Element II: Data Use

Overview

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Element II. Data Use

In MTSS–R, data are used to make decisions to improve MTSS–R implementation and student outcomes. Two types of data are used for this: student data (Part I) and MTSS–R implementation data (Part II).

- Section 1: Student Reading Data – General Considerations
- Section 2: Student Reading Data – Universal Screening Data
- Section 3: Student Reading Data – Progress Monitoring Data
- Section 4: Student Reading Data – Diagnostic Assessment Data
- Section 5: Student Reading Data – Lesson Mastery Data
- Section 6: Implementation Data – General Considerations
- Section 7: Implementation Data – Reading Instruction and Intervention
- Section 8: Implementation Data – PD and Coaching
- Section 9: Implementation Data – MTSS-R School Leadership

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ELEMENT II: DATA USE

Two types of data are used to make decisions to improve MTSS–R implementation and student outcomes

- **Student data (Part I)**
- MTSS–R implementation data (Part II)

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A Comprehensive System of Student Reading Data

Use **multiple data sources** to answer essential questions:

Assessment Type	Important Question(s)
Universal Screening	Are students meeting key reading benchmarks? Which students are at risk?
Progress Monitoring	Is the student at risk making adequate progress in the intervention?
Individual Diagnostic	What specific skills has the student not making adequate progress mastered and not mastered?
Lesson Mastery	Is the student learning the instructional content just taught in the lesson?

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(Clarke, 2020)

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Types of Student Reading Data

Assessment	Type	Timing	Duration
Universal Screening	Formative/Summative	3x per year	Short (1-2 mins per measure) (multiple measures)
Progress Monitoring	Formative	1-4x per month	Short (1-2 mins per measure)
Diagnostic	Formative	As needed	Medium / Long (1-10 mins per measure)
Lesson Mastery	Formative	At completion of lesson	Medium (1-10 mins per measure)

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Universal Screening

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Universal Screening Assessments in Reading

Purpose	Identify students who are at risk for poor learning outcomes
Focus	ALL students
Tools	Brief assessments that are valid and reliable and that demonstrate diagnostic accuracy for predicting learning or behavioral problems
Time Frame	Administered three times per year (fall, winter, spring)

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National Center on RTI (2012)

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Examples of measures on screening assessments

Measures	Recommended Grades
• Letter Naming Fluency (LNF) • Letter Sound Fluency (LSF) • Phoneme Segmentation Fluency (PSF)	K - 1
• Word Identification Fluency (WIF)	1-2
• Nonsense Word Fluency (NWF) • Oral Reading Fluency (ORF)	1+
• Maze or Maze Fluency	4+

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IES (2009); National Center on RTI (2012)

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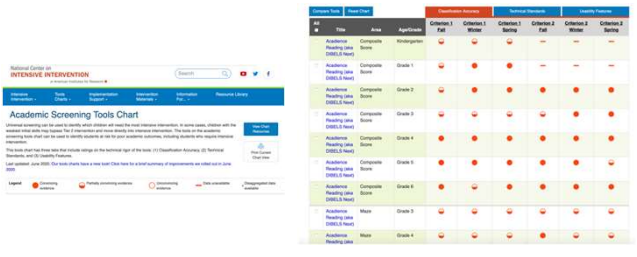

https://charts.intensiveintervention.org/ascreening

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Use the *Assessment and Coordination Plan* to Document Screening Data Plans

Grade Level:

	Screening	Progress Monitoring	Diagnostics	Lesson Mastery	Implementation
Measures					
Purpose					
Timeline					
What students will be assessed?					n/a
Who is the school expert?					
Who is collecting the data?					
When is the training/ retooling?					
Who is entering the data?					
Where is the data stored?					
What TEAM(s) are using the data?	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility

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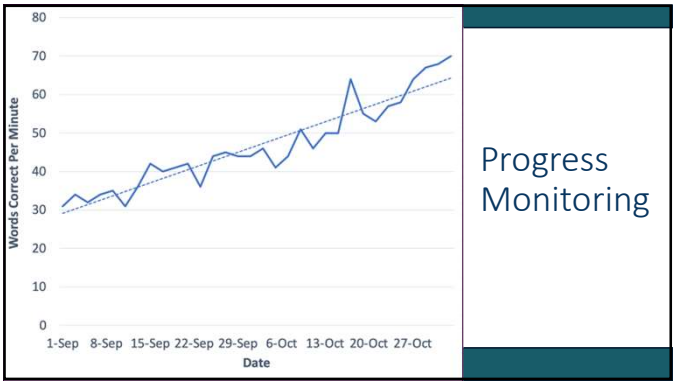

