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WYOMING
MTSS-PLC
Collaborating to
Improve Learning
for ALL Students

Thursday, December 10^h, 3:30-5:00pm

Topic: Progress Monitoring Process for Tier II

Welcome!

Tentative Agenda

- 3:15 - 3:30 Log-in, Check Microphones and Speakers
- 3:30 – 3:35 Welcome
- 3:35 – 3:50 *Optional Share Progress to Date*: Homework Shareout
- 3:50 – 4:30 *Best Practices in MTSS Implementation*: Progress Monitoring Process for Tier II
- 4:30 - 4:50 *Lessons Learned from the Field*
- 4:50 – 5:00 Closing and Next Steps

Today's Target Areas

- **Progress-Monitoring Process (2b).** Both of the following conditions are met: (1) progress monitoring *occurs at least monthly* for students receiving secondary-level intervention and at least weekly for students receiving intensive intervention; and (2) procedures are in place to ensure *implementation accuracy* (i.e., appropriate students are tested, scores are accurate, decision-making rules are applied consistently).
- **Responsiveness to Secondary and Intensive Levels of Intervention (3c).** Both of the following conditions are met: (1) decisions about responsiveness to intervention are based on reliable and *valid progress-monitoring data that reflect slope of improvement* or progress toward the attainment of a goal at the end of the intervention; and (2) these *decision-making criteria are implemented accurately*.
- **Fidelity (6a).** (2) procedures are in place to *monitor the processes* of administering and analyzing assessments.

Why are we here?

- *A* **professional learning community***, or PLC, is a group of educators that meets regularly, shares expertise and experiences, and works collaboratively to improve learning for all students.*

Progress To Date: Optional Shareout

- Share highlights or challenges from MTSS activities since last meeting
  - HOMEWORK: How does your progress monitoring tools meet the MTSS Fidelity Rubric Criteria?
  - Other progress?
- Please use chat box to ask questions for presenting teams or unmute your mic to ask questions.

Purpose

- Present the progress monitoring progression of PM in Tier II
- Provide a rationale for using validated goal setting strategies.
- Model three validated goal setting strategies.

Tier II Progress Monitoring Process

- UNIVERSAL AND SECONDARY SCREENING: How do we know if the students needs supplemental support?
- GOAL SETTING: Where do you want the students to be at the end of instruction?
- DEVELOP PM SCHEDULE: How will we know if they got there?
- INTERVENTION: What evidenced based intervention is likely to help my student achieve the goal based on expected rate of improvement/effect size?
- ASSESS RESPONSIVENESS: When and how we know if the student is responding?
 - MAKE CHANGES AS NECESSARY

Establishing the Baseline Score

- Establish student's initial knowledge level or baseline knowledge
- Use the median scores of three probes or three consecutive probes
- Ensure a stable baseline before implementation

Progress Monitoring Grade Level

- Should be based on logical practices
- The goal should be set where you expect the student to perform at the end of the intervention period
- Survey level assessment may be used with students performing below grade level

Why does goal setting matter?

Why does goal setting matter?

Goal: 20 WRC
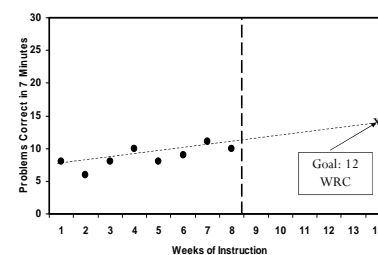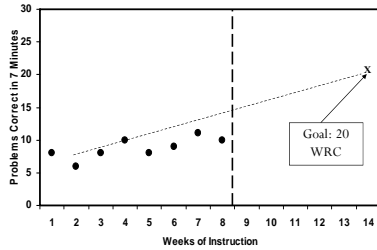
Setting Goals Based on Logical Practices

For SPED eligibility decision making, team members must know…

- **How** the goal was set
- **Why** the goal was set that way
- The **intensity** of the intervention provided to meet the goal

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)

Option 1: Using Benchmarks

End-of-year benchmarking

- Identify appropriate grade-level benchmark
- Mark benchmark on student graph with an X
- Draw goal line from first three CBM scores to X

