

# Applying Progress Monitoring to RTI Prevention and Identification

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# From Intelligence & Achievement Testing to Response-to-Intervention

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- Assessment for identifying students with learning disabilities has largely relied on intelligence and achievement testing
- The OSEP LD Initiative
- Is there another option?

# Route to an Alternative ID

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- IDEA, 1997 Amendments (Request to address LD discrepancy issue)
- H.R. 1350, IDEIA, 2004
  - Sec. 614. (6) Evaluations, Eligibility Determinations, Individualized Education Programs, and Educational Placements.
  - [http://thomas.loc.gov/cgi-bin/query/F?c108:6:./temp/~c108QwNp9E:e181513:](http://thomas.loc.gov/cgi-bin/query/F?c108:6:./temp/~c108QwNp9E:e181513)
- LD Summit, August 2001 (existing research base)

# Route to an Alternative ID (cont'd)

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- Defining Common Ground Round Table
- National Research Center on Learning Disabilities (NRCLD)
- Responsiveness-to-Intervention Symposium (December 2003)
  - Commissioned papers
  - DVD of presentations

# LD Identification: Using CBM to Identify Students Who Are Not Responsive to Instruction

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- Alternative framework is conceptualized as non-responsiveness to otherwise effective instruction
- Operationalize unresponsiveness as CBM dual-discrepancy
  - CBM performance level is below classmates
  - CBM slope (rate of learning) is below classmates

# LD Identification: Using CBM to Identify Students Who Are Not Responsive to Instruction

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- All students do not ultimately achieve same degree of reading competence
- Just because reading growth is low, student doesn't automatically receive special education services
- If learning rate is similar to other classmates, student is profiting from the regular education environment

# LD Identification: Using CBM to Identify Students Who Are Not Responsive to Instruction

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- If a low-performing student does not grow where other students are thriving, special intervention needs to be considered
- Alternative instructional methods must be tested to address mismatch between student's learning requirements and requirements in conventional instructional program

# CBM

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- Teachers assess students' academic performance, using brief measures, on a frequent basis
- The major purposes are
  - To describe rate of response to instruction
  - To build more effective programs

# Grade 2 Reading CBM

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- Each week, every student reads aloud from a second-grade passage for 1 minute
- Each week's passage is the same difficulty
- As student reads, teacher marks errors
- Count number of words read correctly
- Graph scores

# CBM

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- Not interested in making kids read faster
- Interested in kids becoming better readers
- The CBM score is an overall indicator of reading competence
- Students who score high on CBM
  - Are better decoders
  - Are better at sight vocabulary
  - Are better comprehenders
- Correlates highly with high-stakes tests

# CBM passage for Correct Words Per Minute

Mom was going to have a baby. Another one! That is all we need thought Samantha who was ten years old. Samantha had two little brothers. They were brats. Now Mom was going to have another one. Samantha wanted to cry.

“I will need your help,” said Mom. “I hope you will keep an eye on the boys while I am gone. You are my big girl!”

Samantha told Mom she would help. She did not want to, thought. The boys were too messy. They left toys everywhere. They were too loud, too. Samantha did not want another baby brother. Two were enough.

Dad took Samantha and her brothers to the hospital. They went to Mom’s room. Mom did not feel good. She had not had the baby. The doctors said it would be later that night. “I want to wait here with you,” said Samantha. “Thank you Samantha. But you need to go home. You will get too sleepy. Go home with Grandma. I will see you in the morning,” said Mom.

That night Samantha was sad. She knew that when the new baby came home that Mom would not have time for her. Mom would spend all of her time with the new baby.

The next day Grandma woke her up. “Your mom had the baby last night,” Grandma said. “We need to go to the hospital. Get ready. Help the boys get ready, too.”

Samantha slowly got ready. She barely had the heart to get dressed. After she finished, she helped the boys. They sure were a pain! And now another one was coming. Oh brother!

Soon they were at the hospital. They walked into Mom’s room. Mom was lying in the bed. Her tummy was much Smaller. Samantha . . .

