

Interventions for Students with Reading Disabilities: Requirements at the School and Classroom Level

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The basic problem that brings us together...

Children are enormously diverse in their talent and preparation for learning to read

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 are the most important ways children are diverse-when it comes to learning to read?

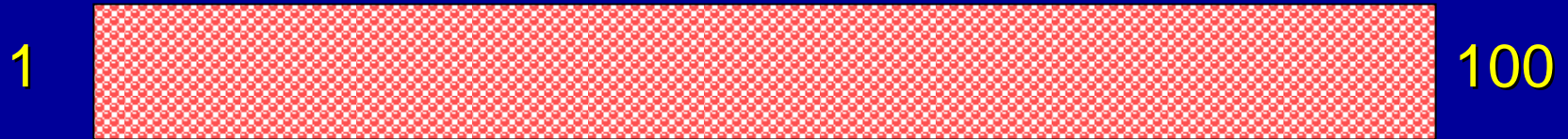
1. They are diverse in their talent and their preparation for learning to read words accurately and fluently

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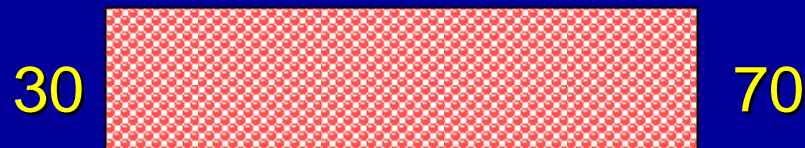
1. They are diverse in their talent and their preparation for learning to read words accurately and fluently
2. They are diverse in their oral language knowledge and abilities-vocabulary and world knowledge
3. They are diverse in their abilities to manage their learning behaviors and their motivation to apply them selves to learning to read

The challenge of diversity in talent and preparation for learning to read

Diversity in talent and preparation

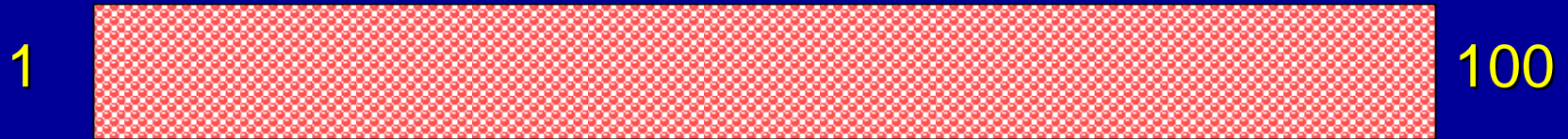


Diversity of educational response



The challenge of diversity in talent and preparation for learning to read

Diversity in talent and preparation



Diversity of educational response



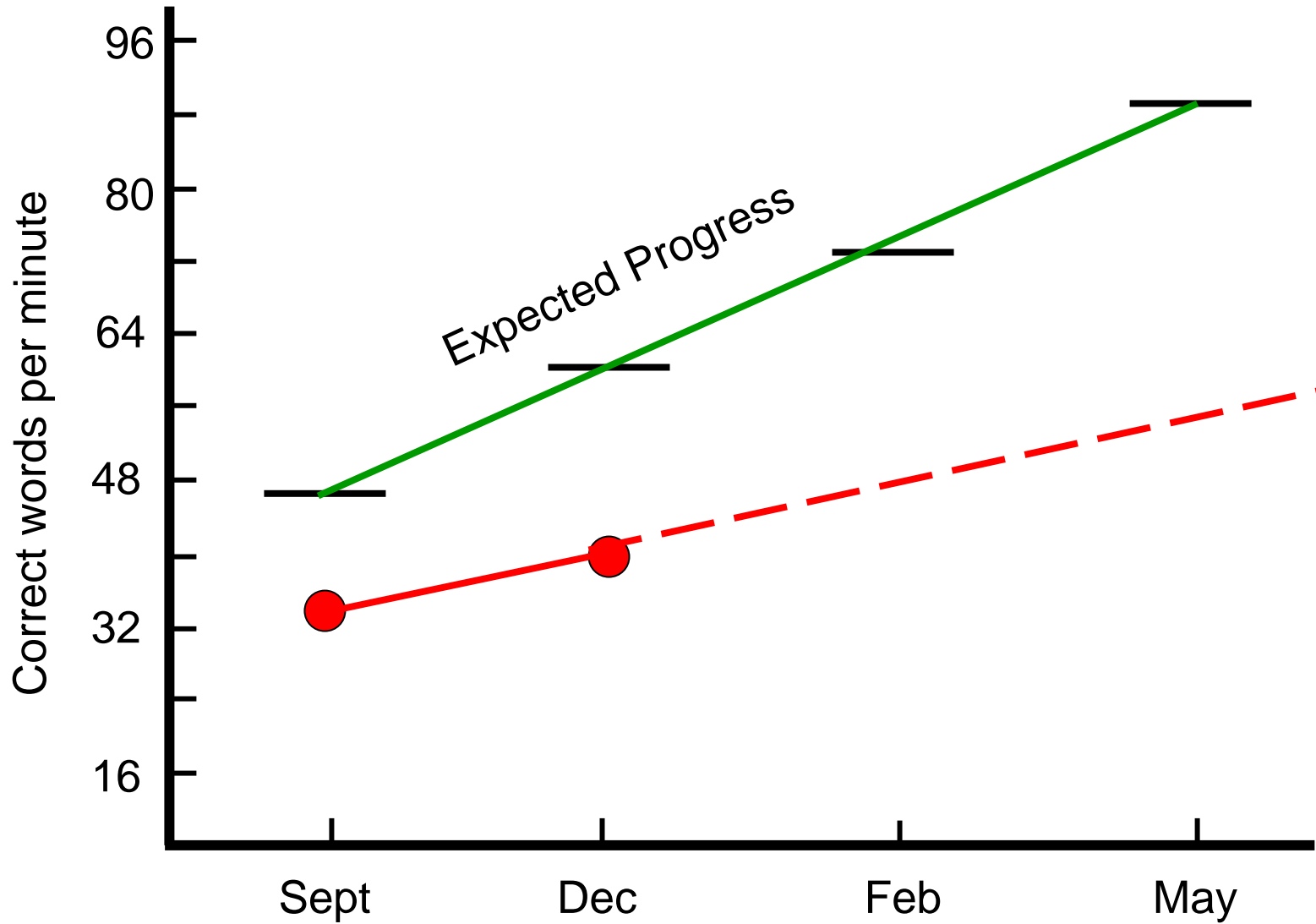
What are the key ingredients at the classroom and school level needed to prevent reading difficulties in young children?

A model for preventing reading failure in grades K-3: The big Ideas

1. Increase the quality, consistency, and reach of instruction in every K-3 classroom
2. Conduct timely and valid assessments of reading growth to identify struggling readers
3. Provide more intensive interventions to “catch up” the struggling readers

The prevention of reading difficulties is a school-level challenge

Screening or Progress monitoring assessment in 2nd Grade



TIER II Interventions



Tier II is almost always given in small groups

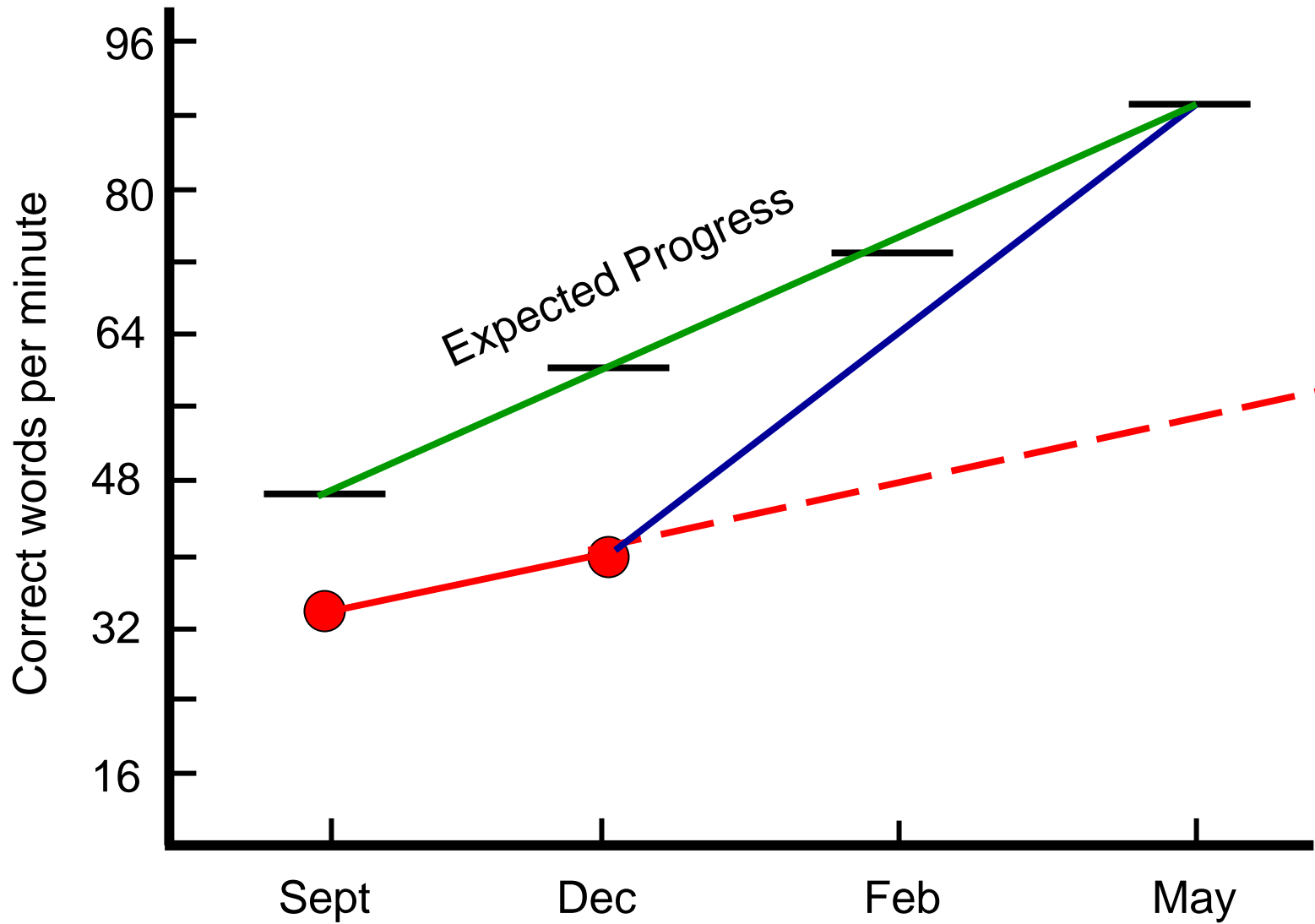
Tier II should always increase the intensity of instruction

The Logic of Instructional Intensity

If a child performs below grade level targets on a screening or progress monitoring measure, they are already substantially behind in required development.

