RTI: How Do You Know It's Working?

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Purpose of This Presentation

- Explain Five Steps for Assessing Whether RTI Is Working in Your School or District

Step 1

- Specify Each Component of Your RTI Model
  - For Each Academic Area
    - At Each Grade

Components of an RTI Model

1. Number of tiers (2-5)
2. How at-risk students are identified
   - Percentile cut on norm-referenced test
   - Cut-point on curriculum-based measurement (CBM) with/out PM
3. Nature of secondary prevention
   - Individualized (i.e., problem solving)
   - Standardized research-based protocol
4. How “response” is defined (methods, measures, cut-points)
   - Posttest norm-referenced tests or benchmarks
   - Pre-post improvement
   - CBM slope and final status
5. What happens to nonresponders
   - The nature of the comprehensive evaluation
   - The nature of special education

Step 2

- Complete a Template Describing Each Component of Your RTI Model

An RTI Template

Academic area: _____

Grade level: _____

PRIMARY PREVENTION

* Dictated by school or district, in combination with adaptations and accommodations.

* Universal screening occurs to identify at-risk students.

* Screening may be supplemented with progress monitoring to verify risk status.

An RTI Template

P1: Validated, research-based, or promising adaptations or accommodations.

Adaptation/accommodation #1:

Adaptation/accommodation #2:

Adaptation/accommodation #3:

An RTI Template

P2: Describe the universal screening methods:

Assessment and scoring procedures:

Cut-point for designating potential risk:

An RTI Template

P3: Progress-monitoring procedures for verifying risk status:

Assessment and scoring procedures:

Frequency of progress monitoring:

Number of data points required for making a decision about progress:

Cut-point for designating adequate progress (and disconfirming risk):

Slope (if applicable):

Level (if applicable):

Other (if applicable):

An RTI Template

SECONDARY PREVENTION

* Conducted for students who show evidence of failing with primary prevention.

* If one approach to secondary prevention fails, then a second [or third] approach, of similar intensity, may be attempted.

* Typically, secondary prevention involves scientifically-validated or research-based small-group tutoring, conducted by trained and supervised tutors.

* Progress monitoring is used to determine whether the student has responded.

An RTI Template

S1: Describe 1-3 promising approaches for secondary prevention tutoring:

For each approach:

Description of tutoring procedures:

Tutoring group size:

Number of sessions per week:

Length of each session:

Number of weeks:

Number of sessions before response can be determined:

Required background, training, and supervision for the tutor:

An RTI Template

S2: Describe progress monitoring to determine whether the student has responded:

Assessment and scoring procedures:

Frequency of progress monitoring:

Number of data points required for making a decision about response:

Cut-point for designating adequate response:

Slope (if applicable):

Level (if applicable):

Other (if applicable):

An RTI Template

TERTIARY PREVENTION

Distinguished from secondary prevention by

(a) smaller tutoring groups

(b) more frequent and longer sessions

(c) individualized instructional goals with out-of-level instructional content

(d) progress monitoring to inductively formulate instructional programs

Progress monitoring is conducted weekly or twice weekly to

(a) set goals

(b) inductively formulate individualized instructional programs

(c) determine responsiveness

(d) determine when secondary or primary prevention re-entry is appropriate.

An RTI Template

T1: Describe the tutoring dosage:

Tutoring group size:

Number of sessions per week:

Length of each session:

Number of weeks:

An RTI Template

T2: Select method for setting long-term instructional goals to ensure appropriateness and ambitiousness:

Chose:

(1) End-year benchmarks: Specify by grade level/content area) OR

(2) Intra-individual: Secondary prevention slope X 1.5 to calculate year-end goal

An RTI Template

T3: Describe the progress-monitoring system for inductively formulating instructional programs:

Assessment and scoring procedures:

Frequency of progress monitoring:

Data-utilization rules for determining when to revise the program:

Data-utilization rules for determining when to increase the goal:

An RTI Template

T4: Describe the progress-monitoring system for assessing response:

Assessment and scoring procedures:

Frequency of progress monitoring:

Number of data points required for making decisions about whether to revise the program of increase the goal:

Number of data points required for making a decision about readiness to re-enter secondary or primary prevention:

Cut-point for making a decision about readiness to re-enter secondary or primary prevention:

Slope (if applicable):

Level (if applicable):

Other (if applicable):

Step 3

- Measure Fidelity of Implementation of Each of the RTI Components
- What Does “Fidelity” Mean across the Components?