# What We Look For in CBM

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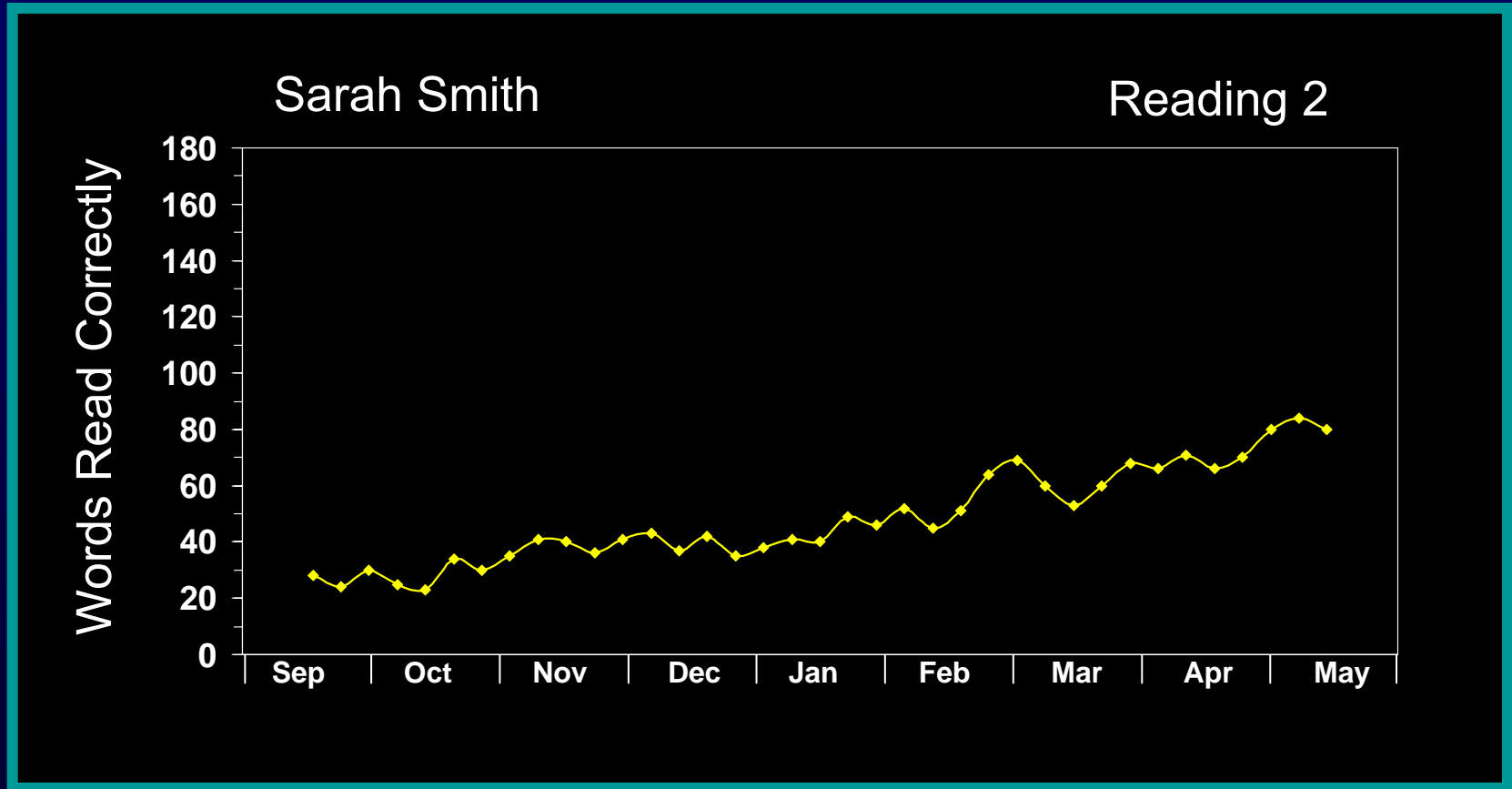
## INCREASING SCORES:

Student is becoming a better reader.