To achieve the grade level standard by the end of the year, these students must learn critical skills faster than their grade level classmates

Screening or Progress monitoring assessment



The Logic of Instructional Intensity

If a child performs below grade level targets on a screening or progress monitoring measure, they are already substantially behind in required development.

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The most direct way to increase learning rate is by increasing the number of positive, or successful, instructional interactions (pii) per school day.

What is a Positive Instructional Interaction (Pii)

Teacher explains a concept clearly at the right level, and the child is actually attending-processing the information

Teacher models a correct response and the child attends to the model

Teacher corrects students error in a way that increases the chance for the student to respond correctly the next time

Teacher reinforces a correct response in way that increases probability child will respond correctly on future occasions

The Goal of Increased Instructional Intensity

“School based preventive efforts should be engineered to maintain growth in critical word reading skills at roughly normal levels throughout the elementary school period”

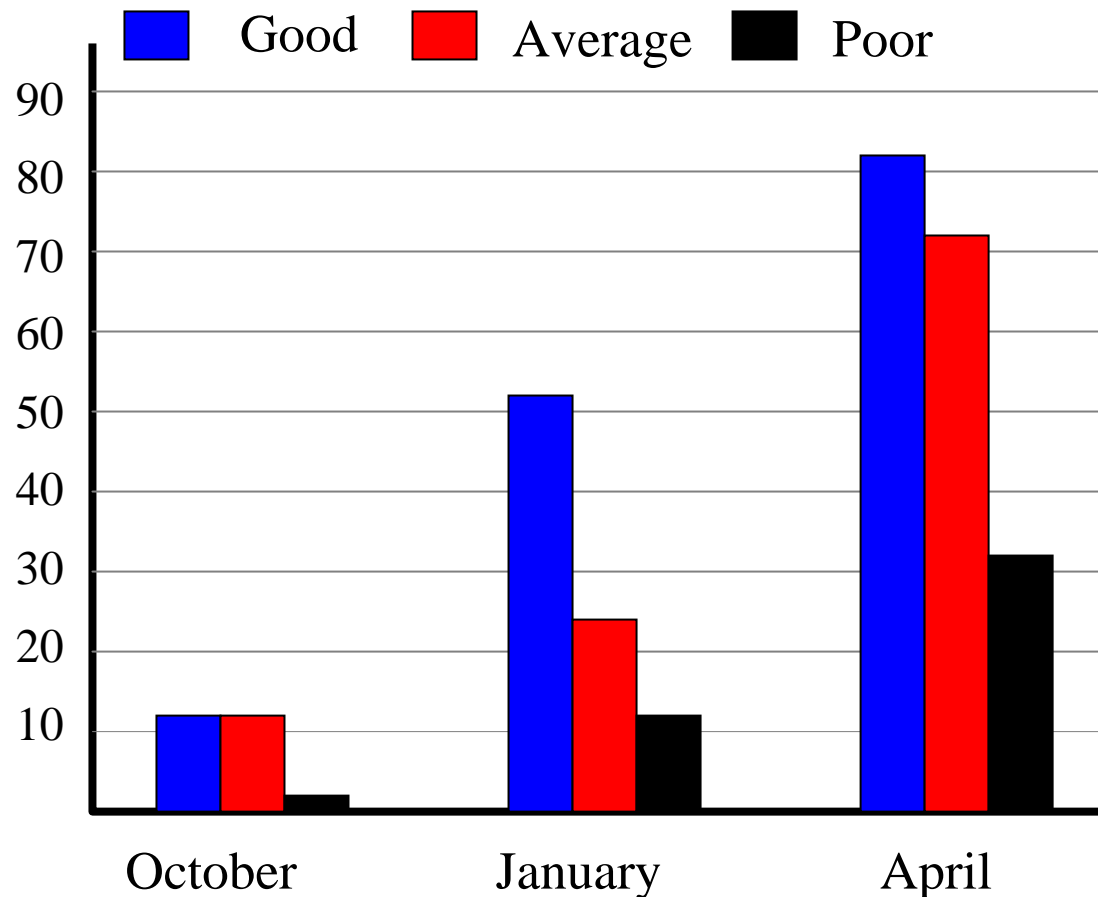
(Torgesen, 1998)

There are serious consequences that follow from getting a slow start in learning to read....

Poor readers get less reading practice from the beginning of first grade

Mean words read by each child in reading sessions at three points in the year

Biemiller, 1977-78



TIER II Interventions



Tier II is almost always given in small groups

Tier II should always increase the intensity of instruction

Tier II must be precisely targeted at the right level on student's most critical learning needs

Tier II must increase the explicitness of instruction

Explicit Instruction

- Nothing is left to chance; all skills are taught directly..
- Student practice activities are carefully guided with “instructive” error correction
- Practice activities are carefully engineered to produce mastery
- Development of critical skills is carefully monitored-instruction is focused on mastery.

An Example of an Effective Intervention

Design of Study

1. Most “at risk” first graders from five elementary school—
PPVT above 70
2. Instruction provided in 45 min. sessions every day from
October through May in groups of 3 or 5 by
experienced teachers or well-trained paraprofessionals
3. Used a structured (scripted) reading program that
contained instruction and practice in phonemic
awareness, phonics, fluency, and comprehension
4. Used a number of methods to achieve fidelity of
implementation
 - 3 days of initial training
 - Weekly supervisory visits
 - Monthly inservice (3 hours)



Work on phonemic awareness



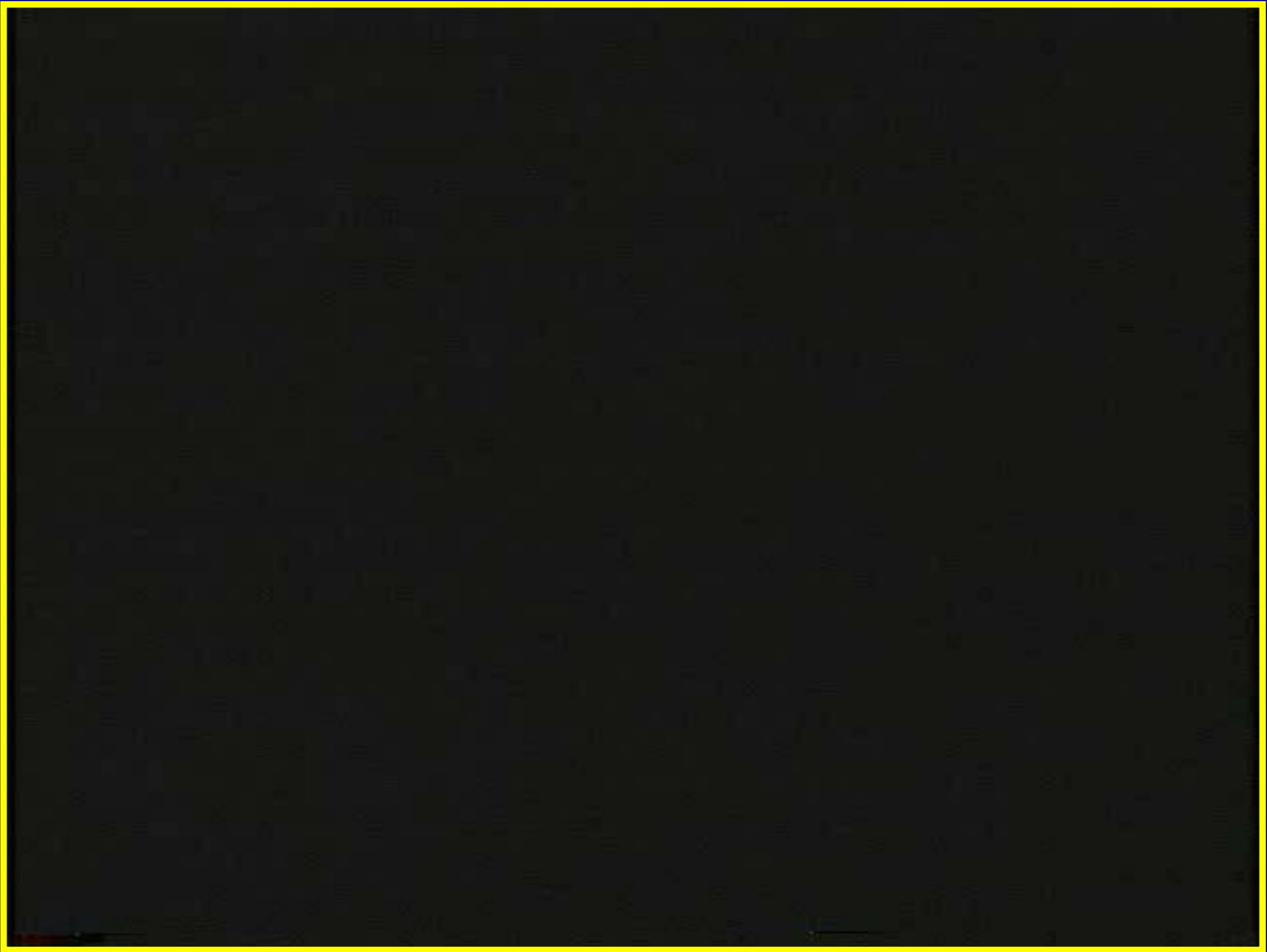
Blending sounds into words



Directly building sight recognition of high utility words



Reading text...



Comprehension-story grammar...



Two types of scaffolding....

Programmatic Scaffolding

Instructional sequences organized so that students have the knowledge and skills they need to respond before they are asked to respond

Micro level within lessons

Modeling of correct responses

Complete and clear explanations

Embedded in the instructional sequence

Oral blending skills before blending printed words

Awareness of phonemes before learning how they are represented in print

Grapheme-phoneme knowledge before decoding

Responsive Scaffolding

Teacher follows an error with a question or comment that directs the child to do the thinking necessary to correct the response – a Pii

On video

Teacher notices error – stretches word “slim”

Asks question—what’s the last sound you hear in slim?