Progress Monitoring

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Progress Monitoring in Reading

Purpose	Determine if students at risk are making adequate progress in response to intervention
Focus	All students at risk for reading problems; other students if needed
Tools	Brief assessments that are reliable and valid and sensitive to progress over time
Time Frame	Regular administration; weekly, biweekly, or monthly

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Progress Monitoring Assessments

- PM measures work well when they are aligned with screening assessments
- PM measures are used more frequently, so multiple comparable **forms** are needed
- PM measures should be aligned to students' area(s) of difficulty (e.g. decoding or reading fluency)
- PM goals should be set to determine whether students are making adequate progress

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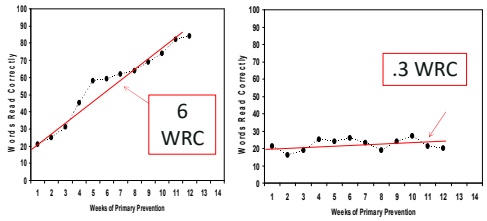
PM Data Can Estimate Rates of Improvement



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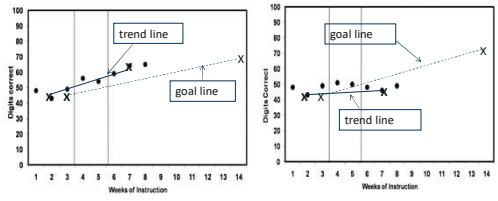
PM Data Can Identify Students Not Making Adequate Progress with Intervention

Increasing Scores:

Flat Scores:



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Use the *Assessment and Coordination Plan* to Document Progress Monitoring Data Plans

Grade Level:

	Screening	Progress Monitoring	Diagnostics	Lesson Mastery	Implementation
Measures					
Purpose					
Timeline					
What students will be assessed?					n/a
Who is the school expert?					
Who is collecting the data?					
When is the training/ retooling?					
Who is entering the data?					
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Diagnostic

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Diagnostic Assessments

Purpose	Identify specific literacy skill strengths and weaknesses to inform intervention intensification
Focus	Students identified through screening/PM as at-risk for poor literacy skill acquisition, and are not making adequate progress
Tools	Longer assessments often standardized; also quicker, less standardized assessments. Psychometric quality varies
Time Frame	Students are assessed on an as-needed basis

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Diagnostic Assessments

Keys to diagnostic assessments?

- They assess or "diagnose" instructional need; they do NOT diagnose disabilities or dyslexia
- **Increased specificity** to tap individual student strengths and weaknesses
- Should provide data on **areas of instruction to be intensified** for an individual student
- Can be **standardized** (available through publishers) or **informal** (created by teachers)
- Can be **combined with multiple data sources** (e.g., parent feedback) to narrow in on instruction need

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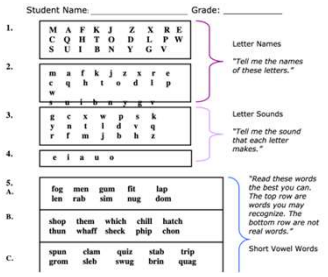
Diagnostic Assessment Examples

- CORE Phonics Screener
- Phonological Awareness Skills Test (PAST)
- Teacher-made phonics assessment


Student Name:_____ Grade: _____

1. M A F K J Z X R E / C Q H T O D L P W / S U I B N Y G V — Letter Names
2. m a f k j z x r e / c q h t o d l p / w / v u i b n y g s — "Tell me the names of these letters."
3. g c x w p s k / y n t l d v q / r f m j b h z — Letter Sounds
4. e i a u o — "Tell me the sound that each letter makes."
5. A. fog men gum fit lap / len rab sim nug dom
   B. shop them which chill hatch / thun whaff sheck phip chon
   C. spun clam quiz stab trip / grom sleb swug brin quag — "Read these words the best you can. The top row are words you may recognize. The bottom row are not real words." — Short Vowel Words

Generic Phonics Screener
National Reading First Technical Assistance Center

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Use the *Assessment and Coordination Plan* to Document Diagnostic Data Plans

Grade Level:		Screening	Progress Monitoring	Diagnostics	Lesson Mastery	Implementation
	Measures					
	Purpose					
	Timeline					
	What students will be assessed?					n/a
	Who is the school expert?					
	Who is collecting the data?					
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Lesson Mastery

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Lesson Mastery

Purpose	Identify lesson components where the learner has reached a mastery level of proficiency
Focus	ALL students who receive the lesson; especially critical to collect for students at risk
Tools	Brief assessments that are either curriculum-embedded or proximal to lesson content
Time Frame	Shortly after completion of a lesson, or within a lesson; interwoven throughout the year to ensure retention of mastery-level proficiency

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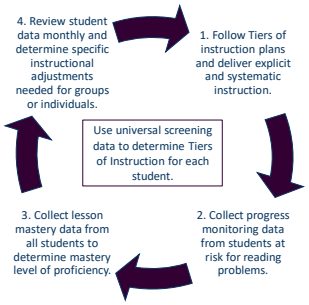
How does lesson mastery data fit within your MTSS-R system?



