Using Response to Intervention Data in Evaluating Students Suspected of Having Specific Learning Disabilities

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What is RTI?

Think-Pair-Share

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Response to Intervention

IDEAs
that Work

AMERICAN
INSTITUTES
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Why RTI?

- Sustained improvements in academic performance
- Decreased expulsion, behavioral referral and suspension rates
- Decreased inappropriate special education referral and placement rates

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Defining RTI

Response to intervention (RTI) integrates assessment and intervention within a school-wide, multi-level prevention system to maximize student achievement and reduce behavior problems.

(National Center on Response to Intervention)

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Defining RTI

With RTI, schools identify students at-risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust the intensity and nature of those interventions based on a student's responsiveness, and RTI may be used as part of the determination process for identifying students with specific learning disabilities or other disabilities.

(National Center on Response to Intervention)

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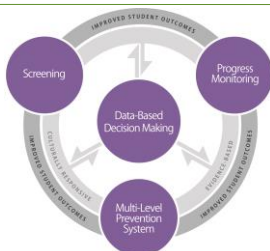
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RTI as a Preventive Framework

- RTI is a multi-level instructional framework aimed at improving outcomes for ALL students.
- RTI is preventive and provides immediate support to students who are at-risk for poor learning outcomes.
- RTI may be a *component* of a comprehensive evaluation for students with learning disabilities.

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Essential RTI Components

- Screening
- Progress Monitoring
- School-wide, Multi-level Prevention System
  - Primary Level (a.k.a. Level 1, Core instruction for all)
  - Secondary Level (a.k.a. Level 2, Strategic instruction)
  - Tertiary Level (a.k.a. Level 3, Intensive instruction)
- Data-Based Decision Making for:
  - Instruction
  - Movement within the multi-level system
  - Disability identification (in accordance with state law)

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Essential Components of RTI

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Essential Component

SCREENING

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Screening

- PURPOSE: identify students who are at-risk for poor learning outcomes
- FOCUS: all students
- TOOLS: brief assessments that are valid, reliable, and demonstrate Classification Accuracy for predicting learning or behavioral problems
- TIMEFRAME: administered more than one time per year (e.g., Fall, Winter, Spring)

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Screening

Answers the questions:

- Is our core curriculum and instruction effective?
- Which students need additional assessment and instruction?

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Questions to ask: Screening Tools

- What tools do you use for screening?
- What evidence do you have that supports the reliability of your screening tools?
- What evidence do you have that supports the validity of your screening tools?
- What do you think about the accuracy of your screening tools in predict students' risk status?
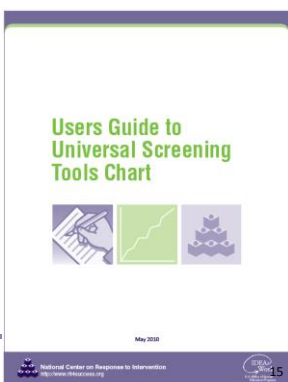
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Questions to ask:
Screening Process

- ✦ Which students participate in screening (grade levels and groups)?
- ✦ How often is screening conducted?
- ✦ What procedures do you use to ensure implementation accuracy (i.e. universal, accurate administration, scoring, and accurate use of cut points to identify students)?

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Resources for Screening

- ✦ Ratings of Screening Tools:

http://www.rti4success.org/screeningTools

- ✦ Self-Paced Training Modules:

http://www.rti4success.org/rti-implementer-series-self-paced-learning-modules/screening.

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The NCRTI Screening Tool Chart User Guide

**Users Guide to
Universal Screening
Tools Chart**

May 2010

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http://www.rti4success.org

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Essential Components of RTI

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Essential Component

PROGRESS MONITORING

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Progress Monitoring

- PURPOSE: monitor students' response to primary, secondary, or tertiary instruction in order to estimate rates of improvement, identify students who are not demonstrating adequate progress, and compare the efficacy of different forms of instruction

- FOCUS: students identified through screening as at-risk for poor learning outcomes

- TOOLS: brief assessments that are valid, reliable, and evidence-based

- TIMEFRAME: students are assessed at regular intervals (e.g., weekly, biweekly, or monthly)

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Progress Monitoring

Answers the questions:

- Are students meeting short- and long-term performance goals?
- Are students making progress at an acceptable rate?
- Does the instruction need to be adjusted or changed?