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

end-of-year benchmark

Goal line

Goal Setting Decisions

Slide 1
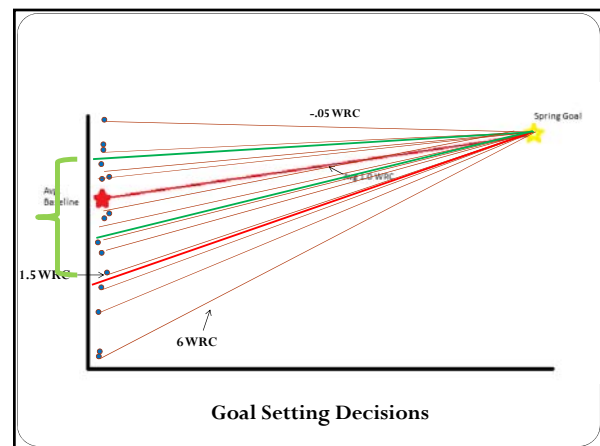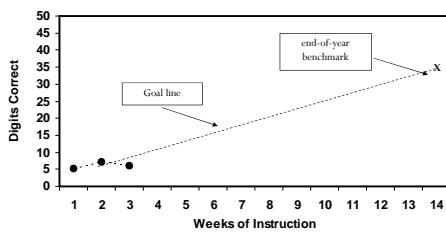
Reading (R-CBM and Maze)

	Grade 1			
	R-CBM		Maze	
	Tier 2	Tier 1	Tier 2	Tier 1
Fall			0	1
Winter	14	30	1	3
Spring	24	53	3	7

	Grade 3			
	R-CBM		Maze	
	Tier 2	Tier 1	Tier 2	Tier 1
Fall	42	77	6	11
Winter	64	105	8	14
Spring	83	119	9	15

Slide 2

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

Slide 3

Option 2: Setting Goals With National Norms for Weekly Improvement Sample

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

Note: These figures may change pending additional RTI research.

Slide 4

AIMSweb® National Norms Table
Reading - Curriculum Based Measurement

Grade	%ile	Fall Num	Fall WRC	Winter Num	Winter WRC	Spring Num	Spring WRC	Group ROI
1	90		67		100		128	1.69
	75		31		68		97	1.83
	50		13		36		67	1.50
	25	491845	6	55158	19	55158	40	0.94
	10		2		11		22	0.56
	Mean		24		47		71	1.31
	StdDev		29		36		40	0.31
2	90		115		140		156	1.14
	75		88		115		131	1.19
	50		62		88		106	1.22
	25	38282	35	38282	64	38282	82	1.31
	10		17		39		59	1.17
	Mean		64		90		106	1.17
	StdDev		37		38		38	0.03
3	90		143		162		179	1.00
	75		116		139		152	1.00
	50		87		111		127	1.11
	25	40570	59	40570	84	40570	98	1.08
	10		30		56		73	0.97
	Mean		89		110		125	1.00
	StdDev		40		41		42	0.06

Slide 5

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

Slide 6

Goal Setting Resources - NCII

Academic Progress Monitoring GOM

This tools chart presents information about academic progress monitoring tools. The three tabs, *Psychometric Standards, Progress Monitoring Standards,* and *Data-based Individualization Standards* include ratings from our TRC members on the technical rigor of the tool. **Additional information** is provided below the chart.

View the **Progress Monitoring Mastery Measures »**

Grade Level: Elementary ▼   Subject: - Any - ▼   Apply

Psychometric Standards | Progress Monitoring Standards | Data-based Individualization Standards

Title ▲	Area	Alternate Forms ⓘ	Sensitive to Student Improvement ⓘ	End-of-Year Benchmarks ⓘ	Rates of Improvement Specified ⓘ
AIMSweb	R-CBM				
AIMSweb	Math Computation				
AIMSweb	Math Concepts and Applications				
AIMSweb	Oral Reading Fluency (R-CBM)				
AIMSweb	Test of Early Literacy - Letter Naming Fluency				
AIMSweb	Test of Early Literacy - Letter Sound Fluency				

Option 3: Setting Goals With Intra-Individual Framework (Tertiary)
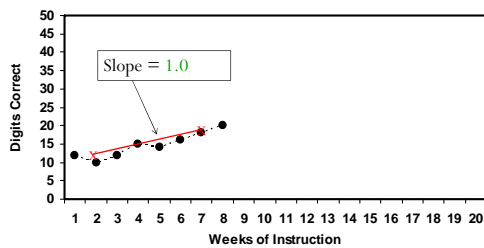
Intra-individual framework
- Identify weekly rate of improvement (slope) using at least eight data points
- Multiply slope by 1.5
- Multiply by number of weeks until end of year or intervention period
- Add to student's baseline score
- This is the end-of-year/intervention period goal