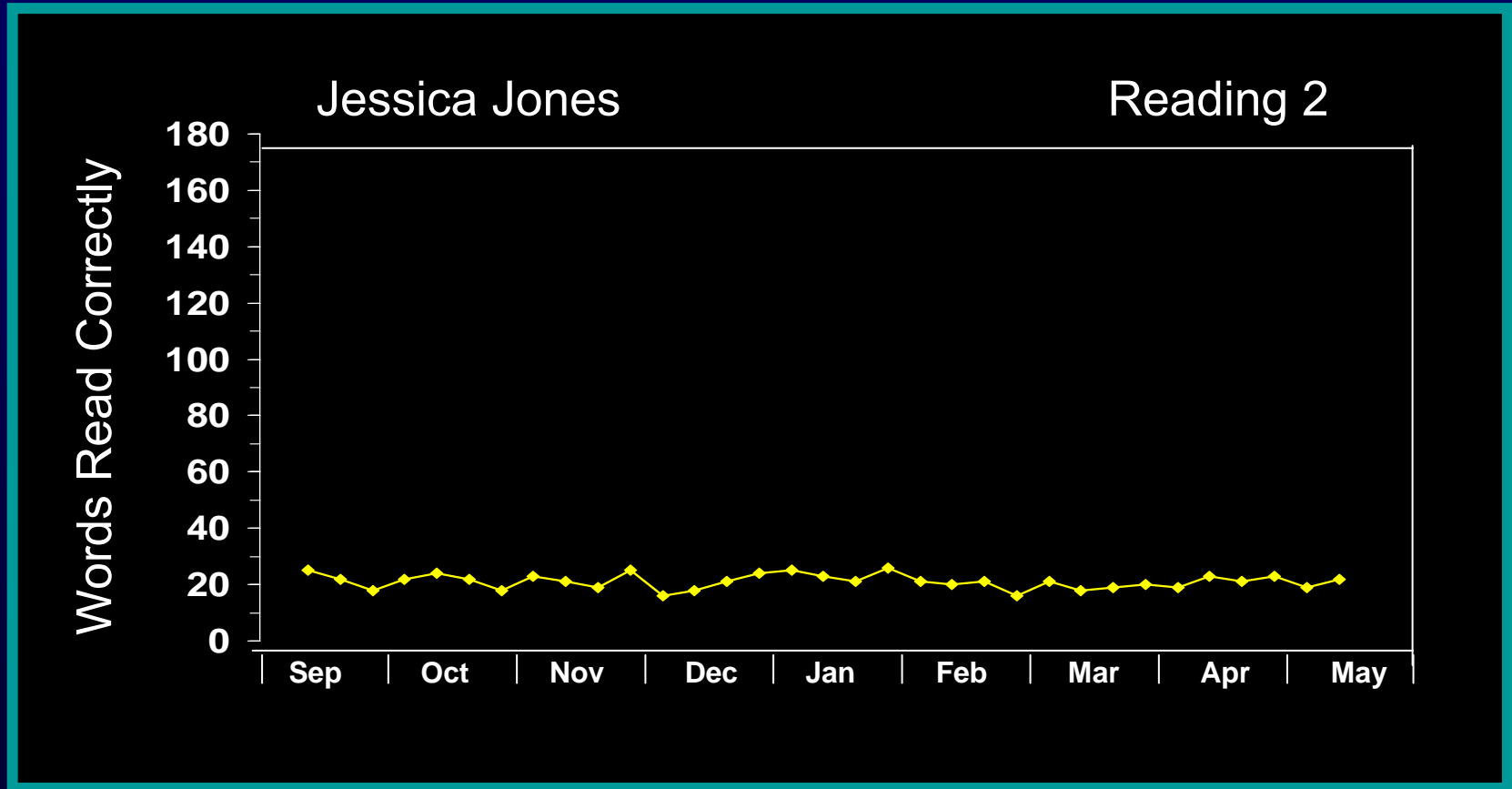
## FLAT SCORES:

Student is not profiting from instruction and requires a change in the instructional program.

# Sarah's Progress on Words Read Correctly



# Jessica's Progress on Words Read Correctly



# Reading CBM

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- Kindergarten: Letter-Sound Fluency
- Grade 1: Word-Identification Fluency
- Grades 2-3: Passage Reading Fluency
- Grades 4-6: Maze Fluency

# Kindergarten

## Letter-Sound Fluency

Teacher: *Say the sound that goes with each letter.*

Time: 1 minute

p U z u y

i t R e w

O a s d f

v g j S h

k m n b V

Y E i c x

...

# Grade 1

## Word-Identification Fluency

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Teacher: *Read these words.*

Time: 1 minute.

**two**

**for**

**come**

**because**

**last**

**from**

**...**

# Grades 2-3

## Passage Reading Fluency

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- Number of words read aloud correctly in 1 minute on end-of-year passages

# CBM passage for Correct Words Per Minute

Jason Fry ran home from school. He had to pack his clothes. He was going to the beach. He packed a swimsuit and shorts. He packed tennis shoes and his toys. The Fry family was going to the beach in Florida.

The next morning Jason woke up early. He helped Mom and Dad pack the car, and his sister, Lonnie, helped too. Mom and Dad sat in the front seat. They had maps of the beach. Jason sat in the middle seat with his dog, Ruffie. Lonnie sat in the back and played with her toys.

They had to drive for a long time. Jason looked out the window. He saw farms with animals. Many farms had cows and pigs but some farms had horses. He saw a boy riding a horse. Jason wanted to ride a horse, too. He saw rows of corn growing in the fields. Then Jason saw rows of trees. They were orange trees. He sniffed their yummy smell. Lonnie said she could not wait to taste one. Dad stopped at a fruit market by the side of the road. He bought them each an orange.

# Grades 4-6

## Maze Fluency

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- Number of words replaced correctly in 2.5 minutes on end-of-year passages from which every 7<sup>th</sup> word has been deleted and replaced with 3 choices

# Computer Maze

## A SCARY NOISE

Ray lived in Georgia. He was born there and had \_\_\_\_\_ friends. One day Dad had come home \_\_\_\_\_ work to say that they would have \_\_\_\_\_ move far away. Dad worked in \_\_\_\_\_ factory. The factory had closed and Dad \_\_\_\_\_ a new job. Dad had found a \_\_\_\_\_ job and now they had to move.