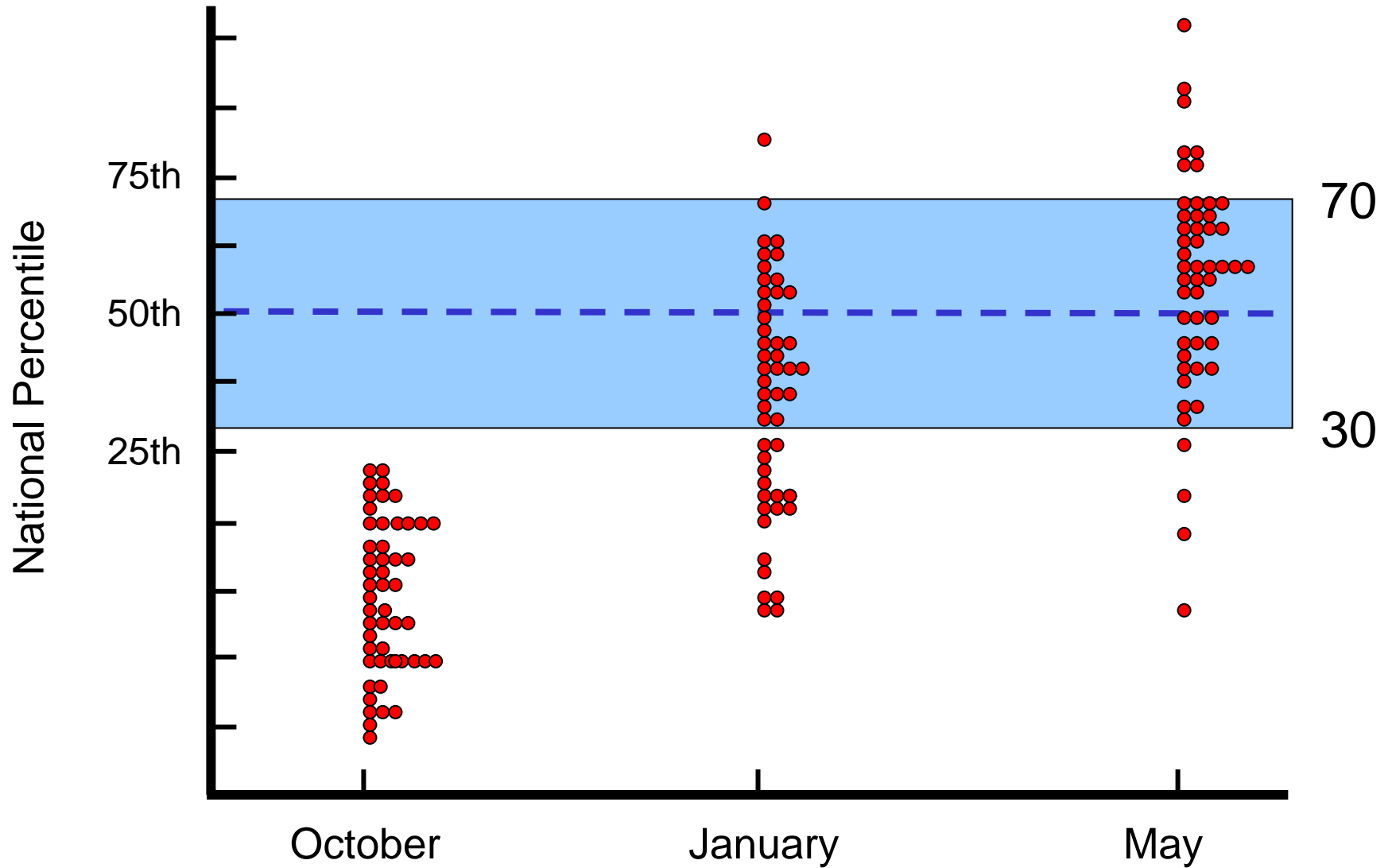
Child responds -- /m/

Teacher asks, pointing to spelling, “does that match?”

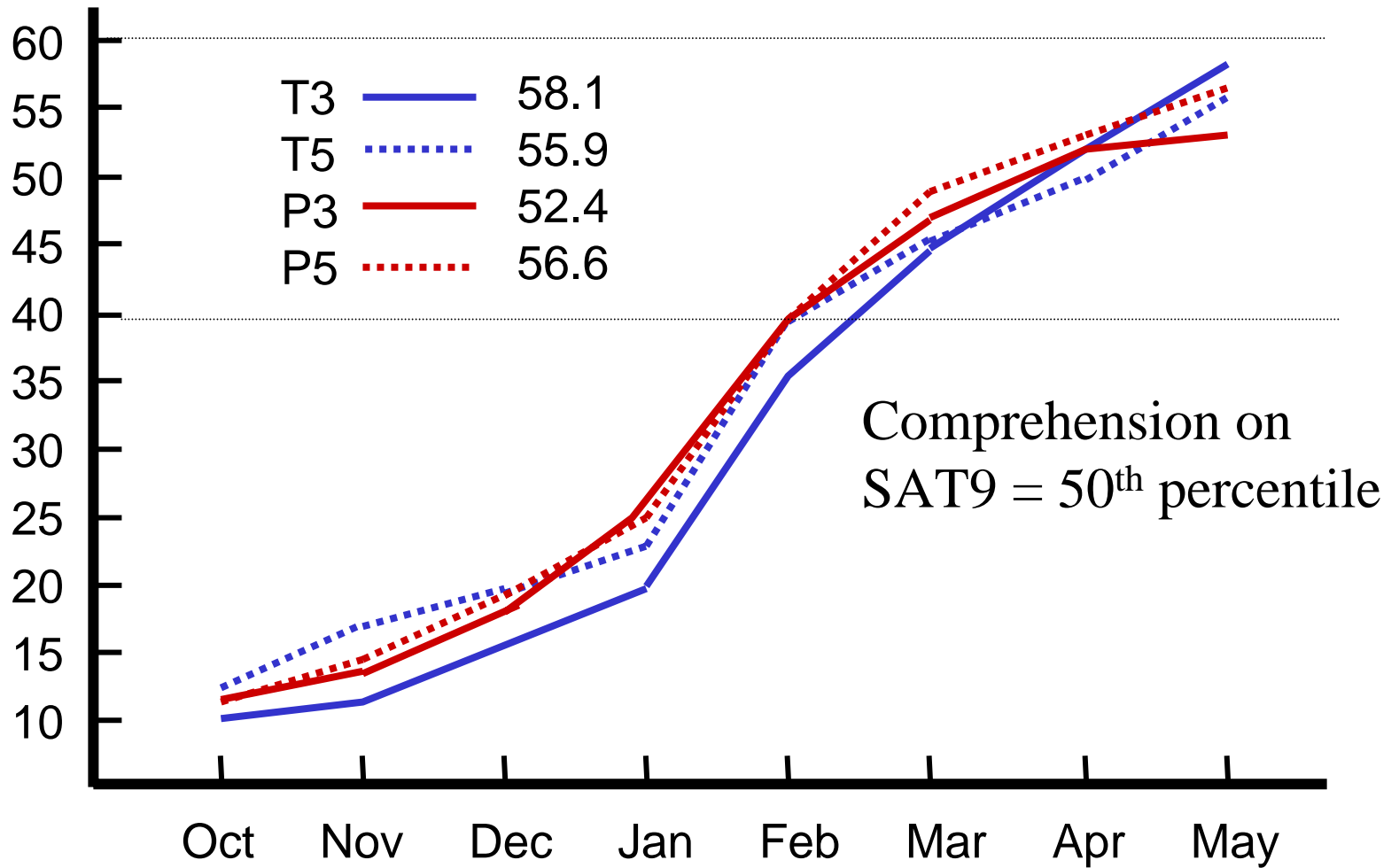


Two types of scaffolding....

Growth in Word Reading Ability



Growth in Correct Words Per Minute on First Grade Level Passages



Tier II interventions across the grade levels

Kindergarten – 20 minutes, small group, push in

First grade – 30-45 minutes, small group, push in or additional instruction outside the block

One important way to enhance the power of instruction during the 90 minute block is to have some of the small group instruction provided by another teacher or paraprofessional

Classroom
teacher and
group of 7

Resource
teacher and
group of 4

Independent
Learning
Activity (5)

Independent
Learning
Activity (6)

Tier II interventions across the grade levels

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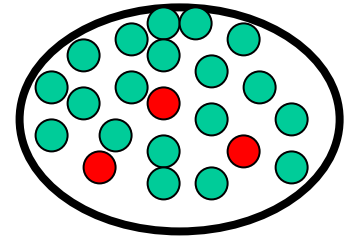
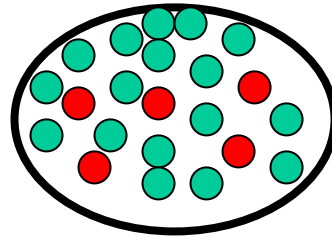
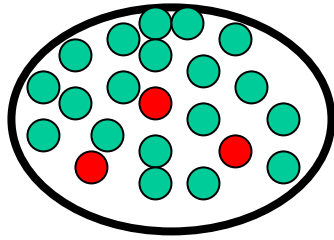
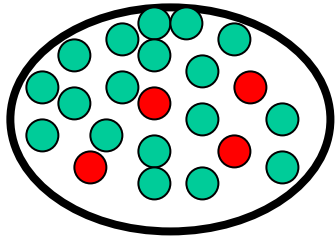
First grade – 30-45 minutes, small group, push in or additional instruction outside the block

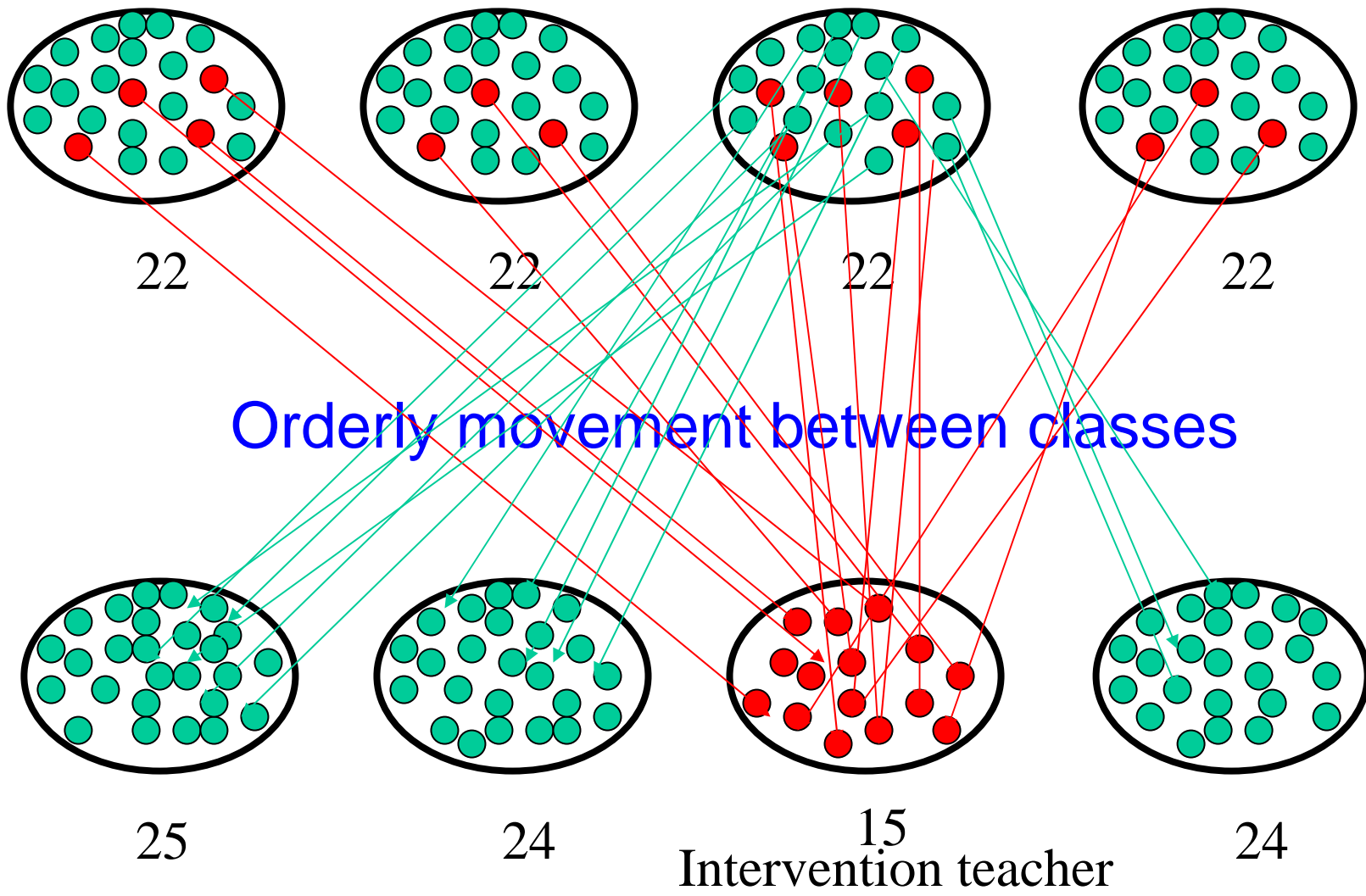
2-3 grades – 30-45 minutes , small group, push in plus another 30-45 minutes outside of reading block

or

2nd and 3rd Grade – an “intervention” core, smaller class for 90 minutes—”walk and read”

