Preventing and Remediating Reading Difficulties: National Goals and Current Accomplishments

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Florida State University and Florida Center for Reading Research

International Dyslexia Association, November, 2007
Go to Google and type in “The Nation’s Report Card”
Growth in Average Score at 4th Grade

Growth in Average Score at 8th Grade
Growth in Average Score at 4th Grade by SES group
Growth in Average Score at 8th Grade by SES group
**Description by performance levels**

**Basic Level** - Should demonstrate an understanding of the overall meaning of what they read. Should be able to make relatively obvious connections between the text and their own experiences and extend the ideas in the text by making simple inferences.

**Proficient Level** - should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information. Should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connections to their own experiences. The connection between the text and what the student infers should be clear.

**Advanced Level** - should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices. Should be able to judge text critically and, in general, to give thorough answers that indicate careful thought.

Improvements at 4th Grade

Map showing improvements at 4th grade across the United States.

Improvements at 8th Grade
4th Grade –
Two important goals for 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.

Our most important measures of success in doing this assess student performance on reading comprehension measures at the end of the year—particularly at end of third grade.
We know that many schools must provide particularly strong instruction, because so many of their students are not strongly prepared for learning to read when they come to school.

Most poor children:
1. Are delayed in the development of phonemic awareness
2. Have had less exposure to print and the alphabet
3. Have vocabularies that are usually less well developed – ½ size in poor 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
Relationship of “school challenge” to student performance

587 RF schools in Florida

Level of School Challenge based on % of students qualifying for FR lunch

% of 1-3 Students Performing At Grade Level at the End of Year

Increasing Challenge

Decreasing Performance

Average % at GL

1  2  3  4  5  6

63  75  82  86  96  87

72  66  61  58  53  51

6 7 8 9 10

0 10 20 30 40 50 60 70 80 90 100

% of 1-3 Students Performing At Grade Level at the End of Year

AverAge % at GL

587 RF schools in Florida
The Adult Learning and Performance Gap

% of 1-3 Students Performing At Grade Level at the End of Year

Level of School Challenge based on % of students qualifying for FR lunch

Approx. 20%

Approx. 27%
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.
Whether or not we achieve these goals depends on the strength of our instruction to do two things during the year:

- **Insuring all students make expected yearly growth**

  Strong core reading instruction for all students
  
  Enough time spent to meet the needs of many students who do not typically receive powerful support at home
  
  Enough quality so that the increased instructional time is spent effectively

  \[\text{Time } \times \text{ quality} = \text{ growth}\]
Whether or not we achieve these goals depends on the strength of our instruction to do two things during the year:

1. Insuring students who are behind make expected yearly growth plus catch-up growth.
2. Effective differentiated instruction by classroom teacher.
3. Effective school-level systems and resources to provide additional intensive intervention in small enough groups for enough time, and with enough skill.
In order to effectively prevent early reading difficulties, we need to apply two kinds of knowledge.

**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
Lessons learned from the Kennewick, Washington school district:

Located in southeastern Washington

Has about 15,000 students – 13 elementary schools, four middle schools, and 3 high schools

25% of students are ethnic minorities, and 48% elementary school students qualify for free or reduced price lunch
Lessons learned from the Kennewick, Washington school district:

In 1995, the school board in Kennewick challenged the elementary schools to have 90% of their students at grade level in reading by the end of third grade – within 3 years.

The primary responsibility for accomplishing this was assigned to the school principals.
Lessons learned from the Kennewick, Washington school district:

From David Montague, a principal:

“We thought the board and the superintendent were crazy...I saw in the White Paper that elementary principals were responsible, and said ‘Why don’t they come down to our building and see the kids that come to our school?’ I mean, our kindergarten kids seem to enter school every year with lower skills...”
The District passed a bond that provided a district reading teacher for each school, and began to hold public meetings at a different elementary school every two weeks.

“After that, the whining died down. The goal started to grow legs.... Principals are messengers. When you’re in the message business, it doesn’t help to criticize the message. It drives a wedge. It empowers those who don’t want to change. Since we’re responsible for implementation, it makes no sense to send a mixed message. Principals cannot play ‘loyal opposition’ harping against accountability and at the same time provide effective leadership for growth”
At the schools...