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Progress Monitoring

- ✦ Progress Monitoring Tools
- ✦ Frequency of Monitoring
- ✦ Administration Process

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Progress Monitoring Tools Progress Monitoring

- What tools do you use to monitor student progress?
- How many alternate forms (of equal and controlled difficulty) are available?
- How do you determine minimum acceptable growth?
- How do you determine acceptable end of the year performance?
- What evidence do you have to suggest that performance level data are reliable?

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Frequency of Monitoring Progress Monitoring

❑ How often are students at the **primary** level progress monitored?

❑ How often are students at the **secondary** level progress monitored?

❑ How often are students at the **tertiary** level progress monitored?
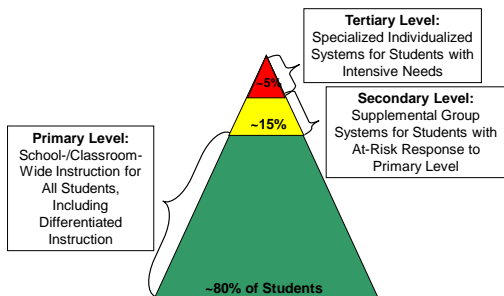
Administration Process Progress Monitoring

❑ Describe the process used for administering progress monitoring.

❑ How do you ensure that progress monitoring probes are administered using a standard procedure?

Essential Component

SCHOOL-WIDE, MULTI-LEVEL PREVENTION SYSTEM

Multi-level Prevention System

Tertiary Level: Specialized Individualized Systems for Students with Intensive Needs

~5%

Secondary Level: Supplemental Group Systems for Students with At-Risk Response to Primary Level

~15%

Primary Level: School-/Classroom-Wide Instruction for All Students, Including Differentiated Instruction

~80% of Students

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Primary Level

- FOCUS: all students
- INSTRUCTION: District curriculum and instructional practices that are research based; aligned with state or district standards; incorporate differentiated instruction
- SETTING: general education classroom
- ASSESSMENTS: screening, continuous progress monitoring, and outcome measures

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Multi-level prevention system

+ *The framework includes a school-wide, multi-level system for preventing school failure.*
  + Primary Level
    + Research-Based Curriculum Materials
    + Fidelity
    + Articulation of Teaching and Learning (in and across grade levels)
    + Instruction
    + School-based PD

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What is Implementation Fidelity?

- the degree to which a planned intervention is implemented as designed (Gresham, 1989).
- intervention adherence – degree to which an interventionist is committed to implement a specific treatment and actively demonstrates intervention-related behaviors (Meichenbaum & Turk, 1987; Telzrow & Beebe, 2002).

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Intervention, Educator, and Student Characteristics that Influence Integrity
(Roach & Elliott, 2008, in Best Practices in School Psychology V)

Characteristics	Factors that facilitate integrity	Factors that discourage integrity
Intervention	•Acceptability of intervention •Rate of behavior change produced by intervention	•Complexity •Multiple resources required •Time required for implementation
Educator	•Level of training/education •Motivation	•Resistance •Diversity of students worked with •Familiarity with other interventions that address the same problem
Student	•Motivation •Cooperation	•Difficult behavior or anger/hostility •Severity or duration of problem.

Evaluating Fidelity of RTI Systems

- Address all main components of RTI, (i.e., universal screening, high-quality instruction, progress monitoring, and data-based decision making).
- Although school personnel might implement one component (e.g., high-quality instruction) correctly, it is possible that they might not implement another component (e.g., progress monitoring) with fidelity.
- Also important to monitor the fidelity of implementation in each of the three tiers.

http://iris.peabody.vanderbilt.edu/rti_leaders/rti_leaders_18.html

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NRCLD RTI Manual, Section 4

Figure 4.1. Three Dimensions of Ensuring Fidelity

Frequency
- Experience Level
- Support Requests
- Class Performance
- Special Education Referrals

Indicators

Method
- Direct Assessment
- Indirect Assessment

Support Systems
- Professional Development
- Resource Allocation
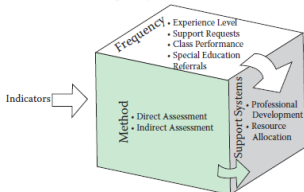
National Research Center on Learning Disabilities • www.nrcld.org • August 2006

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Method (as planned by RTI team)

- Direct assessment occurs when a qualified individual (e.g., RTI coach, principal) observes a staff member and records his or her behavior (instructional, assessment-related, or decision-making) on a standard checklist.
- Indirect assessment can take place through a variety of means, including self-reports, interviews, student work samples, and an interpretation of existing data (e.g., universal screening results).