Four Second Grade Classes





Possible schedule for a 90 minute intervention class in 2nd and 3rd grade

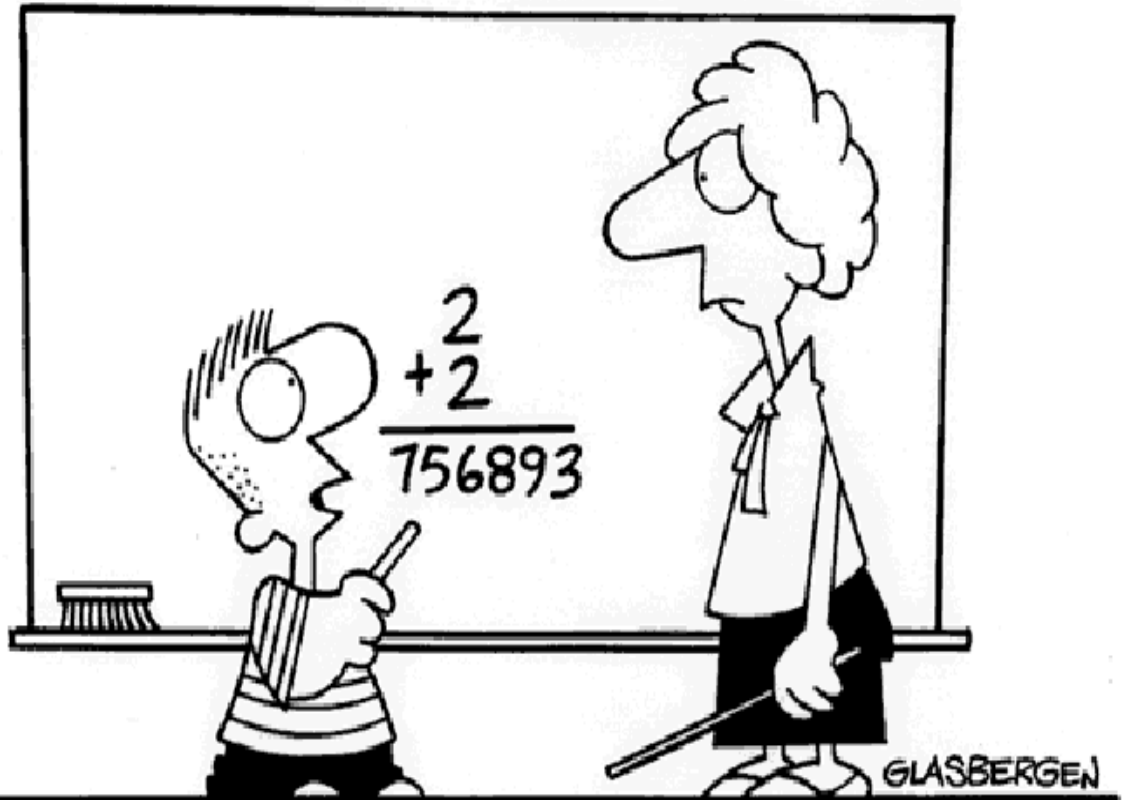
2 teachers -- 30 minute rotations

Group of 5 – decoding and fluency- low, mid, hi

Group of 5 – fluency, comp, vocab – low, mid, hi

Group of 5 – technology-learning center

As we
work to
solve this
problem,
we will
need to try
some new
things

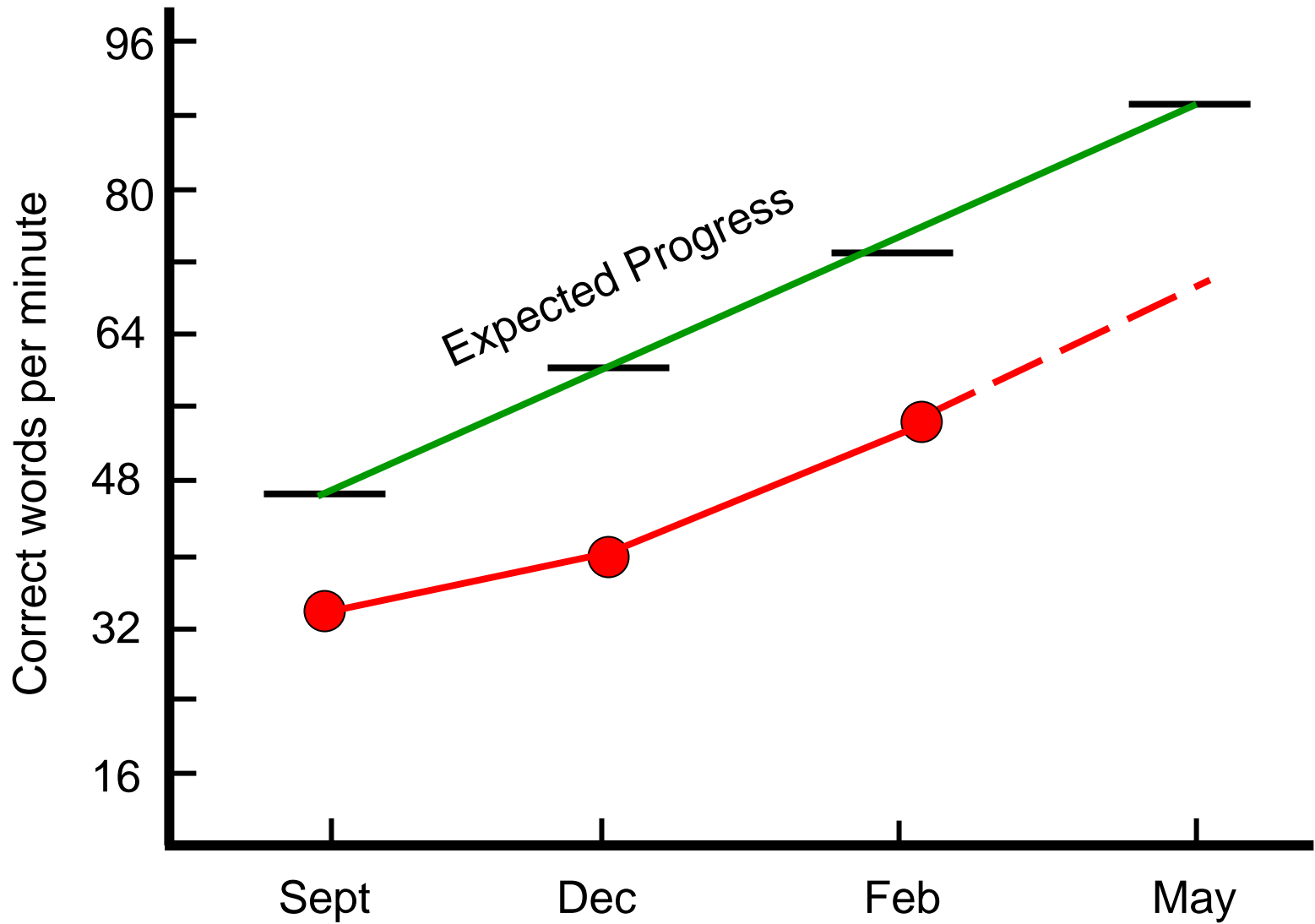


**“In an increasingly complex world,
sometimes old questions require new answers.”**

How can immediate, intensive interventions be scheduled and delivered?

1. Delivered by regular classroom teacher during the “uninterrupted reading period”
2. Delivered by additional resource personnel during the “uninterrupted reading period”, or at other times during day
3. Delivered delivered by classroom and resource personnel during after school or before school programs
4. Delivered by well-trained and supervised paraprofessionals during the “uninterrupted reading period” or other times
5. Delivered by computers throughout the day

Screening or Progress monitoring assessment



TIER III: Intensive intervention



Tier III is intensive, strategic, 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.

What are the critical elements of effective interventions?

Ways that instruction must be made more powerful for students “at-risk” for reading difficulties.

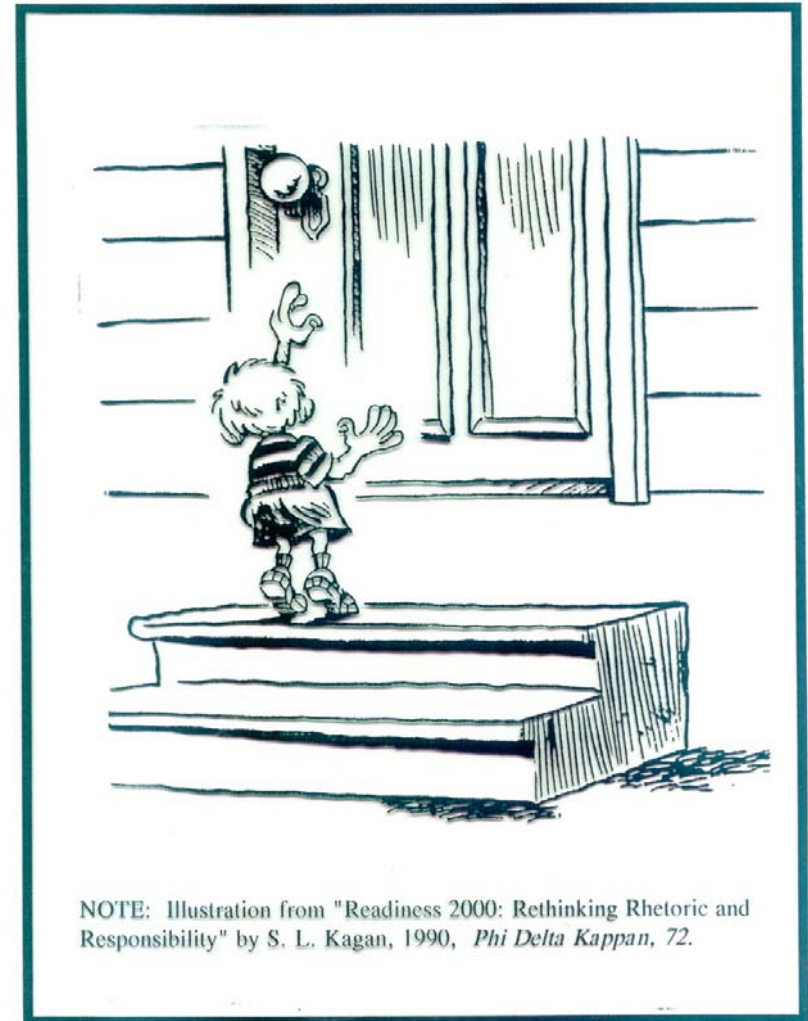
More powerful instruction involves:

More instructional time

Smaller instructional groups

More precisely targeted at right level

A mistake we often make in education is to plan the curriculum materials very carefully, arrange all the instructional materials wall to wall, open the doors of the school, and then find to our dismay that they've sent us the wrong kids.



