63% 78% 96%
IMPROVING READING AND CHANGING BRAINS
A Theoretical Model for the Brain Circuit for Reading (Component Processes)

Phonological processing:
correspondence between letter and sound

Phonological processing: articulatory mapping

Graphemic analysis

Relay station; Cross-modality integration
Strong activation pattern

Weak activation pattern

(Fletcher et al)
Decreased activity in right hemisphere

Increased activity in left hemisphere

(Fletcher et al)
Decreased activity in right hemisphere

Increased activity in left hemisphere

(Fletcher et al)
Why Do Some Children Have Difficulties Learning to Read? (panicolaou, Fletcher, et. al)

Student #1: At risk

Student #31: Not at risk
Measuring the Effects of Scientifically-Based Instruction

Students Name: [Name]

Subject Area: Reading

Number of words read correctly and incorrectly:

- **Correct**: Black line
- **Incorrect**: Red line
- **Goal**: Blue line

Dates:
- M 9/9
- M 9/16
- M 9/23
- M 9/30
- M 10/7
- M 10/14
- M 10/21
- M 10/28
- M 11/4
- M 11/11
- M 11/18

Key:
- **Begin Using Reinforcers**
- **New Reading Curriculum**
Why Do Some Children Have Difficulties Learning to Read?  

Papanicolaou, et. al

Kindergarten

Same Student one year later

1st Grade
“We are not where we want to be, we are not where we are going to be, but we are not where we were.”

Rosa Parks
Thank you!

For more information:
www.ReidLyon.com

Email:
Reading4all@tx.rr.com

2/6/09