“We began to have serious staff meetings...we began ....looking at the test data to see how far behind some of our kids were. It was the first time Washington had ever had such precise data. In the fall of 1995, 23% of our 3rd graders were reading at second grade level and 41% of our 3rd graders were reading at a kindergarten or 1st grade level.
**Washington Elementary School**

**Growth in % of 3rd grade students meeting grade level standards**

<table>
<thead>
<tr>
<th>School Year</th>
<th>Percent at Grade level</th>
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<tr>
<td>95</td>
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Working harder and more effectively at 3rd grade

Baseline year
From the Principal:

“By the 3rd year, we had exhausted our work-harder-at-third-grade strategy...More of the catch-up gain had to be made at second and first grade. Our first- and second-grade teachers realized that they had to become more accountable for their students’ learning. Even our kindergarten teachers, who had spent most of their class time on social activities, began the transition to teaching phonemic awareness along with letter and sound recognition.”
Washington Elementary School

Growth in % of 3rd grade students meeting grade level standards

<table>
<thead>
<tr>
<th>School Year</th>
<th>95</th>
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Baseline year

Began testing in 2nd grade and focusing on earlier improvement

Working harder and more effectively at 3rd grade

Result of improvement at both 2nd and 3rd Grade

Began providing intensive interventions in the afternoon to many students
Washington Elementary School

School Characteristics
55% Free/reduced lunch
28% Minority
85% Stability

Teaching Staff
2 half-day kindergarten teachers
3 classroom teachers each in 1-5
1 District Reading Specialist
3 Title I Teachers
1.5 Resource room/special ed teachers
1 PE teacher
1 librarian, 1 Librarian secretary
3 Specials teachers
9 paraprofessionals
Washington Elementary School

How they get additional instructional power in first grade

During the Morning Reading Block
Small group reading during 1<sup>st</sup> hour of the day

It puts 13 adults with 75 students during the first hour in first grade
Struggling students get 1:3 with most skilled instructor
Advanced students get 1:7 ratios with paras and others

In the afternoon
Many students get additional small group or 1:1 instruction time as interventions
The reading block for 3 first grade classrooms

1st hour (8:45-9:45)

Small group instruction
3 classroom teachers
1 District Reading Teacher
2 Title I teachers
Specials teacher
PE teacher
6 paraprofessionals
The bell rings at 8:35 a.m. and a new school day begins in Stephanie Walton’s first-grade classroom.

After the flag salute and lunch count, her 22 students swiftly break into six small groups for the first hour of the morning reading block.

Three students go to the district reading specialist, three to the Title 1 teacher, while four head next door to learn with other students of their ability level. The teacher in the neighboring classroom sends over three of her students, and they take their places with three of Stephanie’s students.

In the back of the room, seven students gather for direct instruction with a para-educator who follows Stephanie’s lesson plan as is within her listening range.

In the hall, two students join a small reading group with the P.E. teacher.
The reading block for 3 first grade classrooms

1st hour (8:45-9:45)
Small group instruction
3 classroom teachers
1 District Reading Teacher
2 Title I teachers
Specials teacher
PE teacher
6 paraprofessionals

2nd hour (9:45-10:45)
Whole group instruction
Its 9:43. Glancing up, Stephanie smiles at the students who are returning from other classes. “Your options are cards or workbook.” They know exactly what to do, and get right to work. She continues teaching until the rest of the students are back.

At 9:47 Stephanie asks the entire class to come to the carpet area in the front of the room. In less than two minutes they are settled in the story area gazing at the cover of *Things that Go*.

In 25 minutes, they use the same thematic material to do five different exercises to build vocabulary and comprehension.

Then the students move to their seats and spend the next 10 minutes on two workbook exercises reinforcing the meaning of five position words they just learned. They spend the rest of whole group time spelling on white boards.
Ten years ago we would have seen three reading groups with seven students each. Stephanie would have been the only adult, except on the days when she was able to get a mom to volunteer to help with the art project that accompanied the reading unit.

Stephanie would have spent 20 minutes providing direct instruction to each group, while the other two groups did seat work or read silently.

The 60-minute reading block would have predominantly focused on comprehension utilizing whole-language techniques. Often the worksheets would be from yesterday’s social studies, math, or health lesson, attempting to integrate reading instruction with other subjects.
The reading block for 3 first grade classrooms

1st hour (8:45-9:45) 2nd hour (9:45-10:45)
Small group instruction Whole group instruction
3 classroom teachers
1 District Reading Teacher
2 Title I teachers
Specials teacher
PE teacher
6 paraprofessionals

Also, during the second hour, paras, Title 1, and others work in small groups with 2nd-5th grades.