NOTE: Illustration from "Readiness 2000: Rethinking Rhetoric and Responsibility" by S. L. Kagan, 1990, *Phi Delta Kappan*, 72.

What are the critical elements of effective interventions?

Ways that instruction must be made more powerful for students “at-risk” for reading difficulties.

More powerful instruction involves:

More instructional time

Smaller instructional groups

} resources

More precisely targeted at right level

Clearer and more detailed explanations

More systematic instructional sequences

More extensive opportunities for guided practice

More opportunities for error correction and feedback

} skill

Two resources for teachers and schools to improve differentiated instruction and interventions:

To download up to 240 independent student learning activities for K-1 classrooms, and also to receive video-based training in the use of these activities to support reading instruction: go to <http://www.fcrr.org/activities/>

To find objective, teacher-written reviews of commercially available intervention programs and materials, go to: <http://www.fcrr.org/FCRRReports/>

About 70 supplemental/intervention program reviews are available

What about interventions for older students?

There are really two problems to address...

1. We have many students with reading disabilities in late elementary, middle and high school right now, who did not receive the benefit of powerful preventive instruction and continue to struggle with basic skills...
2. Many students with reading disabilities need continued support for the development of more advanced reading skills as they encounter increasingly complex text in middle and high school

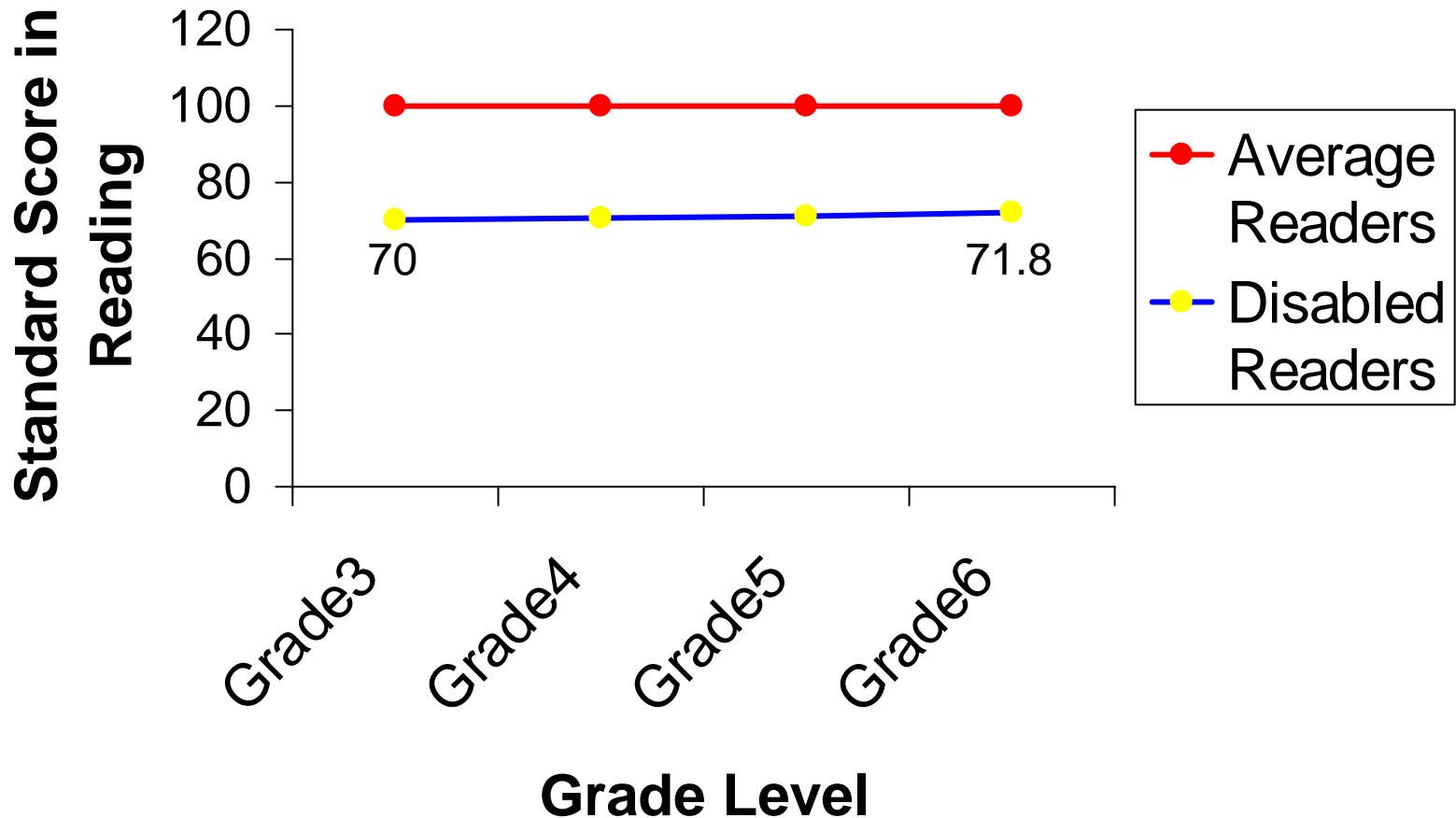
A comprehensive model for reading instruction in late elementary, middle, and high school

1. Intensive Reading Classes for struggling readers—taught by reading specialists
2. More effective instruction in content knowledge and understanding-made accessible for weaker readers
3. Content teachers provide instruction that helps students improve their skills in how to learn from reading—reading strategies
4. Ongoing formative assessments as well as end of year outcome assessments

What is currently known about the effects of intensive remedial interventions for older students with serious reading difficulties

Change in Reading Skill for Children with Reading Disabilities who Experience Growth in Reading of .04 Standard Deviations a Year

Hanushek, Cain, & Rivkin, 1998



A study of intensive, highly skilled intervention with 60 children who had severe reading disabilities

Children were between 8 and 10 years of age

Had been receiving special education services for an average of 16 months

Nominated as worst readers: at least 1.5 S.D's below grade level

Average Word Attack=69, Word Identification=69, Verbal IQ=93

Randomly assigned to two instructional conditions that both taught “phonics” explicitly, but used different procedures with different emphasis

Children in both conditions received 67.5 hours of one-on-one instruction, 2 hours a day for 8 weeks

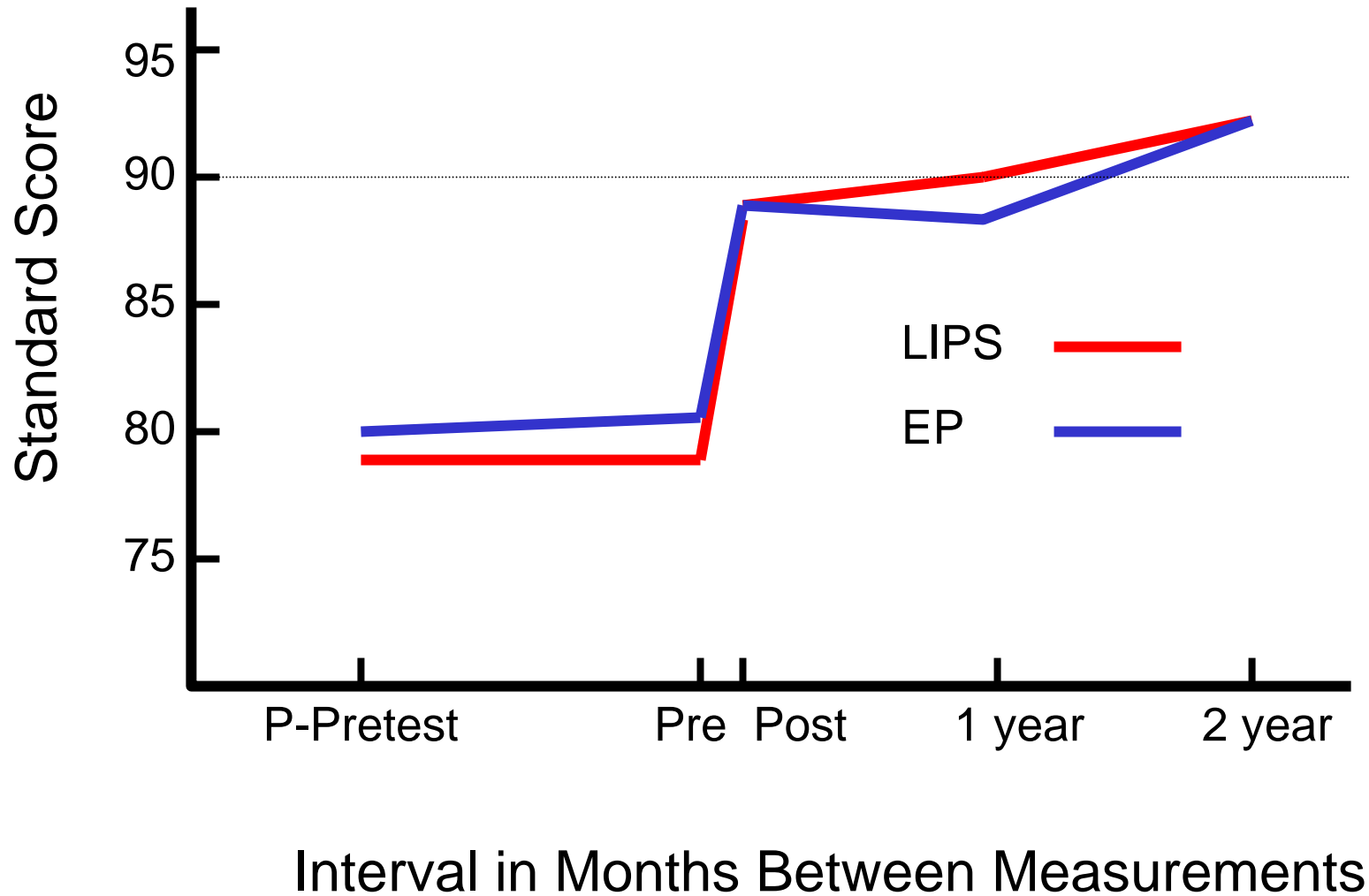
Children were followed for two years after the intervention was completed