Option 3: Setting Goals With Intra-Individual Framework

- Identify weekly rate of improvement using at least eight data points
  First eight scores slope = 0.43
- Multiply slope by 1.5 $0.43 \times 1.5 = 0.645$
- Multiply by number of weeks until end of year
          $0.645 \times 14 = 9.03$
- Add to student's baseline score
          $9.03 + 4.625 = 13.66$
- 13.66 (or 14) is student's end-of-year goal

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## Option 3: Setting Goals With Intra-Individual Framework

Slope = 1.0

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Option 3: Setting Goals With Intra-Individual Framework

1. Identify weekly rate of improvement (slope) using at least eight data points:
   $$slope = (18 - 11) \div 7 = 1.0$$

2. Multiply slope by 1.5: $1.0 \times 1.5 = 1.5$

3. Multiply (slope $\times$ 1.5) by number of weeks until end of year:
   $$1.5 \times 12 = 18$$

4. Add to student's baseline score (the baseline is the average of Cecelia's first eight scores):
   $$18 + 14.65 = 32.65$$

5. Mark goal (32.65) on student graph with an X

6. Draw goal-line from baseline to X

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Option 3: Setting Goals With Intra-Individual Framework
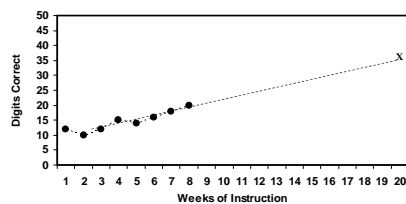
Frequency of Progress Monitoring

- 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.

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)

General Guidelines Based on Best Practices & Research

Progress Monitor (PM) Testing Frequency	**Probable strength of PM data's ability to reliably inform instruction and decision making				R-CBM Recommendation *(Other measures need only one probe per session.)*
	After 4 week period	After 6 week period	After 8 week period	After 10+ week period	
2x/week	**Good	**Excellent	**Excellent	**Excellent	1 probe
1x/week	** Fair	** Fair	**Good	**Excellent	1 probe
Every ~10 days	**Poor	**Poor	**Fair	**Good	1 probe
Every 2 weeks	**Poor	**Poor	**Poor	**Fair	1 probe
Every 3 weeks	Poor	**Poor	**Poor	**Poor	Median of 3 probes
Every 4+ weeks	Poor	Poor	**Poor	**Poor	Median of 3 probes

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Trend Line, Slope, and ROI

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

Collecting Data Is Great…

- But using data to make instructional decisions is the **most** important.
- Select a decision making rule and stick with it.


PM Instructional Decision Making

- Decision rules for PM graphs
  - Based on four most recent consecutive scores
  - Based on student's trend line
  - Growth rate comparison
  - Dual discrepancy

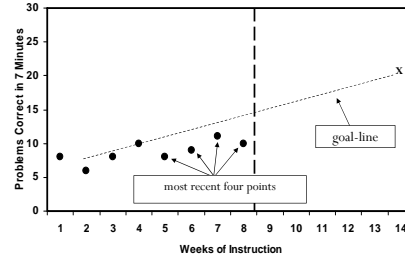## Decision Rules Based on Four-Point Method

- 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.

Four-Point Method
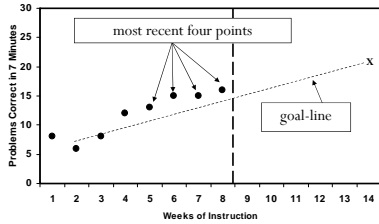
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Four-Point Method

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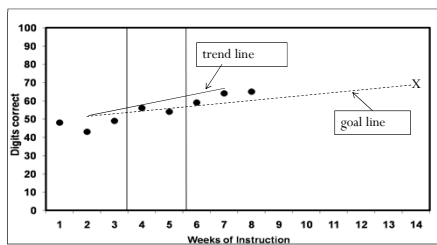
Decision Rules Based on the Trend Line