http://iris.peabody.vanderbilt.edu/rti_leaders/rti_leaders_18.html

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Sample Fidelity Forms

- Most programs have observation checklists.
- Handout: Lane, K.L. & Beebe-Frankenberger, M. (2003). *School-based interventions: The tools you need to succeed*. Allyn & Bacon

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Frequency varies depending upon situation (NRCLD, 2006)

- The fidelity of implementation needs to be checked regularly, at a minimum three times per year (coinciding with the universal screenings).
- The frequency of data collection will depend on factors such as:
  - Teachers' experience levels
  - Teachers' requests for help or instruction
  - Outcomes of previous fidelity checks

http://iris.peabody.vanderbilt.edu/rti_leaders/rti_leaders_18.html

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Support Systems

- Support systems in schools need to serve two purposes:
  - Providing ongoing professional development and support
  - Allocating resources that enable teachers to implement RTI
- Supports can result from both proactive and reactive responses:
  - (Proactive) Assess teachers' needs at the start of the RTI implementation, and provide training and resources accordingly.
  - (Reactive) Provide additional professional development, in the form of coaching or mentoring, if the fidelity data indicate that a teacher is not implementing the RTI procedures correctly.

http://iris.peabody.vanderbilt.edu/rti_leaders/rti_leaders_18.html

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NRCLD, 2006

Figure 4.2. Fidelity of Implementation (Sample Application of the Three-Dimensional Model)

	Indicator	Method of Evaluation	Frequency	Support System
New Staff	Hire new staff	Direct observations	Ideally 3 times/ year, once early on	Pairing with mentor/coach, provide training in curriculum program
Screening Results	Class average lower than school average, larger number of students identified as "at risk"	Direct observations to review data, review teacher logs, review any supporting evidence from parents, and review student work samples	Same schedule as screening - ideally 3 times/year	Teacher works with mentor coach to problem solve, identify areas of strength and weakness, and provide training opportunities
Teacher Evaluations	Observation/ evaluation highlights deficiency in instructional methods	Follow-up observations, dialogues with teachers, teacher logs/ self-reports	As needed	Identify problem to either require professional development and/or re-allocation of resources

Primary Level Prevention:
Articulation of Teaching and Learning

- (1) Teaching and learning is well articulated from one grade to another;
- (2) Teaching and learning is well articulated within grade levels so that students have highly similar experiences, regardless of their assigned teacher.

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Articulation of Teaching and Learning

- Means:
  - PLCs
  - Shared Data Meetings
  - Permanent Products
  - Link between Fidelity Checks and Planned Professional Development

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What Are Differentiated Learning Activities?

- Offers students in the same class different teaching and learning strategies based on
  - Student assessment data and knowledge of student readiness
  - Learning preferences,
  - Language and culture

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What Are Differentiated Learning Activities?

- Involves
  - Mixed instructional groupings,
  - Team teaching,
  - Peer tutoring,
  - Learning centers, and
  - Accommodations to ensure that all students have access to the instructional program
- Is NOT the same as providing more intensive interventions to students with low achievement or learning disabilities. See "High Quality Math Instruction" in link below.

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Connecting to Practice Guidelines for SLD Evaluation

- WAC **392-172A-03060 states that schools must show that** "the student's general education core curriculum instruction provided the student the **opportunity** to increase her or his rate of learning."
- Consider how PLC documentation and connection to Articulation of Teaching and Learning may help.

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Secondary Level

- FOCUS: students identified through screening as at-risk for poor learning outcomes
- INSTRUCTION: targeted, supplemental evidence-based instruction delivered to small groups
- SETTING: general education classroom or other general education location within the school
- ASSESSMENTS: progress monitoring, diagnostic

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Secondary Level Instruction

- Evidence based
- Aligns with and supports core instruction
- Implementation fidelity based on developer guidelines.
- Delivered by well-trained staff in optimal group sizes
- Decisions are based on valid and reliable data and criteria are implemented accurately.
- Supplements core instruction

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Tertiary Level

- FOCUS: students who have not responded to primary or secondary level prevention
- INSTRUCTION: intensive, supplemental evidence-based instruction delivered to small groups or individually
- SETTING: general education classroom or other general education location within the school
- ASSESSMENTS: progress monitoring, diagnostic

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Tertiary Level Instruction

- Evidence based or based on validated progress monitoring methods for individualizing instruction
- More intense than secondary
- Implementation fidelity
- Delivered by well-trained staff in optimal group sizes
- Decisions are based on valid and reliable data, and criteria are implemented accurately.
- Address general education curriculum in appropriate manner for students.