Step 4

- Decide on Your Outcomes of Interest and Your Measures

Criteria for Selecting Your Outcomes of Interest

- Importance of the Outcome
- Reliability and Validity
- Efficiency

Advantages and Disadvantages of Different Outcomes

- Number of Referrals to Tertiary Prevention (Special Education)
- Proportion of School Population Identified as Disabled
- Severity of Special Education Students' Academic Difficulties
- Academic achievement of HA, AA, LA Students
- Academic achievement of SWD

Possible Achievement Measures

- State achievement test (year to year)
- Other commercial standardized norm-referenced tests (pre/post each year)
- Brief CBM measures (pre/post each year or more frequently)

CBM Indicators of Reading Competence

- 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

Teacher: ***Read these words.***

Time: 1 minute.

two

for

come

because

last

from

...

Grades 2-3
Passage Reading Fluency

- 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.

CBM Passage Reading Fluency

- 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

Grades 4-6
Maze Fluency

- Number of words replaced correctly in 2.5 minutes on end-of-year passages from which every 7th 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

Go forward

CBM Indicators of Math Competence

- At each grade level, the items on the test systematically sample the skills expected for mastery at the end of the year.

Kindergarten
Computation

Test 1

Name: _____ Date: _____

* * * * ____	* * + * = ____	4 - 2 = ____	Cross out 2 *. * * * * ____
Cross out 4 *. * * * * * * * * ____	* * * * * ____	* + * * * * ____	0 + 4 = ____
2 + 2 = ____	5 - 1 = ____	Cross out 1 *. * * * ____	* + * * * = ____
3 - 3 = ____	Cross out 3 *. * * * * * * * * * * ____	1 + 4 = ____	* * * * * * * * * ____
* * * * + * * = ____	1 + 1 = ____	* ____	5 - 3 = ____

Kindergarten
Number Sense

Test 1

Name: _____ Date: _____

1) Which number is smaller? | 4 | 0 |

2) What number goes on the blank?

3) Put these numbers in counting order:

20 19 18 _____

4) Which number is closer to the number **3** ? **7** or **2**

5) Finish the pattern:

22	2	22	2	

6) What number comes next when you are counting backward?

13, _____

7) What is the name of this shape?

_____

Test 1

Computation 1

Name: _____ Date: _____

A 0 + 3	B 9 - 7	C 0 + 7	D 54 +33	E 7 + 3
F 10 - 0	G 8 + 1	H 2 + 5	I 6 - 3	J 8 - 5
K 11 - 1	L 8 - 1	M 10 - 7	N 2 6 +1	O 6 - 2
P 65 +23	Q 45 - 4	R 5 + 1	S 8 1 +1	T 7 - 5
U 8 + 1	Y 99 - 8	W 10 - 3	X 7 + 3	Y 9 +1

Name _____ Date _____ Test 1 Page 1

Column A — Applications 1 — Column B

(1)

Tickets Sold

Jenny ▭ ▭ ▭ ▭ ▭

Antonio ▭ ▭ ▭

Alex ▭ ▭ ▭ ▭

Krystal ▭ ▭

▭ = 1 ticket

How many tickets did Krystal sell?

_____

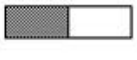
(2)

What number comes after 28?

28 _____

(3)

Write the letter for the shaded part in each blank.



(A) $\frac{1}{2}$

_____ (B) $\frac{1}{4}$

_____ (C) $\frac{1}{3}$

(4)

Of these numbers,

71 34 39

_____ is the smallest.

_____ is the largest.

(5)

Write + or - in the blank.

5 _____ 2 = 7

(6)

A B C D E F G H I J K L

Write the ninth letter. _____

(7)

Write the time.

___ : ___

Test 1

Computation 3

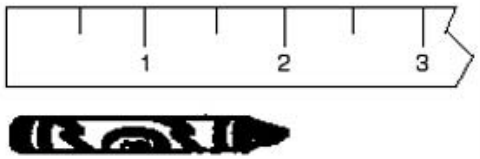
Name: _____ Date: _____

A 7×8	B $684 + 97$	C 5×1	D 2×5	E $7\overline{)14}$
F $230 + 968$	G $53 - 28$	H 9×6	I $2\overline{)4}$	J 4×3
K 34×2	L 78×9	M $8\overline{)32}$	N $300 - 136$	O $2\overline{)8}$
P $328 - 74$	Q $7\overline{)49}$	R 0×9	S 2×3	T 0×4
U $2\overline{)6}$	Y 8×1	W $74 + 54$	X $81 - 55$	Y $604 - 237$

Name _____ Date _____ Test 1 Page 1

Column A — Applications 3 — Column B

(1)
Measure to the nearest inch.