In the afternoon, many students are provided an additional 40-90 minutes of intervention.
Targeted Accelerated Growth

The TAG Loop

1. Diagnostic Testing
2. Proportional increases in direct instructional time
3. Teaching to the deficient sub-skill
4. Retesting to be sure the skill has been learned
From David Motague

”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.
“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.”
Teacher quality $\times$ time = growth

“Quantity of instructional time can be doubled or tripled in a semester. Quality of instructional time cannot. Improving quality occurs over extended periods of time, at different rates for different teachers in the same school, as a constant process of arduous, intelligent labor.

Teacher quality (1) $\times$ time (1) = growth (1)
Teacher quality (1) $\times$ time (2) = growth (2)
Teacher quality (1) $\times$ time (3) = growth (3)
Teacher quality x time = growth

“This is why the primary and immediate strategy for catch-up growth is proportional increase in direct instructional time.

Catch-up growth rarely occurs unless principals and teachers have good data, know each student’s learning needs, and schedule proportional increases in direct instructional time.”
<table>
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<tr>
<th>School</th>
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<th>% at Grade Level, 2003</th>
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<th>1st Grade Interventions</th>
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To Order:

Do advanced search in Google for “Annual Growth for all students”

Click on The National Children’s Foundation

It is listed as one of the books there.
Some important questions for reflection

What are the most important ways your school, or classroom is different now than three years ago?

If large numbers of your students continue to struggle to make expected yearly growth, have you considered increasing the length of the reading block?

Do students who struggle receive time for intervention instruction that is proportional to their difficulties?

Do some students receive as much as 60-90 minutes of intervention every day?
It matters little what else they learn in elementary school if they do not learn to read at grade level.

Some free resources that may help:

To download up to 240 independent student learning activities for K-1 classrooms, and up to 170 activities for students in grades 2-3, as well as activities for 4-5, go to FCRR website (www.fcrr.org). Select “For teachers” look for listed center activities.

There is also a teacher resource manual providing directions for classroom management during small group instruction, and approximately 70 minutes of video training. It is listed under “professional development” in the teacher section.
Download at:

Or, just go to the FCRR website ([www.fcrr.org](http://www.fcrr.org)) select the “for teachers” section, and it is listed there
Some important new research on differentiated instruction

<table>
<thead>
<tr>
<th>Instruction Managed by</th>
<th>Code</th>
<th>Meaning</th>
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<td>Student</td>
<td>Independent worksheets or small group activities - PA, Phonics</td>
<td>Independent reading, small group activities, vocab, comp.</td>
</tr>
<tr>
<td>Teacher</td>
<td>Small group or whole class instruction in PA, Phonics</td>
<td>Teacher led discussion, question asking, vocab.</td>
</tr>
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</table>
Basic Findings:

Children who began first grade with below-average letter-word reading skills demonstrated greater improvement with greater amounts of time in explicit, teacher-managed, code-focused instruction.

Children with above-average vocabulary and word-reading scores at the start of the school year made greater gains in reading skill when they spent more time throughout the year in child-managed meaning-focused instruction (such as independent reading).

Classrooms that differentiated instruction appropriately produced higher overall reading growth.
Guidance on essential procedures for implementing effective interventions with young children

Download at www.fcrr.org. go to the section for administrators, and then to the section on Interventions for struggling readers
Teaching Students to Read in Elementary School: A Guide for Principals

Download at www.fcrr.org. go to the section for administrators
Switching attention to interventions for older struggling readers....
Study of struggling readers in 3rd and 5th grade:

We evaluated 4 commercially available intervention methods that are widely used to remediate difficulties in late elementary school.

1. Corrective Reading
2. Wilson Reading System
3. Spell Read P.A.T.
4. Failure Free Reading

- Used Word-level instructional components only
- Word-level plus comprehension and vocabulary
Random assignment procedures

Intervention methods were randomly assigned among 50 participating schools.

Within participating schools, students were randomly assigned to the experimental or control group.

The control students received whatever instruction or interventions they would have received had the study not been implemented.

It was a mix of whole class and small group instruction.
The students participating in the study

3rd and 5th graders, nominated by teachers and selected by screening measures (1576)

Below the 30th percentile on a combined measure of word reading efficiency, and above the 5th percentile in broad verbal ability (PPVT) (1,042 – 772 gave permission to participate)

45 % FR lunch, 27% Min., 33% had L.D. or other school diagnosis

Average reading levels – Phonemic decoding – 32nd %
Oral reading fluency – 17th %
Reading Comprehension – 23rd %
Recruitment and Training of Teachers

Teachers were nominated by principal and chosen through interview.
Came from regular classroom, special education, Title 1 resource.
Receive 5 days of direct training (approx. 30 hours) before school started.
Had 8 weeks of supervised practice with 4th grade students while study participants were being selected and pre-tested.
Received monthly on-site supervision and consultation with instructional experts.
Total of approximately 70 hours of professional development on method used.
Delivery of Instruction

All children were taught in small groups of 3

Instructional sessions approx. 50 minutes – goal was
to provide 100 hours of instruction-average was 93
(3rd) and 88 (5th) hrs.