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Changing the Intensity and Nature of Instruction

- Intervention
- Duration
- Frequency
- Interventionist
- Group size

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Essential Component

DATA-BASED DECISION MAKING

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Data-Based Decision Making: The Basics

- Analyze data at all levels of RTI implementation (e.g., state, district, school, grade level) as well as all levels of prevention (e.g., primary, secondary, tertiary)
- Establish routines and procedures for making decisions
- Set explicit decision rules for assessing student progress (e.g., state and district benchmarks, level and/or rate)
- Use data to compare and contrast the adequacy of the core curriculum and the effectiveness of different instructional and behavioral strategies

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Data-Based Decision Making:
Types of Decisions

- Instruction
- Movement within the multi-level prevention system
- Disability identification (in accordance with state law)

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Leadership Team Questions for RTI

1. Is our core program sufficient?
2. If the core program is not sufficient, what led to this?
3. How will the needs identified in the core program be addressed?
4. How will the sufficiency and effectiveness of the core program be monitored over time?
5. Have improvements to the core program been effective?

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Leadership Questions (continued)

6. For which students is the core instruction sufficient or not sufficient? Why or why not?
7. What specific supplemental and intensive instructions are needed?
8. How will specific supplemental and intensive instruction be delivered?
9. How will the effectiveness of supplemental and intensive instruction be monitored?
10. How will you determine which students need to move to a different level of instruction?

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Overarching Factors

+ Preventive Focus
+ Leadership
+ Professional Development
+ Partnering with Parents
+ Culturally Responsive Practice

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RTI in VPS

Three Year Implementation Data

DIBELS-Cohort One, RTI vs. non RTI
2011/2012, End of Year Testing

Cohort One (3 years, consistent implementation)
▸ 10.5 % increase in scores from beginning of year

District (Cohort One factored out)
▸ 6.83 % increase in scores from beginning of year

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2012 End of Year Testing Results Summarized

Combined Grade Level RTI % improvement over non-RTI

- **MSP Reading**   **1.31%**
- **MSP Math**   **2.72%**
- **DIBELS**   **3.67%**

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Title Schools: Spring 2012
RTI vs. Non-RTI with Similar Demographics

Test:	Non-RTI	RTI	RTI Difference
MSP Reading	52.31%	58.43%	6.12%
MSP Math	49.88%	53.97%	4.09%
DIBELS	57.40%	60.27%	2.87%

Demographics considered free/reduced lunch levels, ELL, Special education, and size of school using 3 control schools and 3 RTI schools

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Spring Benchmarking, 2012 Title Schools with Similar Demographics
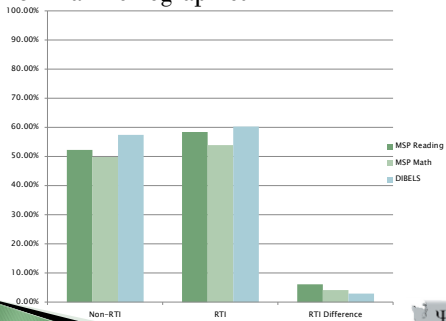
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RBA, Fall, 2012
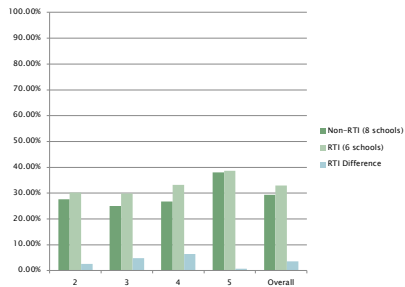
MBA, Fall, 2012
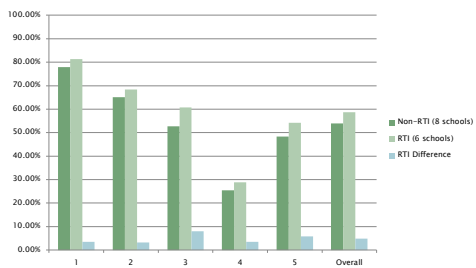
DIBELS, Winter, 2012/13
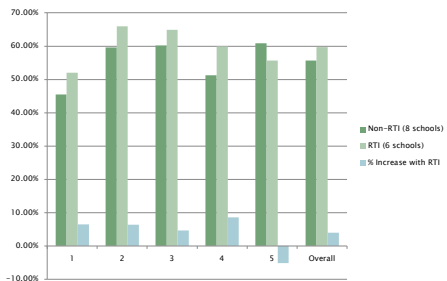
OVERVIEW & PURPOSE OF PROGRESS MONITORING

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Progress Monitoring

+ Standardized type of **formative assessment**
+ Allows you evaluate progress over time to determine:
    + Student response to instruction/intervention
    + Instructional effectiveness for groups & individuals
    + SLD eligibility (in accordance with law)

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Screening v. Progress Monitoring

+ "Close Cousins"
+ Often the same measures used
+ In some publications, you may see screening described as a *type* of progress monitoring.
+ Within **RTI** it is important to differentiate:
    + **Universal Screening**, which is for all students from
    + **Progress Monitoring,** which is for some students who have been identified as at-risk for poor academic or behavioral outcomes.