_____ in.

(2)
Write a letter in the blank.

About how much does a large cat weigh?

(A) 5 mg

(B) 5 g

_____ (C) 5 kg

(3)
Write the answer in the blank.

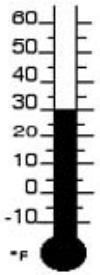
Bill collected 156 baseball cards. After his brother gives him 35 more cards, how many baseball cards does Bill have in all?

_____

(4) Write the time.

___ : ___

(5)
What is the temperature?



_____ °F.

(6) Write **<**, **>**, or **=** in each blank.

$\frac{1}{3}$ ____ $\frac{2}{3}$

$\frac{3}{4}$ ____ $\frac{2}{4}$

(7)
Write the number in the blank.

_____ seven hundred thirty-six

(8)
Write the letter **E** next to even numbers and the letter **O** next to odd numbers.

____ 18 ____ 7

Test 1

Computation 6

Name: _____ Date: _____

A $\frac{3}{5} - \frac{1}{3} =$	B 2.66×5.4	C $5\frac{3}{5} - 3\frac{4}{5} =$	D $15961 + 92307$	E $43245 - 20568$
F $2.591 - 7.6588$	G $65983 + 56937$	H $.13\overline{)720}$	I $122\overline{)8614}$	J $3 \times \frac{1}{2} =$
K 5952×246	L $7\frac{4}{7} + 1\frac{2}{3} =$	M $45\overline{)65}$	N $3\frac{1}{3} + 8\frac{2}{3} =$	O $3.4423 - 1.33$
P $\frac{2}{5} \times \frac{2}{5} =$	Q $81\overline{)9301}$	R $\frac{3}{4} \div \frac{7}{9} =$	S $1.3\overline{).598}$	T $\frac{7}{9} + \frac{2}{3} =$
U 3596×168	Y $7 \div \frac{2}{5} =$	W 5952×246	X $9\frac{3}{7} - 3\frac{4}{7} =$	Y $55867 - 32719$

Name _____ Date _____ Test 1 Page 1

Applications 6

Column A

(1)

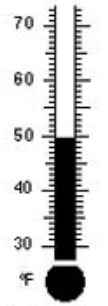
Write **P** if the number is a prime number and **C** if the number is a composite number.

____2 ____94

(2)

7^2 = ____

(3)



last night's temperature

When Emily woke up, the temperature was 42° F. By how many degrees did the temperature fall?

_____ ° F

(4)

Which expression matches the phrase:

The difference between y and 19?

(A) y - 19

(B) $\frac{19}{y}$

_____ (C) y + 19

If y = 25, then the value of the expression is

Column B

(5)

Rename if necessary.

3 m 92 cm
+ 7 m 15 cm

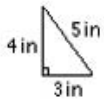
___m ___cm

(6)

15 girls wore pink dresses, 25 wore blue dresses, 7 wore purple dresses and 2 wore green dresses. Write the ratio of green dresses to purple dresses, using the word "to."

_____

(7)



(A) acute
(B) obtuse
(C) right

What kind of triangle? _____

(8)

Express 7% as:

a decimal _____

a fraction with denominator of 100 _____

(9)

2:5 is the same as ___:15

Step 5: Attributing Effects to RTI with Quasi-Experimental Designs

- Importance of exploring cause and effect
  - If outcomes of interest are positive, you need to know why
  - If negative, you need to know why

Attributing Effects…

- The need of a comparison group to control:
  - Historical effects
  - Maturation effects
  - Testing effects
  - Multiple treatment effects

Attributing Effects…

- Comparison groups within a school
- Comparison groups within a district
- Comparison groups within a state