Time x Activity Analyses for the Two Intervention Approaches

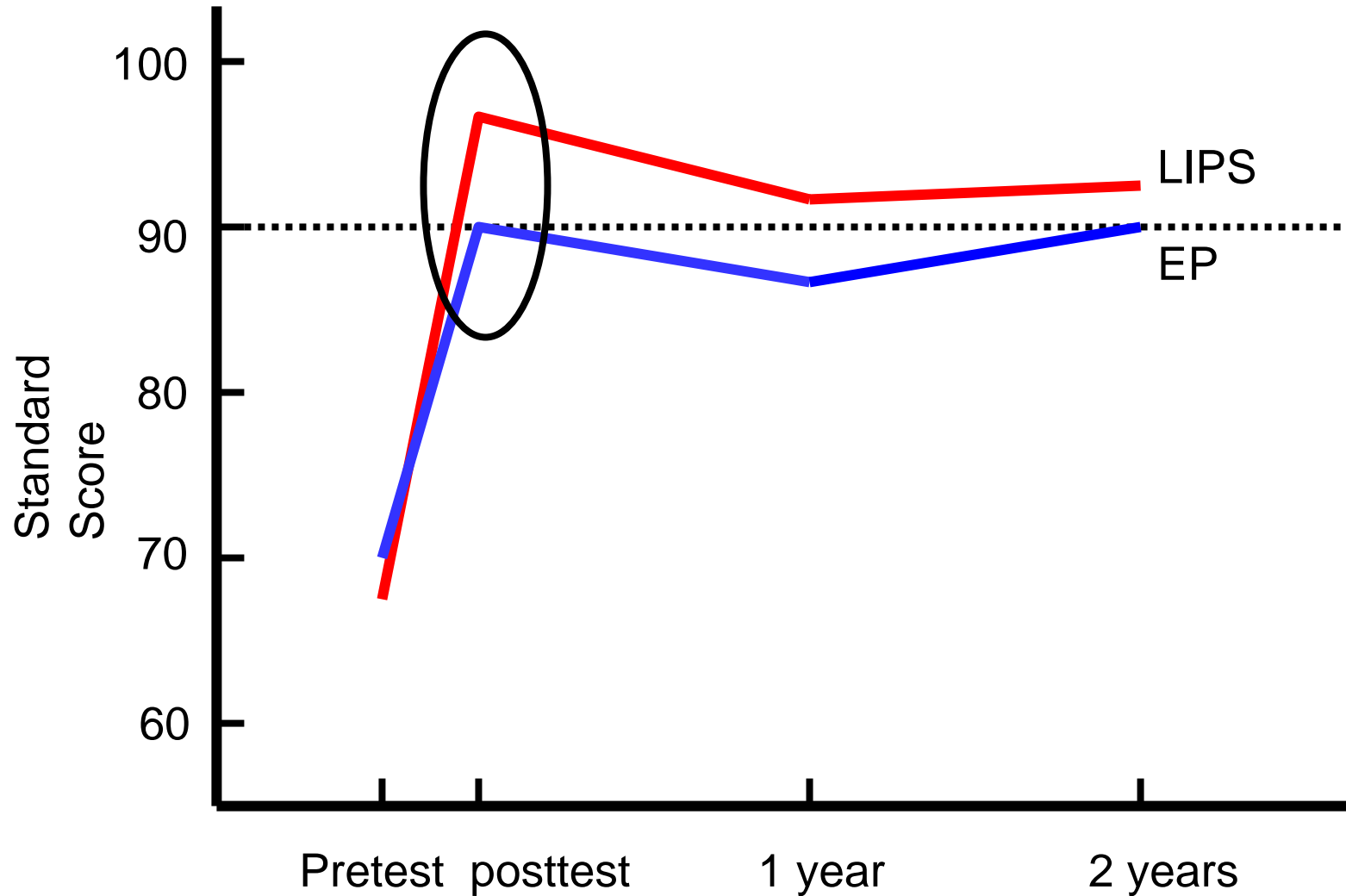
	LIPS	EP
Phonemic Awareness and Phonemic Decoding	85%	20%
Sight Word Instruction	10%	30%
Reading or writing connected text	5%	50%

Torgesen, J.K., Alexander, A. W., Wagner, R.K., Rashotte, C.A., Voeller, K., Conway, T. & Rose, E. (2001). Intensive remedial instruction for children with severe reading disabilities: Immediate and long-term outcomes from two instructional approaches. *Journal of Learning Disabilities, 34, 33-58.*

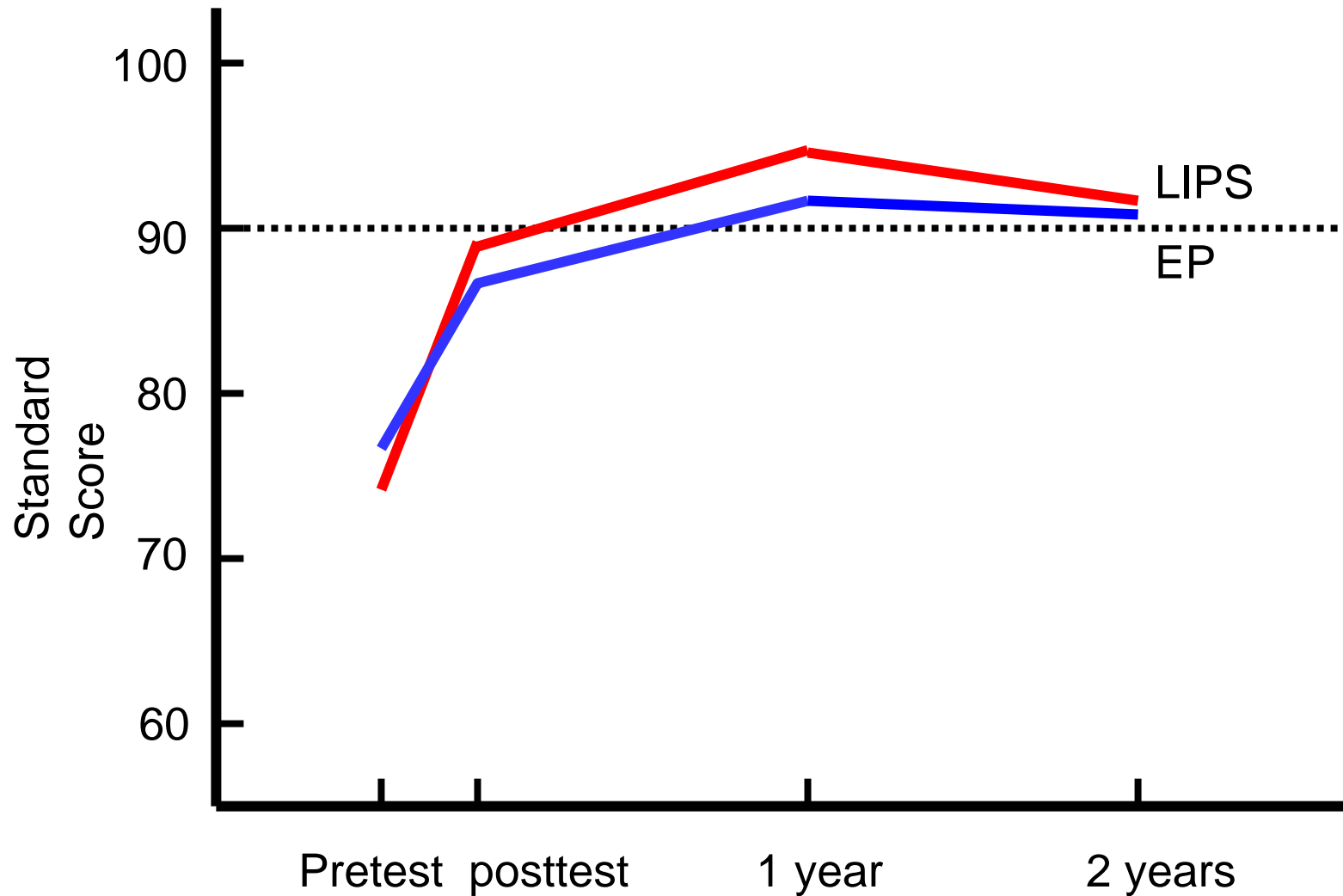
Growth in Total Reading Skill Before, During, and Following Intensive Intervention



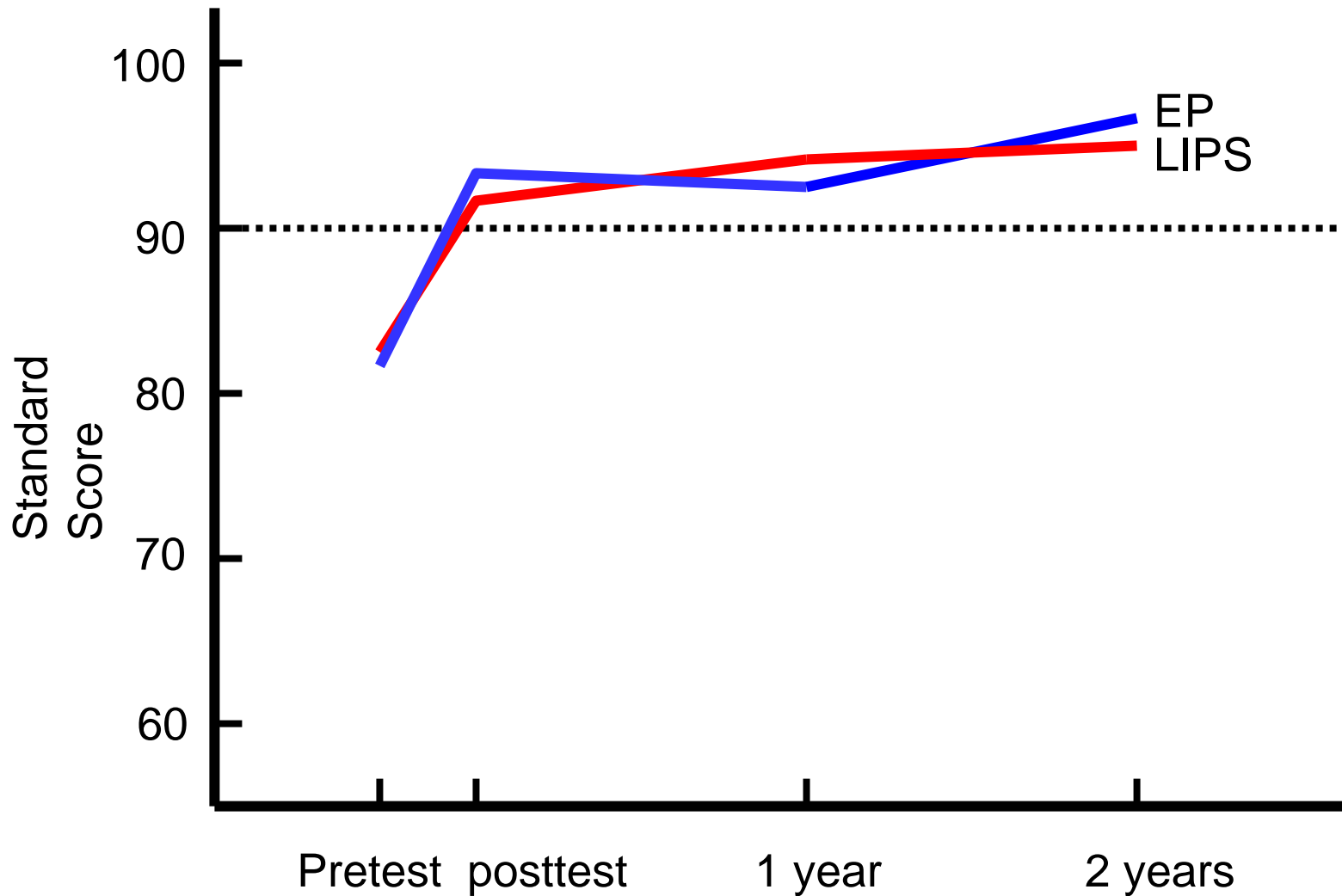
Growth in phonemic decoding during intervention & follow-up