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Lesson Mastery Data

- Spans all tiers of instruction and intervention
- Is unique because it is **narrowly focused** on assessing for **student understanding of lesson content**
- Is **not** a general outcome measure (e.g., not oral reading fluency)
- Does not necessarily have to meet psychometric standards (e.g., reliability and validity)

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Lesson Mastery Data

- May be packaged with curriculum or teacher created
- May be collected *during* instruction (error data), or *after* instruction
- Should have high confidence that students can respond correctly to 85% of the items on the assessment
- Should be delivered with consistency and linked with alterable instruction – WHAT instructional adjustments need to happen?

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Selecting Lesson Mastery Tools

When choosing an appropriate lesson mastery tool to track student progress, consider:

1. what skill(s) the assessment measures (e.g., phonological awareness, phonics, fluency with connected text, vocabulary, comprehension)?

   and

2. how will you use the data to inform instruction?

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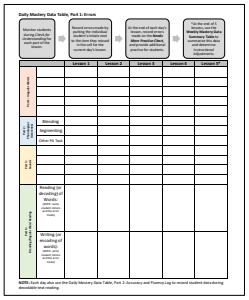
Example: Lesson Mastery Data collected *during* instruction

- Daily lesson mastery is determined by recording errors made during the lesson (e.g., check for understanding)
- Teacher records data on specific sounds or words students have not yet mastered during the lesson.
- Recorded errors can be re-taught at the end of each lesson and at the start of the next lesson.



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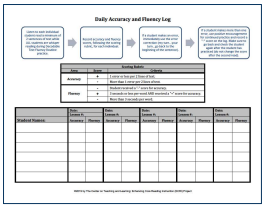
Example: Lesson Mastery Data collected *during* instruction

- Accuracy and fluency of connected text reading data is gathered while students are reading decodable texts
- Teacher records data on the extent to which students can apply the sounds and words they have just been taught to reading connected text.
- Consistent accuracy errors indicate the need to re-teach specific sound-spellings or blending skills. Consistent fluency errors indicate the need to provide additional practice reading in decodable texts.



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Example: Lesson Mastery Data collected *during* instruction

Dictation:

- Teacher has students use paper and pens to collect dictation data at least 1x/week to determine which students can apply the sounds to written words they have just been taught.
- Consistent accuracy errors indicate the need to re-teach specific sound-spellings or segmenting skills.

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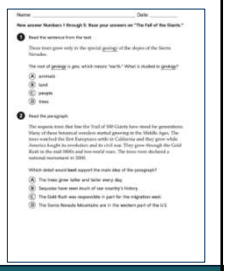
Example: Lesson Mastery Data collected *after* instruction

- Unit Assessments from Core curriculum (because these assessment generally require reading skills, they are most appropriate for students who are at or above benchmark)
- Teacher collects data on how well students have mastered the skills within a unit.
- Errors indicate the need to re-teach specific skills. Results can also indicate areas of instruction to adjust, or improve, when moving on to the next unit of instruction.



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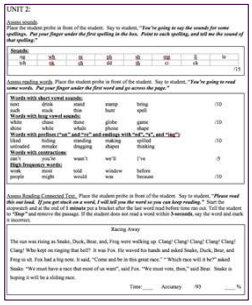
Example: Lesson Mastery Data collected *after* instruction

- End-of-unit teacher created assessment that accurately assesses mastery of unit content.
- Teacher collects data on how well students have mastered the skills within a unit.
- Errors indicate the need to re-teach specific skills. Results can also indicate areas of instruction to adjust, or improve, when moving on to the next unit of instruction.