- 80 or more – 92.3%
- 40 to 80 -- 4.5%
- Less than 40 – 3.2%

Instruction was provided 5 days a week

Instruction was provided outside of the regular
classroom
Time by activity analysis

Minutes per session devoted to instruction on Word level vs. comprehension/vocabulary

- Word level
- Comp/Voc

Failure Free Spell Read Wilson Corrective

Minutes per session
Outcomes from approximately 90 Hours of Small Group Intervention-3rd Grade

- **Phonemic Decoding**
  - Control: 92.6
  - Word Level: 99.4
  - Failure Free: 92.6

- **Word Reading Accuracy**
  - Control: 88.7
  - Word Level: 90.7
  - Failure Free: 90.7

- **Reading Comp.**
  - Control: 86.2
  - Word Level: 87.5
  - Failure Free: 87.5
Outcomes from approximately 90 Hours of Small Group Intervention-5th Grade

- **Phonemic Decoding**:
  - Control: 93.1
  - Word Level: 99.4
  - Failure Free: 93.1

- **Word Reading Accuracy**:
  - Control: 88.7
  - Word Level: 92.4
  - Failure Free: 88.7

- **Reading Comp.**:
  - Control: 91.5
  - Word Level: 92.6
  - Failure Free: 91.5
Outcomes relevant to purposes of this presentation

The word level interventions in 3rd grade produced significant impacts on phonemic decoding, reading accuracy, and comprehension—significant “gap closing” occurred only for phonemic decoding.

The only significant impact for fifth grade was on phonemic decoding, large “gap closing” there, but not much for word reading accuracy and comprehension.

There was no significant impact of the interventions at 3rd or 5th grade on the Pennsylvania System of School Assessment (PSSA).
Study of struggling readers in 9th grade

Students were selected because they performed below grade level (Levels 1 and 2) on 8th grade FCAT.

592 students were formed into quartets within 5 high schools on basis of 8th grade FCAT. Within quartets in each school, students randomly assigned to one of three treatments or a control treatment.

Average reading levels – Phonemic decoding – 45th %
Oral reading fluency – 35th %
Reading Comprehension – 21st %

All groups received 90 min. instruction per day in groups of 20, 5 days a week for the school year.

Post-testing on FCAT took place in March.
Study of struggling readers in 9th grade

Students randomly assigned to one of four groups:

Control - instruction as usual - reading, discussion, written assignments

Read 180 – technology based intervention - individualized instruction in word level, comprehension, and vocabulary

Reach – scripted instruction in word level, comprehension, critical reading and writing

RISE (locally developed intervention involving lots of reading with leveled text, discussion, vocabulary, responsive help with decoding)
Initial outcomes from Seminole County Study

Teachers had a range of experience

All intervention teachers received PD prior to beginning, and periodic visits through the year

Outcomes from the interventions were assessed in terms of change in the Developmental Scale Score on the Florida Comprehensive Assessment Test.
9th Grade Students

Performance Level on Previous Year’s FCAT

Change in Developmental Score on FCAT

Level 1
- Control: 97
- Read 180: 116
- Reach: 147
- Rise: 150

Level 2
- Control: 108
- Read 180: 100
- Reach: 99
- Rise: 103

Legend:
- Black: Control
- Blue: Read 180
- Green: Reach
- Red: Rise
9th Grade Students

Level 1 intervention students
  Gap to Level 2 in 8th grade = 128 DSS points
  Gap to Level 2 in 9th grade = 66 DSS points

Level 2 intervention students
  Gap to grade level in 8th grade = 102 DSS points
  Gap to grade level in 9th grade = 91 DSS points
Some resources recently available for adolescent reading instruction
Five specific recommendations for content-area literacy instruction

Two broad recommendations for struggling readers

Specific recommendations for English Language Learners

Go to www.centeroninstruction.org click on reading
Interventions for adolescent struggling readers: A meta-analysis with Implications for Practice

Go to

www.centeroninstruction.org

click on reading
Questions or Discussion