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Why Progress Monitoring?

- Progress monitoring research has been conducted over the past 30 years
- Research has demonstrated that when teachers use progress monitoring for instructional decision making:
  - Students learn more
  - Teacher decision making improves
  - Students are more aware of their performance

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Progress Monitoring

- PURPOSE: monitor students' response to primary, secondary, or tertiary instruction in order to estimate rates of improvement, identify students who are not demonstrating adequate progress, and compare the efficacy of different forms of instruction
- FOCUS: students identified through screening as at risk for poor learning outcomes
- TOOLS: brief assessments that are **valid, reliable, and evidence based**
- TIMEFRAME: students are assessed at regular intervals (e.g., weekly, biweekly, or monthly)

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Purpose of Progress Monitoring

Allows practitioners to…

- Estimate rates of improvement
- Identify students who are not demonstrating adequate progress
- Compare the efficacy of different forms of instruction in order to design more effective, individualized instruction

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Estimate Rates of Improvement

6 WRC

.3 WRC

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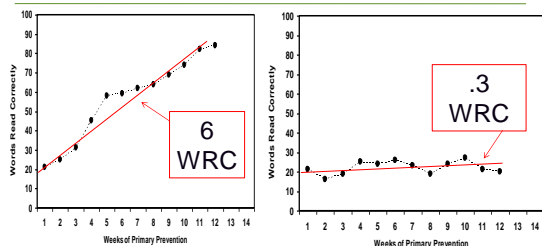
Identify Students Not Making Adequate Progress

Increasing Scores: *Flat Scores:*

trend line

Goal line

Goal line

trend line

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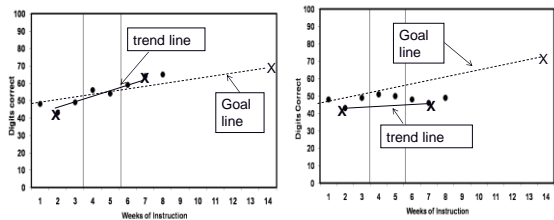
Compare Efficacy of Interventions

Growth by Intervention Type

Intervention A
Intervention B
Intervention C

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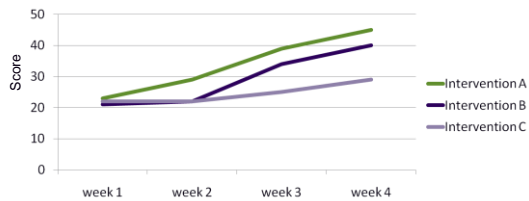
Thus, Progress Monitoring Tools Should...

+ Be valid and reliable for both:
    + Level (i.e., that performance at a specific time point is stable and predicts end-end-of year achievement)
    AND
    + Growth (i.e., that rate of improvement is also stable and predictive of end-of-year achievement)
+ Use standardized administration & scoring procedures
+ Have alternate forms of comparable difficulty

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When appropriate measures are used, progress monitoring can help determine...

- Are students making progress at an acceptable rate?
- Are students meeting short- and long-term performance goals?
- Does the instruction or intervention need to be adjusted or changed?

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THINK-PAIR-SHARE

- How is progress monitoring being used in your district?

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Should my assessment tool be used for progress monitoring?

Although a many assessments provide useful information and may be part of your broad approach to **formative assessment**, consider the following when deciding whether a tool should be used for **progress monitoring** within your RTI system...

- Are there standardized administration & scoring instructions?
- Are parallel/alternate forms available to allow for repeated assessment?
- Is there evidence of reliability & validity of **performance level**?
- Is there evidence or reliability & validity of the **slope** (i.e., growth rate)?

The Progress Monitoring Tools Chart can help you answer these questions!