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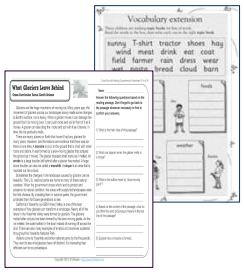
Example: Lesson Mastery Data collected *after* instruction

- Other alternatives to students who may struggle with the packaged Core program assessment
  - Vocabulary -- display weekly vocabulary words without definition – "Write the word that means [give the definition]." Students write the vocabulary word.
  - Teacher groups identify Core program worksheets that students complete at the end of each week, or unit, that can accurately assess content mastery



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Lesson Mastery Results

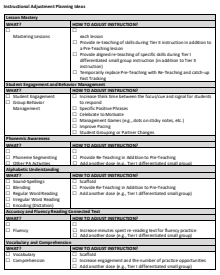
Remember:

Lesson Mastery tools are **narrowly focused** on assessing for **student understanding of lesson content**

Lesson Mastery assessments should be delivered with consistency – follow a **PLAN**

BIG IDEA: Results are linked with alterable instruction – WHAT instructional adjustments need to happen as a result of the current data?

Adjustments Example:



Instructional Adjustment Planning Ideas

Lesson Mastery	
WHAT?	**HOW TO ADJUST INSTRUCTION?**
☐ Mastering Lessons	☐ each lesson ☐ Provide re-teaching of skills during Tier II instruction in addition to a Pre-Teaching lesson ☐ Provide digital re-teaching of specific skills during Tier I differentiated small group instruction (in addition to Tier II instruction) ☐ Temporarily replace Pre-Teaching with Re-Teaching and catch-up Kind Tracking
Student Engagement and Behavior Management	
WHAT?	**HOW TO ADJUST INSTRUCTION?**
☐ Student Engagement ☐ Group Behavior Management	☐ Increase Data Sets between the focus/use and signal for students to respond ☐ Specific Positive Phrases ☐ Celebrate to Motivate ☐ Management Games (e.g., dots on sticky notes, etc.) ☐ Improve Pacing ☐ Student Grouping or Partner Changes
Phonemic Awareness	
WHAT?	**HOW TO ADJUST INSTRUCTION?**
☐ Phonemic Segmenting ☐ Other PA Activities	☐ ☐ Provide Re-Teaching in Addition to Pre-Teaching ☐ Add another dose (e.g., Tier I differentiated small group)
Alphabetic Understanding	
WHAT?	**HOW TO ADJUST INSTRUCTION?**
☐ Sound Spellings ☐ Blending ☐ Regular Word Reading ☐ Irregular Word Reading ☐ Encoding (Dictation)	☐ Scaffold ☐ Provide Re-Teaching in Addition to Pre-Teaching ☐ Add another dose (e.g., Tier I differentiated small group)
Accuracy and Fluency Reading Connected Text	
WHAT?	**HOW TO ADJUST INSTRUCTION?**
☐ Fluency	☐ Increase minute spent or reading level for fluency practice ☐ Add another dose (e.g., Tier I differentiated small group)
Vocabulary and Comprehension	
WHAT?	**HOW TO ADJUST INSTRUCTION?**
☐ Vocabulary ☐ Comprehension	☐ Scaffold ☐ Increase engagement and the number of practice opportunities ☐ Add another dose (e.g., Tier I differentiated small group)

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Using Lesson Mastery Data

- Data can be used to make instructional decisions for individual students or groups of students. For example,
  - DAILY: If **1** student in a group of 5 is struggling to master a skill, you may choose to reteach the skill to *just that student* for a few minutes at the end of each lesson.
  - DAILY: If all 5 students are struggling with one or two skills, you may choose to reteach just those routines to the *whole group* at the end of the lesson, and at the beginning of the next lesson before moving on.
  - WEEKLY: If all 5 students are struggling with *many skills* at the end of a week, you may choose to immediately reteach one lesson before moving on.

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Use the *Assessment and Coordination Plan* to Document Lesson Mastery Data Plans

STOP

Grade Level:

	Screening	Progress Monitoring	Diagnostics	Lesson Mastery	Implementation
Measures					
Purpose					
Timeline					
What students will be assessed?					n/a
Who is the school expert?					
Who is collecting the data?					
When is the training/ retooling?					
Who is entering the data?					
Where is the data stored?					
What TEAM(S) are using this data?	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility	☐ MTSS-R Leadership ☐ PLCs ☐ SpEd Eligibility

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ELEMENT II: DATA USE

Two types of data are used to make decisions to improve MTSS–R implementation and student outcomes

- Student data (Part I)
- **MTSS–R implementation data (Part II)**

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MTSS–R Data Use: Implementation Data

What gets implemented?