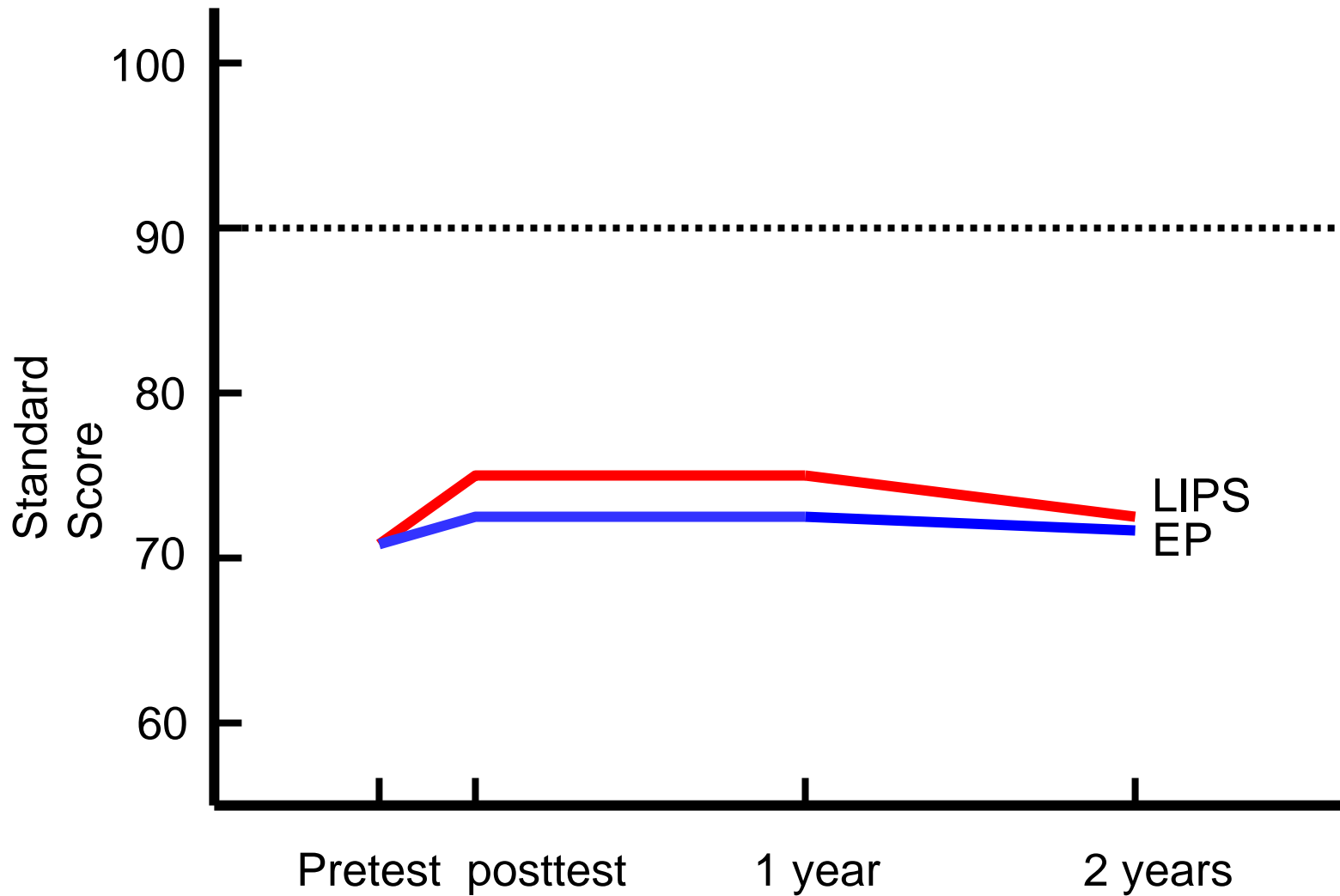
Growth in text reading accuracy during intervention & follow-up



Growth in comprehension during intervention & follow-up



Growth in fluency during intervention & follow-up



Oral Reading Fluency was much improved on passages for which level of difficulty remained constant

Absolute change in rate from pretest to 2-year follow-up.