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NCRTI Progress Monitoring Tools Chart

Progress Monitoring General Outcome Measures Tools Chart

View the Progress Monitoring Mastery Measures Tools Chart

Subject: [Select Subject] Grade: [Select Grade]   [Filter]   [Reset]

Tools	Area	Reliability of the Performance Level Score	Reliability of the Slope	Validity of the Performance Level Score	Predictive Validity of the Slope of Improve- ment	Alternate Forms	Sensitive to Student Improve- ment	End -of- Year Bench- marks	Rates of Improve- ment Specified	Norms Disag- regated for Diverse Populations	Disag- regated Reliability and Validity Data	COMPARE / RESET
AIMSweb	Math	●	●	●	●	◐	◐	●	●	No	●	☐
AIMSweb	Oral Reading	●	●	●	●	●	◐	●	●	No	●	☐
AIMSweb	Test of Early Literacy - Letter Naming Fluency	●	●	●	●	●	◐	●	●	No	●	☐
AIMSweb	Test of Early Literacy - Letter Sound Fluency	●	●	●	●	●	◐	●	●	No	●	☐
AIMSweb	Test of Early Literacy - Nonsense Word Fluency	●	●	●	●	●	◐	●	●	No	●	☐
AIMSweb	Test of Early Literacy - Phonemic Segmentation Fluency	●	●	●	●	●	◐	●	●	No	●	☐
AIMSweb	Test of Early Numeracy - Missing Number	●	●	●	●	●	—	●	●	No	●	☐

www.rti4success.org

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The NCRTI Progress Monitoring Tools Chart Users Guide

Users Guide to Progress Monitoring Tools Chart

May 2010

National Center on Response to Intervention http://www.rti4success.org

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Planning for Progress Monitoring

Timeframe

- Throughout instruction at regular intervals (e.g., weekly, bi-weekly, monthly)

- Teachers use student data to quantify short- and long-term goals that will meet end-of-year goals

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Making Decisions with Progress Monitoring Data

1. Establish Data Review Team
2. Determine Frequency of Data Collection
3. Establish Baseline and Progress Monitoring Level
4. Establish Goal
5. Collect and Graph Data
6. Analyze Data & Make Instructional Decisions
7. Continue Progress Monitoring

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Steps in the Decision Making Process

1. **Establish Data Review Team**
2. Determine Frequency of Data Collection
3. Establish Baseline and Progress Monitoring Level
4. Establish Goal
5. Collect and Graph Frequent Data
6. Analyze and Make Instructional Decisions
7. Continue Progress Monitoring

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Data Review Teams

- Include at least three members
- Plan meetings to regularly review PM data (e.g., every four to six weeks)
- Follow established systemic data review procedures
  - Many schools have established agendas
  - Resources are available online

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Roles and Responsibilities of Team Members

- Ensure progress monitoring data are accurate
  - Administration & scoring training
  - Monitor fidelity of implementation
  - Provide additional training as needed
- Review progress monitoring data regularly
- Identify students in need of supplemental interventions
- Evaluate efficacy of supplemental interventions

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Plan to Regularly Review Progress Monitoring Data

- Conduct at logical, predetermined intervals
- Schedule prior to the beginning of instruction
- Involve relevant team members
- Use established meeting structures
  - Standard Agenda
  - Minutes assigned to each section to be covered
  - Rules about individual student v. group discussions

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Establish Systematic Data Review Procedures

- Articulate routines and procedures in writing
- Implement established routines and procedures with integrity
- Ensure routines and procedures are culturally and linguistically responsive
  - Limit time spent "admiring data"
  - Discuss intervention/accommodation options that school staff have at their disposal

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Establish Systematic Data Review Procedures

Consider clarifying the following in writing:

- What you are looking for?
- How will you look for it?
- How will you know if you found it?

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Think-Pair-Share

- In your school sites…
  - Who should be involved in the review of progress monitoring data?
  - What data review schedule is available?
  - How should meetings be facilitated?

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Steps in the Decision Making Process

1. Establish Data Review Team
2. **Determine Frequency of Data Collection**
3. Establish Baseline and Progress Monitoring Level
4. Establish Goal
5. Collect and Graph Frequent Data
6. Analyze and Make Instructional Decisions
7. Continue Progress Monitoring

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Frequency of Progress Monitoring

IDEAL   vs.

FEASIBLE

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Frequency of Progress Monitoring

- Should occur **at least** monthly.
  - Ideal: 2x per month at secondary level
  - Ideal: 1-2 x per week at tertiary level

- As the number of data points increases, the effects of measurement error on the trend line decreases.

- Christ & Silberglitt (2007) recommended six to nine data points.