Ray \_\_\_\_\_ sad because he did not want \_\_\_\_\_ leave his school. He did not \_\_\_\_\_ to leave his friends.

"I am \_\_\_\_\_, son," said Dad.

"It is OK," \_\_\_\_\_ Ray with a smile. He did \_\_\_\_\_ want Dad to feel bad.

They \_\_\_\_\_ up the car and moved to a \_\_\_\_\_ state. Their new

# In RTI, CBM Used For ...

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- > **Identifying Risk**
  - One-time screening
  - Monitoring response to GE
- Reversing Failure without SE
  - Individual adaptations to class instruction
  - Preventive tutoring
- Designating response (or lack thereof) to identify LD

# One-Time Screening with CBM

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- Students are tested at one point in time.
- Those scoring below a score are designated at risk for RD.
- At-risk students enter preventative tutoring.

# CBM Screening to Designate Risk

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- 1: < 15 sounds/min
- 2: < 15 words in text/min
- 3: < 50 words in text/min
- 4: < 70 words in text/min
- 5-7: < 15 maze replacements/2.5 min

# CBM Monitoring of Response to GE

- Administer weekly CBM to all students in the class.
- Identify subset of children whose level of performance and rate of improvement is substantially less than class peers.

**Identify  
students  
whose  
response  
to general  
education  
< class  
peers.**

## **CLASS STATISTICS: Computation**

Teacher: Mrs. Smith

Report through 3/17

### **Score**

Average score	39.5
Standard deviation	12.6
Discrepancy criterion	26.9

### **Slope**

Average slope	+0.98
Standard deviation	0.53
Discrepancy criterion	+0.45

### **Students identified with dual discrepancy criterion**

	<u>Score</u>	<u>Slope</u>
Anthony Jones	19.0	+0.05
Erica Jernigan	18.0	+0.23

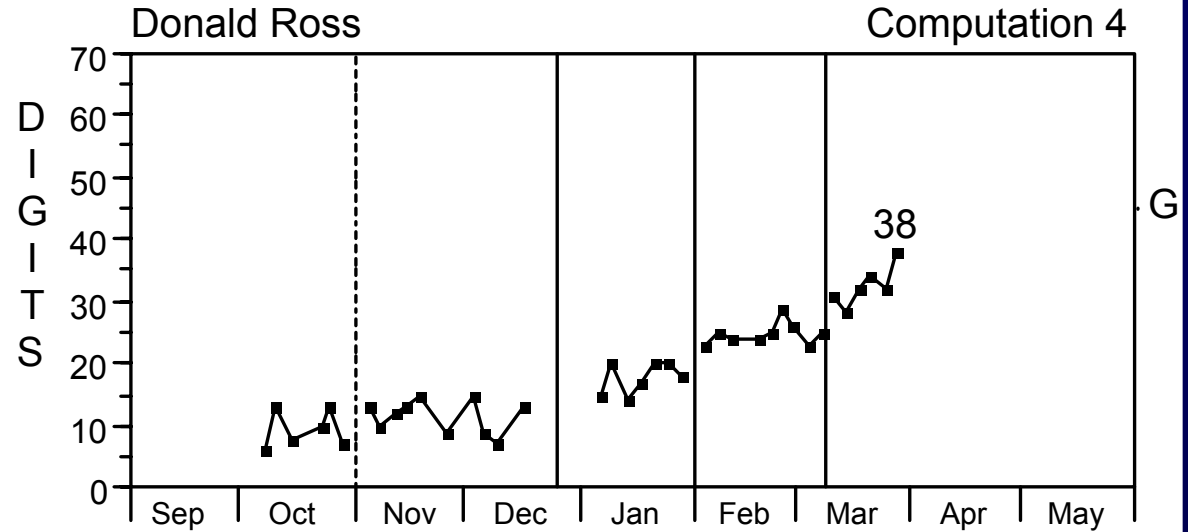
# In RTI, CBM Used For

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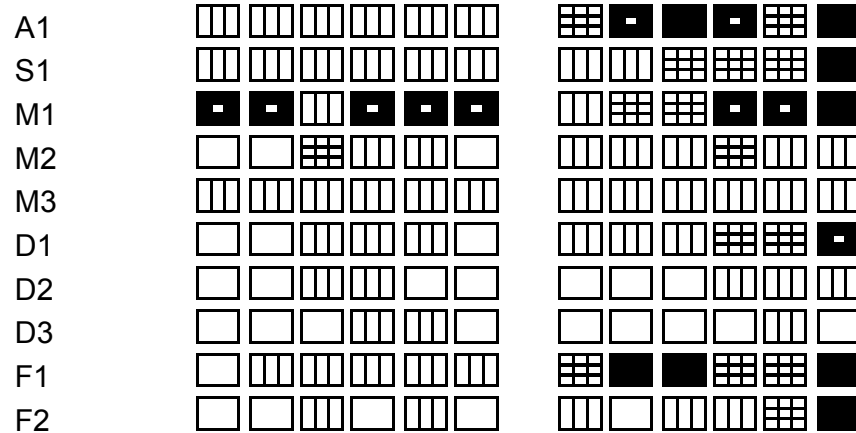
- Identifying Risk
  - One-time screening
  - Monitoring response to GE
- **> Reversing Failure without SE**
  - **Individual adaptations to class instruction**
  - **Preventive tutoring**
- Designating response (or lack thereof) to identify LD