Most difficult passage

Pretest -- 38 WPM, 10 errors

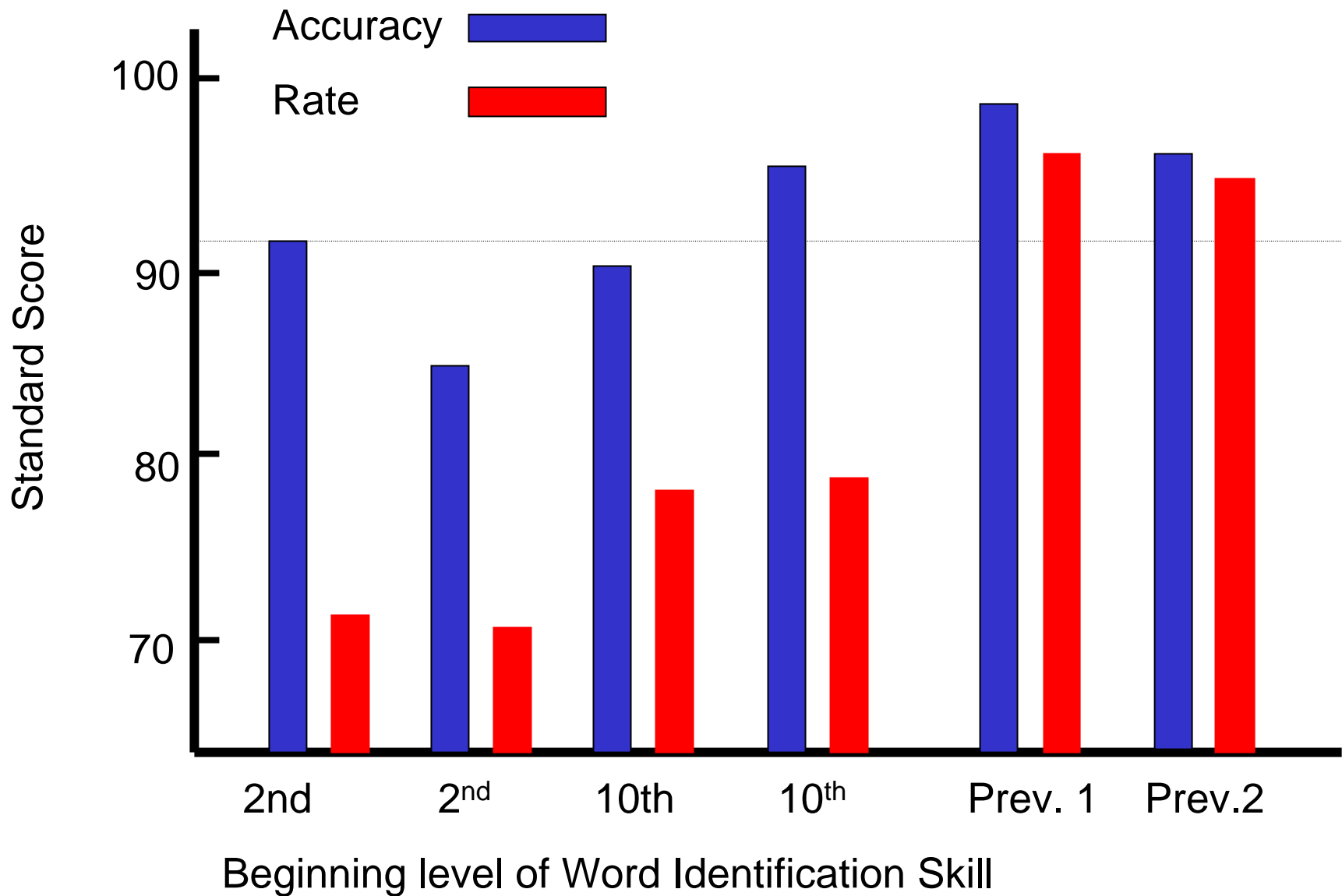
Posttest -- 101 WPM, 2 errors

Next most difficult passage

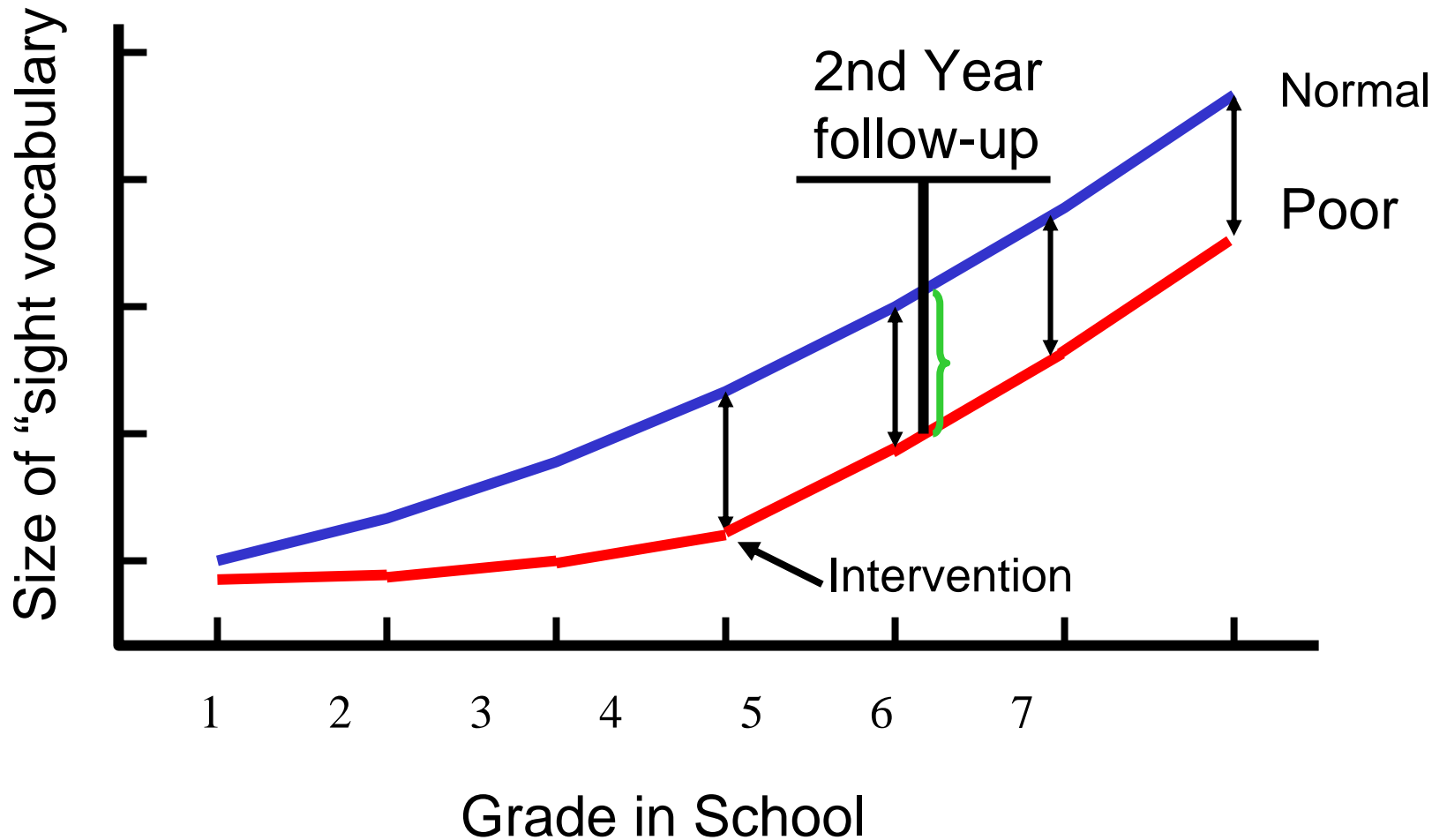
Pretest -- 42 WPM, 6 errors

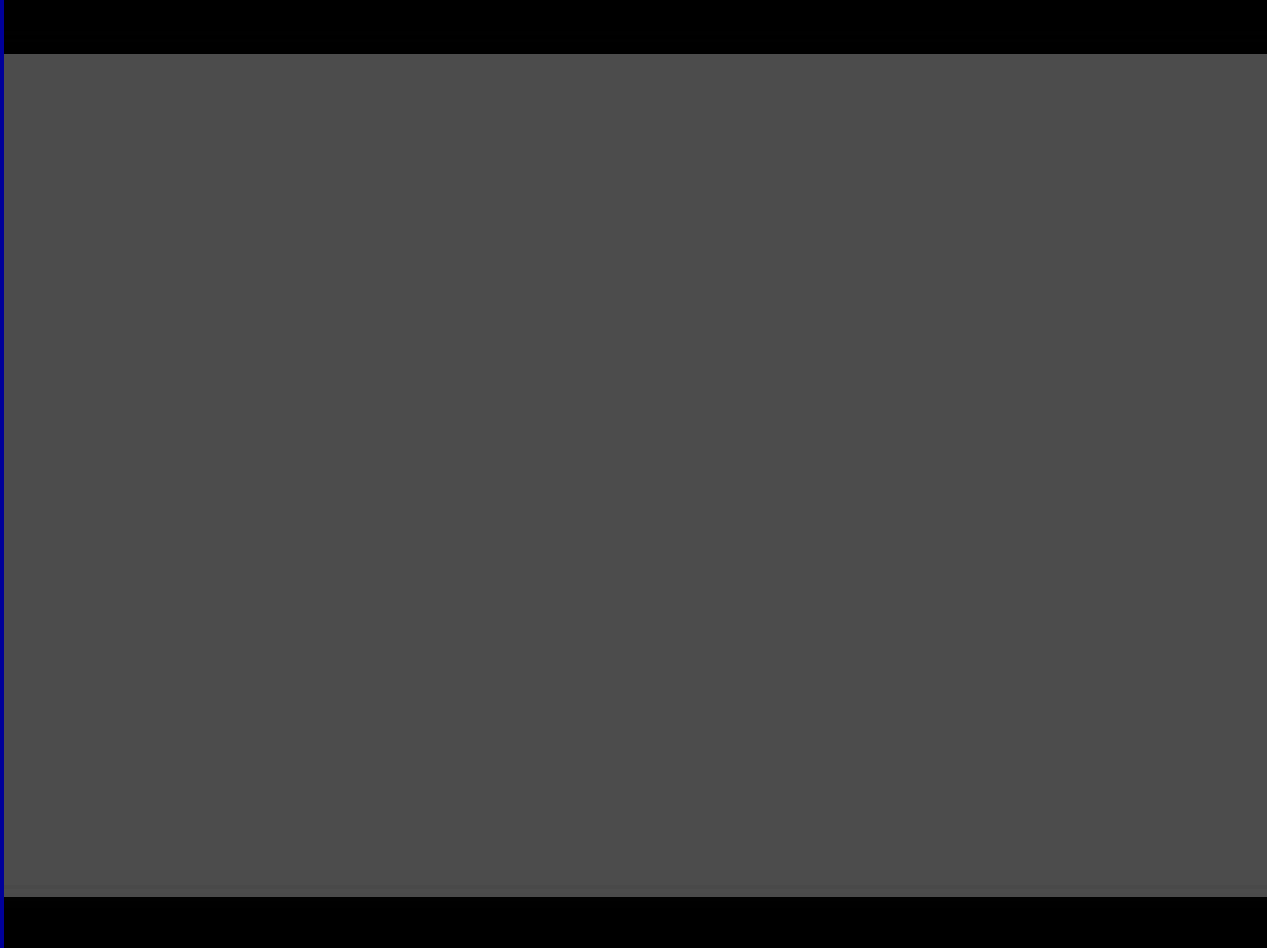
Posttest -- 104 WPM, 1 error

Disparity in outcomes for rate vs. accuracy in five remediation studies



Projected growth in “sight vocabulary” of normal readers and struggling readers before and after remediation





Alexis....

Conclusions about interventions with older students:

We know how to do much better in remediating reading difficulties in older students than we are frequently doing in our schools.

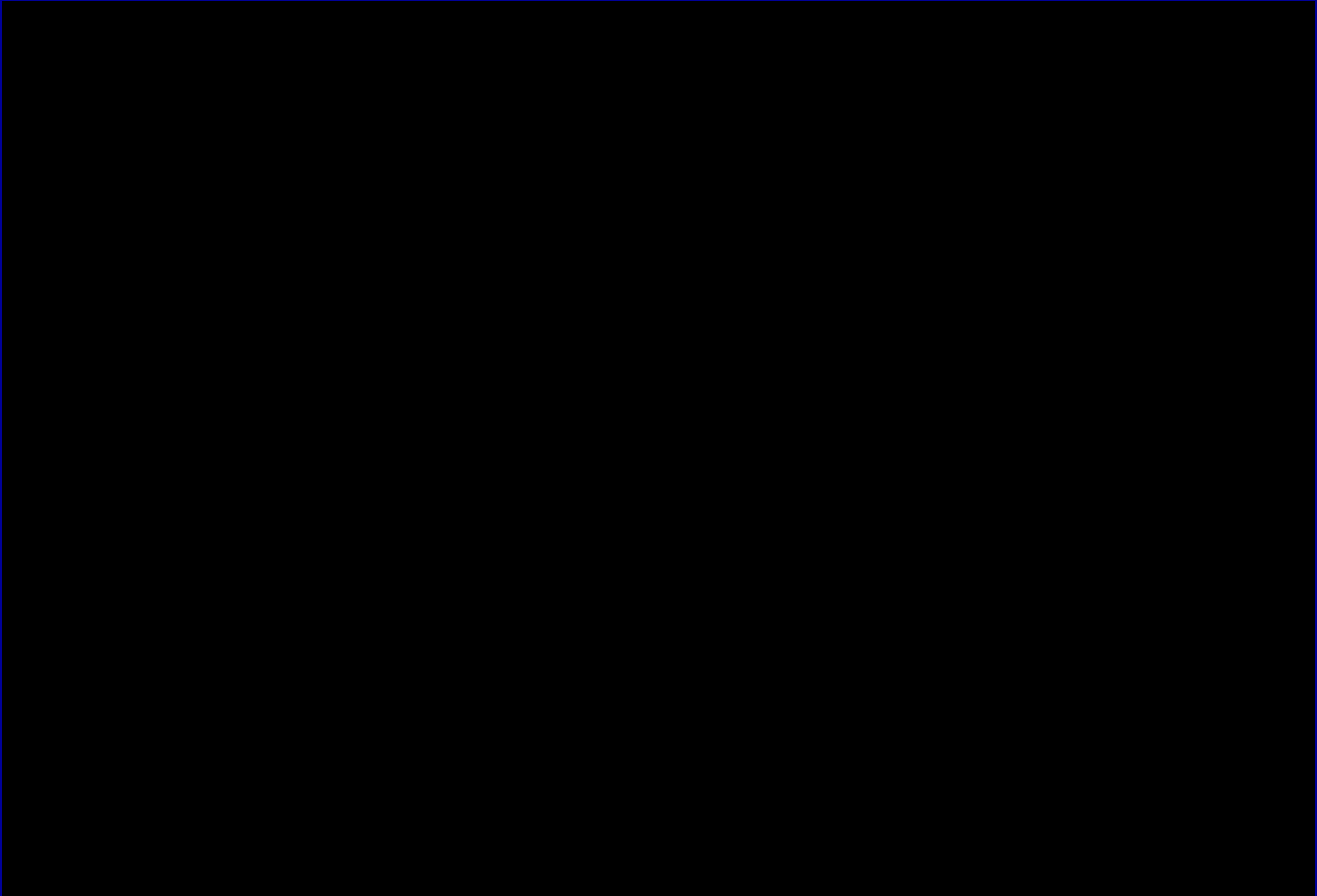
However, we do not yet have research demonstrations of all the conditions that need to be in place to completely close the reading gap for older students after they have struggled in reading for several years.

A final concluding thought....

There is no question but that providing the right kind of interventions for students who need them is a very difficult challenge...

It will involve professional development for teachers, school reorganization, careful assessments, and a relentless focus on the individual needs of every child...

But, its not the most difficult thing we could be faced with...



Consider this task for example...

Thank You