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Frequency of Progress Monitoring

Number of assessments/15 weeks	Effect Size (SD)	Percentile Gain
0	0	0
1	.34	13.5
5	.53	20
10	.60	22.5
15	.66	24.5
20	.71	26
25	.78	28.5
30	.82	29

Bangert-Drowns, R. L., Kulik, J. A., & Kulik, C.-L. C. (1991). Effects of frequent classroom testing. Journal of Educational Research, 85, 89-99.

Similar results found by Fuchs & Fuchs (1986)

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Steps in the Decision Making Process

1. Establish Data Review Team
2. Determine Frequency of Data Collection
3. **Establish Baseline and Progress Monitoring Level**
4. Establish Goal
5. Collect and Graph Frequent Data
6. Analyze and Make Instructional Decisions
7. Continue Progress Monitoring

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Establishing the Baseline Score

- To begin progress monitoring you need to know the student's initial knowledge level or baseline knowledge
- Having a stable baseline is important for goal setting
- To establish the baseline use the median scores of three probes. (You may choose to use screening data for this, if progress monitoring occurs at the student's chronological grade level.)

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Example: Finding the Baseline Score

83 / 2 wrc   72 / 7 wrc   79 / 6 wrc

Median is preferred to a measure of the average score because averages are susceptible to outliers when dealing with small number sets. Stable baselines are important in goal setting.

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THINK-PAIR-SHARE

- What is Billy's baseline score?
  - 97/3 wrc
  - 88/2 wrc
  - 96/6wrc

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Other Approaches

- Monitor student over time (e.g., three data points over three weeks) to establish stable baseline. Take the average of the scores.

Baseline Average
8 +9+10 / 3 = 9 WRC

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Progress Monitoring Grade Level

- When possible, assess students at their chronological grade level
- The goal should be set where you expect the student to perform at the end of the intervention period
- Off grade-level assessment may be used with students performing below grade level.
  - Many PM tools have specific procedures for appropriately placing students.
  - Screening data should still be collected at grade level, however.

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Steps in the Decision Making Process

1. Establish Data Review Team
2. Determine Frequency of Data Collection
3. Establish Baseline Data and Progress Monitoring Level
4. **Establish Goal**
5. Collect and Graph Frequent Data
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Set Goals Based on Logical & Research-Based Practices

Stakeholders should know…

- **Why** and **how** the goal was set
- **How long** the student has to achieve the goal
- What the student is **expected to do** when the goal is met

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Trend Line, Slope, and ROI

- **Trend Line –** a line through the scores that visually represents the performance trend
- **Rate of Improvement (ROI)** - specifies the improvement, or average weekly increases, based on a line of best fit through the student's scores.
- **Slope –** quantification of the trend line, or the rate of improvement (ROI)

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Option 1: Using Benchmarks

End-of-year benchmarking steps:
- Identify appropriate grade-level benchmark
- Mark benchmark on student graph with an X
- Draw goal line from first three CBM scores to X

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Goal Setting Approaches

Three options for setting goals:
1. End-of-year benchmarking
2. National norms for weekly rate of improvement (slope)
3. Intra-individual framework (Tertiary)

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Option 1: Setting Goals with End-of-Year Benchmarking

Option 2: Setting Goals With National Norms for Weekly Improvement (slope)

Grade	Reading—Slope	Computation CBM—Slope for Digits Correct	Concepts and Applications CBM—Slope for Points
1	1.8 (WIF)	.35	No data available
2	1.5 (PRF)	.30	.40
3	1.0 (PRF)	.30	.60
4	.40 (Maze)	.70	.70
5	.40 (Maze)	.70	.70
6	.40 (Maze)	.40	.70

Note: These figures may change pending additional RTI research.

Option 2: Setting Goals With National Norms for Weekly Improvement (slope)

Standard Formula for Calculating Goal Using Rate of Improvement (ROI):

((ROI) x (# Weeks)) + Baseline Score = GOAL

Option 2: Setting Goals With National Norms for Weekly Improvement

Grade	Reading—Slope	Computation CBM—Slope for Digits Correct	Concepts and Applications CBM—Slope for Points
K	No data available	—	—
1	1.8 (WIF)	0.35	No data available
2	1.5 (PRF)	**0.30**	0.40
3	1.0 (PRF)	0.30	0.60
4	0.40 (Maze)	0.70	0.70
5	0.40 (Maze)	0.70	0.70
6	0.40 (Maze)	0.40	0.70

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Note: These figures may change pending additional RTI research.
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Option 2: Setting Goals With National Norms for Weekly Improvement
Handout 2 Answer - Jane