# Using CBM to test effectiveness of adaptations to class instruction



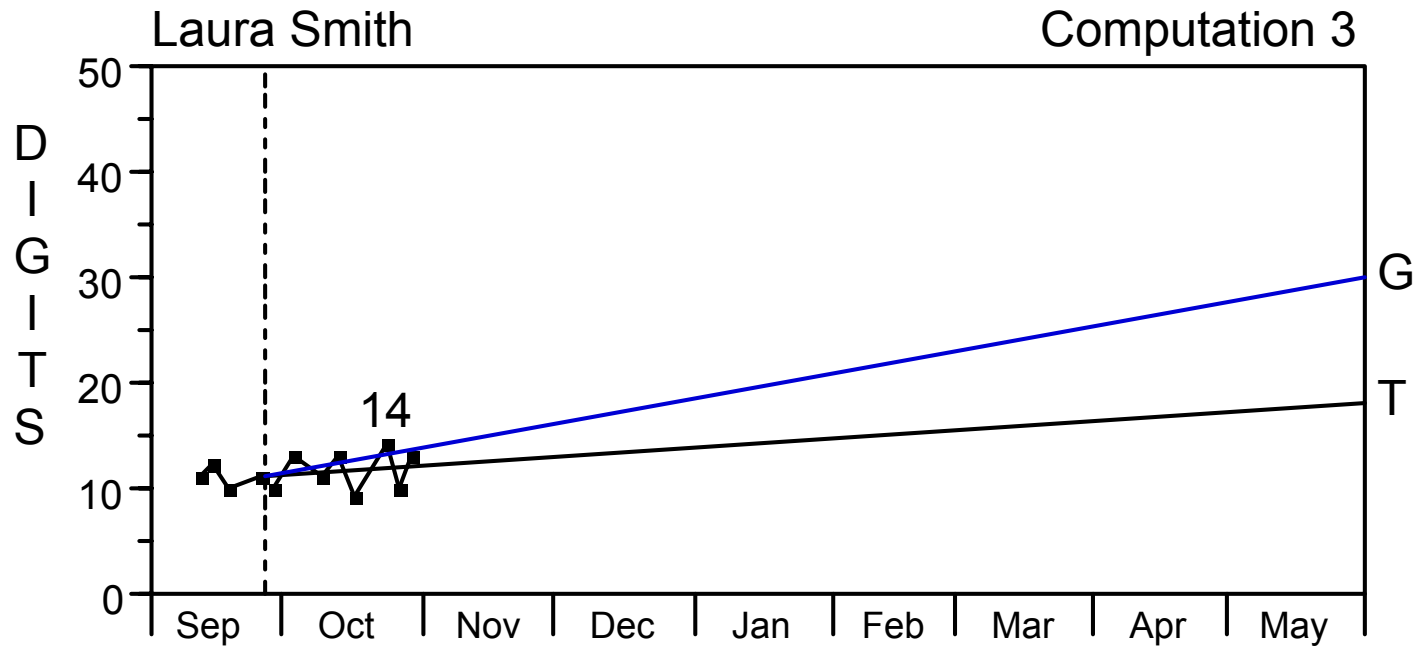
**Wait. Not enough scores for decision.**

You need at least 8 scores to make a decision.



Student data trend < goal line:

Make a teaching change.