Attributing Effects…

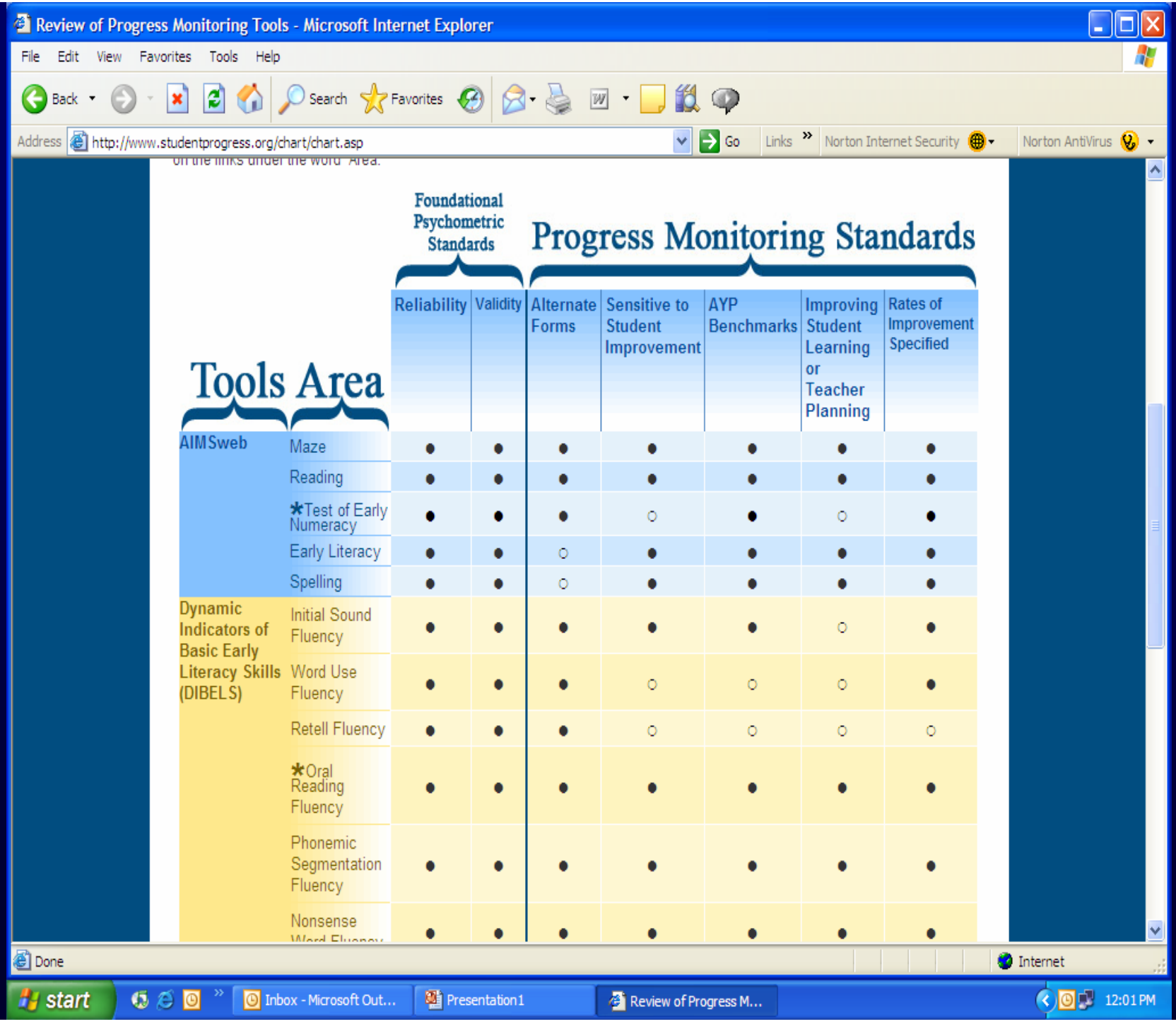
- Effective prevention: How big must a difference be between RTI and comparison groups?
- “Effective” identification: Prevalence, sensitivity, specificity

For Information about the OSEP LD Initiative

- www.NRCLD.org
- www.air.org/ldsummit/
- www.ld.org/advocacy/CommonGround.doc
- 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

Go to www.studentprogress.org


Review of Progress Monitoring Tools - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://www.studentprogress.org/chart/chart.asp
Go Links Norton Internet Security Norton AntiVirus
on the links under the word "Area."
Foundational Psychometric Standards
Progress Monitoring Standards
Tools Area
Reliability
Validity
Alternate Forms
Sensitive to Student Improvement
AYP Benchmarks
Improving Student Learning or Teacher Planning
Rates of Improvement Specified
AIMSweb
Maze
Reading
*Test of Early Numeracy
Early Literacy
Spelling
Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
Initial Sound Fluency
Word Use Fluency
Retell Fluency
*Oral Reading Fluency
Phonemic Segmentation Fluency
Nonsense
Done
Internet
start
Inbox - Microsoft Out...
Presentation1
Review of Progress M...
12:01 PM

For Information about Progress Monitoring, Training & Research

- National Center for Student Progress Monitoring
  - www.studentprogress.org
  - studentprogress@air.org
- National Research Center on Learning Disabilities
  - www.nrcld.org

2007 Summer Institute on Student Progress Monitoring

Save the Date

July 10-11, 2007

Nashville, TN

More details at

www.studentprogress.org