1. Establish (baseline): Baseline = (12 + 10 + 12) ÷ 3 = 11.33
2. Find the appropriate norm from the table: 0.30
3. Multiply norm by number of weeks left in year: 0.30 × 17 = 5.1
4. Add sum from #3 to baseline: 5.1 + 11.33 = 16.43
5. Mark goal (16.43 ~ 16) on student graph with an X
6. Draw goal line from baseline

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Option 2: Setting Goals with National Norms for Weekly

11.33 + (.30 x 17 weeks) = Goal
11.33 + 5.1 = 16.43
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Rates of Weekly Improvement

Three things to keep in mind when using ROI for goal setting:

1. What research says are "realistic" and "ambitious" growth rates
2. What norms indicate about "good" growth rates
3. Local versus national norms

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Rates of Weekly Improvement

Three things to keep in mind when using ROI for goal setting:

1. What research says are "realistic" and "ambitious" growth rates
2. What norms indicate about "good" growth rates
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Option 3: Setting Goals With Intra-Individual Framework (Tertiary)

Intra-individual framework

- Identify weekly rate of improvement (slope) using at least eight data points
- Multiply slope by 1.5
- Multiply by number of weeks until end of year
- Add to student's baseline score
- This is the end-of-year goal

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Considerations for using the Intra-Individual Framework

→ Typically used for setting IEP goals and is not very appropriate for students performing at or near grade level.

→ Since the student's performance is being compared to his/her previous performance (not a national or local norm) we need to have enough data to demonstrate the existing performance level or rate, which is why at least 8 data points are needed.

→ Recommended data collection **2x per week** to obtain sufficient data points when this option is used.

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Progress Monitoring Data May Inform Specific Learning Disability Eligibility

Criteria Related to Progress Monitoring

To ensure that underachievement in a child suspected of having a specific learning disability is not due to lack of appropriate instruction in reading or math, the group must consider, as part of the evaluation described in 34 CFR 300.304 through 300.306:

▪ Data that demonstrate that prior to, or as a part of, the referral process, the child was provided appropriate instruction in regular education settings, delivered by qualified personnel; and

▪ Data-based documentation of **repeated assessments of achievement at reasonable intervals, reflecting formal assessment of student progress during instruction, which was provided to the child's parents**.

(www.idea.ed.gov)

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Decision Rules Based on Four-Point Method

▪ If **three weeks** of instruction have occurred AND at least **six data points** have been collected, examine the four most recent data points.

  • If all four are above goal line, increase goal.

  • If all four are below goal line, make an instructional change.

  • If the four data points are both above and below the goal line, keep collecting data until trend line rule or four- point rule can be applied.

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Decision Rules Based on the Trend Line

- If **four weeks** of instruction have occurred AND at least **eight data points** have been collected, figure trend of current performance and compare to goal line.
- Calculate by hand or by computer.
- Like with the four-point method, more frequent data collection will allow for more timely decisions!

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Decision Rules Based on Four-Point Method

- If **three weeks** of instruction have occurred AND at least **six data points** have been collected, examine the four most recent data points.
  - If all four are above goal line, increase goal.
  - If all four are below goal line, make an instructional change.
  - If the four data points are both above and below the goal line, keep collecting data until trend line rule or four- point rule can be applied.

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Slope and Level Comparisons

- Consider < 10th percentile in Grade Level Norms for Level: R–CBM (ORF), MAZE
- Consider <10th percentile in Grade Level Norms for ROI (Slope): R–CBM, MAZE

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January 31, 2014

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AIMSweb®
Eastern Washington University
Year: 2013-2014

AIMSweb® National Norms Table
Reading - Curriculum Based Measurement

Grade	%ile	Fall Num	Fall WRC	Winter Num	Winter WRC	Spring Num	Spring WRC	Group ROI
	90		143		162		179	1.00
	75		116		139		152	1.00
	50		87		111		127	1.11
3	25	40570	59	40570	84	40570	98	1.08
	10		38		56		73	0.97
	Mean		*89*		*110*		*125*	*1.00*
	StdDev		*40*		*41*		*42*	*0.06*

Num = Number of Students **WRC** = Words Read Correct **ROI** = Rate Of Improvement
ROI is Spring Score minus Fall Score (or Winter minus Fall) divided by 36 weeks (or 18 weeks).

SLD Eligibility Guidance from NCRTI

RTI and Learning Disability (LD) Identification
Part I – Regulatory Requirements
http://www.rti4success.org/webinars/video/992%20

RTI and Learning Disability (LD) Identification Part II –
OSEP Policy Letters
http://www.rti4success.org/webinars/video/995%20

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For further questions, contact
sruby@ewu.edu

THANK YOU!

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