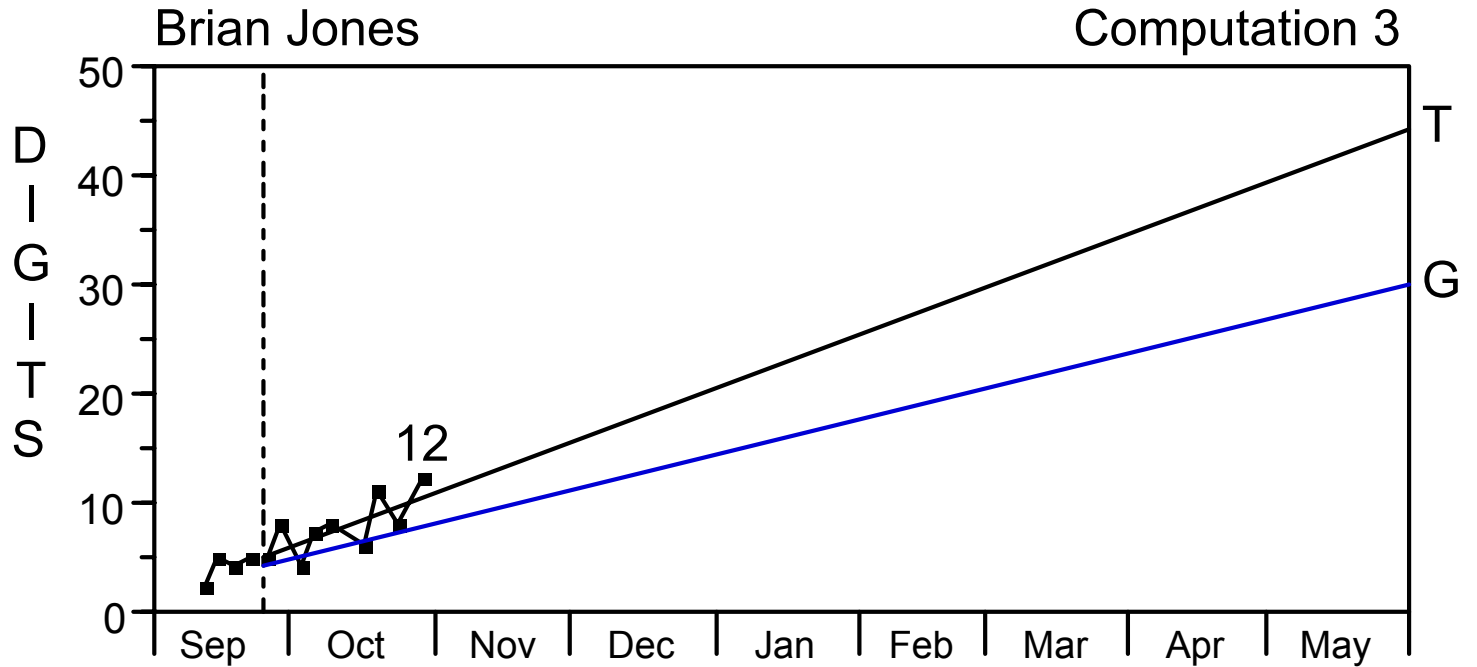
**Uh-oh! Make a teaching change.**

Student's rate of progress is less than the goal line.

A1					
S1					
S2					
M1					
M2					
D1					

Student  
data  
trand >  
goal  
line:

Raise  
the  
goal.