- 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.
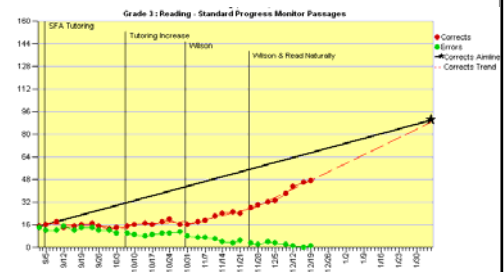
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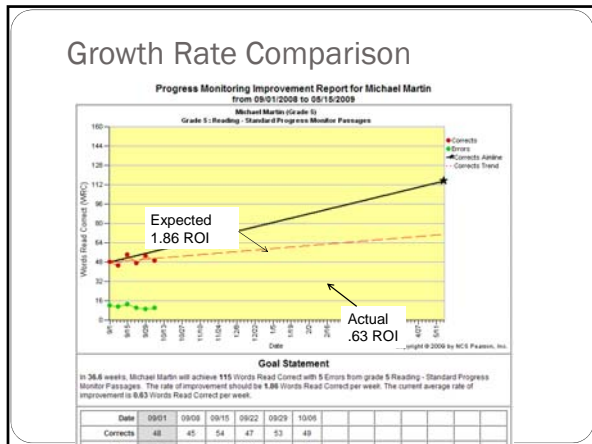## Decision Rules Based on the Trend Line:

- If the student's trend line is steeper than the goal line, the student's end-of-year performance goal needs to be increased.
- If the student's trend line is flatter than the goal line, the teacher needs to revise the instructional program.
- If the student's trend line and goal line are the same, no changes need to be made.

Trend Line Analysis

Published Data Systems often Recalculate Trend Line and ROI after Changes

Growth Rate Comparison

Progress Monitoring Improvement Report for Michael Martin
from 09/01/2008 to 05/15/2009

Michael Martin (Grade 5)
Grade 5 : Reading - Standard Progress Monitor Passages

Expected
1.86 ROI

Actual
.63 ROI

Goal Statement
In 36.6 weeks, Michael Martin will achieve 115 Words Read Correct with 5 Errors from grade 5 Reading - Standard Progress Monitor Passages. The rate of improvement should be 1.86 Words Read Correct per week. The current average rate of improvement is 0.63 Words Read Correct per week.

Date	09/01	09/08	09/15	09/22	09/29	10/06					
Corrects	40	45	54	47	53	49					

Decision Rules Summary

- Four-point rule—easy to implement, but not as sensitive
- The trend line rule—more sensitive to changes, but requires calculation to obtain
- Growth Rate Comparison---provides quantitative comparison
- Dual Discrepancy- rules out additional factors that can affect learning, provides multiple data points

Oliver's Chart – Letter Sounds

Lessons Learned from the Field
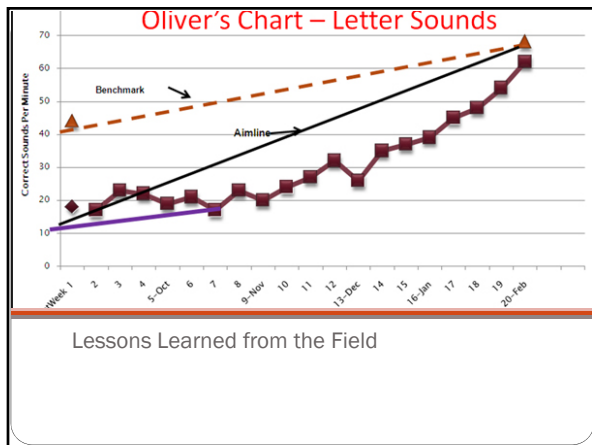
Potential Discussion Questions

- What goal setting strategies are you using?
- How do you ensure that goal setting and decision making processes are equitable across all students?
- How are you determining response or nonresponse using progress monitoring? How frequently are decisions made?
- How are you scheduling Tier II progress monitoring?
- Who administers progress monitoring?
- How do you ensure accuracy of data collection and data decision making?
- What recommendations would you offer to someone in the initial implementation of PM for Tier II?

Closing: Next Steps

- **HOMEWORK:** Brainstorm and develop a list of strengths and areas of improvement for current process for identifying at-risk across grades and content. Consider the strengths and improvement related to efficiency, timely access to data, and relevancy and usefulness of collected data.

- **NEXT MEETING ONLINE:** January 14th, 3:30-5:00pm, Topic: Progress Monitoring Process Tier III – Data Based Individualization (DBI)

Thank You!

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