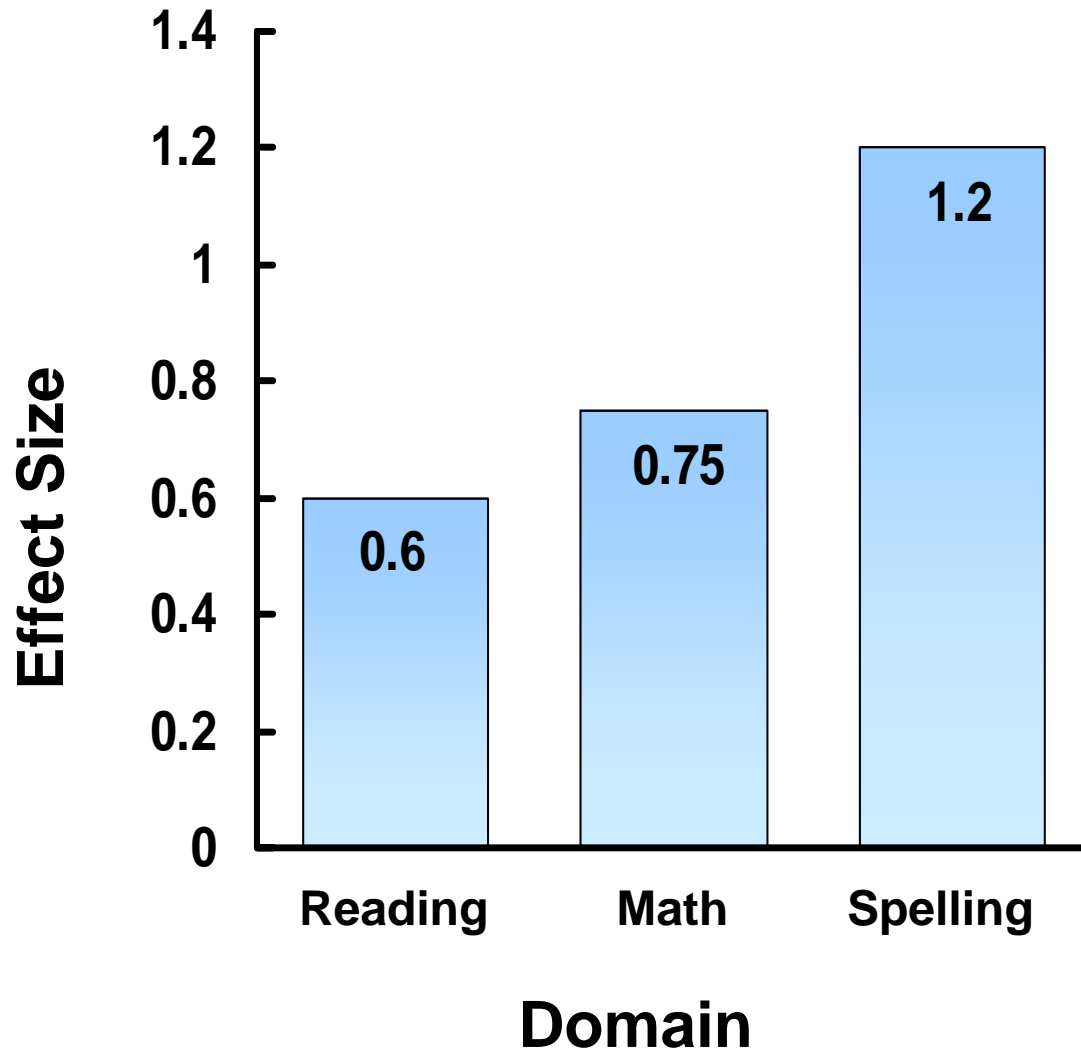


**OK!! Raise the goal.**

Student's rate of progress exceeds the goal line

A1					
S1					
S2					
M1					
M2					
D1					

# Effect Sizes for CBM



# NRCLD Preventive Tutoring

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## *Content*

- Letter-sound recognition
- Decoding
- Sight word recognition
- Fluency building
- Partner reading
- Writing incorporated into correction procedures

# Lesson 18

coach says:

n g r d f i ★ n t

"What sound?"

m r i o n a ★ r g

o f n d i s m g ★



5 points



5 points

mom

sat

dog

Rags

got

Sam

in

grass

1. "Sound it out."

2. "Read it fast."



5 points



5 points

come blue said one with come see

"Read the words."

blue come has was said see with

come blue one was find two said

was one see yellow has come was

have come find have come see was



5 points



5 points

### Rags and the **Bone**



Rags was with Sam at the **park**.

A **bone** was in the grass.

"Rags, come!" said Sam.

"See the **bone**?"

Rags got the **bone**.

"Read the story."

bone

park



5 points



5 points



5 points



5 points



5 points



5 points



Go back to "Read the words."

# Tutoring

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## *Format*

- Conducted in 17 groups of 4 students and 8 groups of 2 students
- 9 wks, 4x per wk, 35-45 min per session
- Point system for motivation

# In RTI, CBM Used For

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- Identifying Risk
  - One-time screening
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- **> Designating response (or lack thereof) to identify LD**

# Options for Designating Nonresponse (i.e., LD)

**IQ-ACH Discrepancy:** conventional definition: discrepancy between intelligence and achievement (1 *SD* in *SS* units).

**Low Achievement with Average IQ** (Fuchs, Mock, Morgan, & Young, 2003): final low achievement (*SS* < 80) + average IQ (> 85)

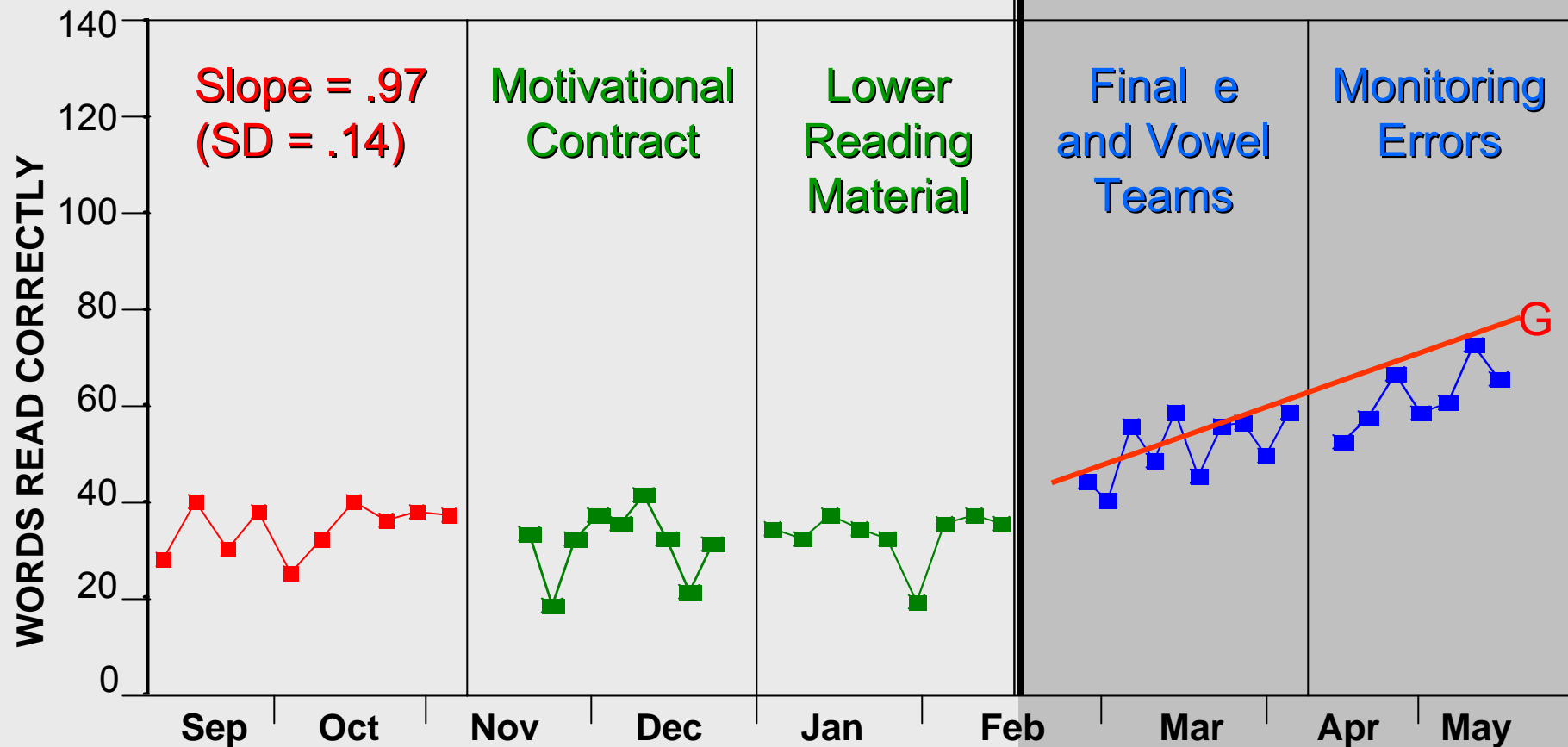
**RTI Low Achievement** (Torgesen, 2000): final low achievement (*SS* < 80) denotes failure of intervention to “normalize” performance

## **RTI Slope**

- **Slope median split** (Vellutino et al., 1996): median split on *tutored* students' slope is cut-point for designating inadequate response
- **Slope discrepancy** (Fuchs & Fuchs, 1998): inadequate response denoted as discrepancy on CBM slope (*SS* < 80)
- **Dual discrepancy** (Fuchs & Fuchs, 1998): inadequate response denoted as discrepancies on CBM slope (*SS* < 80) with low final CBM (*SS* < 80)

# Regular Education

# Special Education



**FR2**

**MOTIVATIONAL CONTRACT:** self monitoring completion of classroom work during reading instructional period, especially reading library books during class reading period, with negotiated reward

**LOWER READING MATERIAL:** identifying, with assistance of librarian, high interest library books of lower, more appropriate difficulty level

**FINAL e AND VOWEL TERMS:** Mnemonics instruction in decoding final e and vowel team words, with systematic planning for transfer to decoding in natural text

**MONITORING ERRORS:** Reading aloud into a tape recorder. Then, listening to herself read while reading silently, and identifying and correcting errors that fail to preserve the meaning of the text. Mixing this with repeated reading activities.

Fuchs Research, 8/11/2003

# For Information about the OSEP LD Initiative

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- [www.NRCLD.org](http://www.NRCLD.org)
- [www.air.org/ldsummit/](http://www.air.org/ldsummit/)
- [www.ld.org/advocacy/CommonGround.doc](http://www.ld.org/advocacy/CommonGround.doc)
- [www.erlbaum.com](http://www.erlbaum.com)
- *Identification of Learning Disabilities:  
Research to Practice*, Renée Bradley, Louis  
Danielson, and Daniel Hallahan (Eds.), 2002

# For Information about Progress Monitoring Materials

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- Reading probes
  - [diana.j.phillips@vanderbilt.edu](mailto:diana.j.phillips@vanderbilt.edu)
- Math probes and/or software:
  - “Monitoring Basic Skills Progress”
  - Pro-Ed: 512-451-3246
- Web math system:
  - [www.digitallearning.com](http://www.digitallearning.com)
- AIMSweb software, measures, admin & scoring guides
  - [www.aimsweb.com](http://www.aimsweb.com) or <http://www.edformation.com>

# For Information about Progress Monitoring, Training & Research

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- National Center for Student Progress Monitoring
  - [www.studentprogress.org](http://www.studentprogress.org)
  - [studentprogress@air.org](mailto:studentprogress@air.org)
- Research Institute on Progress Monitoring
  - <http://progressmonitoring.org>