- Reading instruction and intervention is implemented
- Professional development and coaching is implemented
- School MTSS–R Leadership is implemented

Data on the implementation of each of these elements should be collected . . . and used to improve implementation and outcomes

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Instruction and Intervention Implementation Data

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Implementation Data: Reading Instruction & Intervention

- Implementation data in Tiers I, II, and III should be collected systematically
- Goal is to assess the difference between what is expected and observed during instruction
- Three types of data are frequently collected:
  - Completed by an observer (e.g. reading coach, principal)
    1. Direct data collection while watching reading instruction in the classroom
    2. Surveys / ratings based on watching reading instruction in the classroom
  - Completed by staff delivering reading instruction
    3. Log of what has been taught

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Types of Instruction and Intervention Implementation Data

- **Fidelity of Implementation** (instruction and intervention were taught as intended)
- **Quality of Implementation** (evidence-based implementation delivery practices: explanations, models, multiple practice opportunities for all students, checks of understanding, error corrections with feedback)
- **Evidence-Based Instructional Practices** (positive learning environment, organization, classroom management, active student participation and engagement strategies, motivational strategies)
- **Instruction and intervention Intensity** (group responses, individual responses, academic feedback, student error rates)

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Fidelity of Implementation: Instructional Areas

- Irregular Word Reading
- Phonemic Awareness
- Sound-Spelling Introduction and Practice
- Blending Sounds
- Regular Word Reading
- Reading in Connected Text
- Encoding Practice
- Vocabulary
- Comprehension

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Quality of Implementation: Explicit Elements

- Explanation/Objective
- Models
- All Students Practicing
  - Appropriate Signal: Focus, Cue, Think Time, Signal
  - Appropriate Pacing
- Checks for Understanding
- Error Corrections

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Evidence-Based Instructional Practices:

- Community of Positive Learning
- Organization of Instructional Materials
- Classroom Management Techniques
- Student Participation and Engagement
- Use of Motivational Strategies
- Instructional Scaffolding

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Instruction and Intervention Intensity

- Group Responses
- Individual Responses
- Academic Feedback
- Student Errors

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PD and Coaching Implementation Data

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Implementation Data: PD & Coaching

Consider ways to collect both quantity and quality data related to PD and Coaching services provided to school staff

1. Collect PD and Coaching quantity and quality data from:
   - Recipients of services (e.g., reading instruction staff)
   - Providers of services (e.g., school or district coach)
2. Have PD and Coaching providers (e.g., school coach) keep logs of the services they provide – (who, what, when, where, why, and how)

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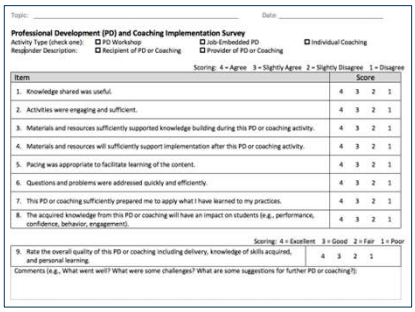
PD and Coaching Implementation Data



Topic: _____ Date: _____

Professional Development (PD) and Coaching Implementation Survey

Activity Type (check one): ☐ PD Workshop ☐ Job-Embedded PD ☐ Individual Coaching
Respondent Description: ☐ Recipient of PD or Coaching ☐ Provider of PD or Coaching

Scoring: 4 = Agree 3 = Slightly Agree 2 = Slightly Disagree 1 = Disagree

Item	Score
1. Knowledge shared was useful.	4 3 2 1
2. Activities were engaging and sufficient.	4 3 2 1
3. Materials and resources sufficiently supported knowledge building during this PD or coaching activity.	4 3 2 1
4. Materials and resources will sufficiently support implementation after this PD or coaching activity.	4 3 2 1
5. Pacing was appropriate to facilitate learning of the content.	4 3 2 1
6. Questions and problems were addressed quickly and efficiently.	4 3 2 1
7. This PD or coaching sufficiently prepared me to apply what I have learned to my practices.	4 3 2 1
8. The acquired knowledge from this PD or coaching will have an impact on students (e.g., performance, confidence, behavior, engagement).	4 3 2 1

Scoring: 4 = Excellent 3 = Good 2 = Fair 1 = Poor

9. Rate the overall quality of this PD or coaching including delivery, knowledge of skills acquired, and personal learning.	4 3 2 1

Comments (e.g., What went well? What were some challenges? What are some suggestions for further PD or coaching?):

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MTSS-R Leadership Implementation Data

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Implementation Data: MTSS-R School Leadership

Consider ways to collect both quantity and quality data related to MTSS-R School Teams:

1. Collect MTSS-R school-based teams' quantity and quality data from members of the teams
2. Have members keep logs, or minutes, of the meetings – (who, what, when, where, why, and how)

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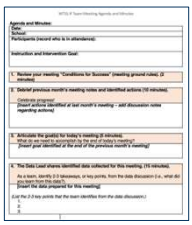
Collect MTSS-R Team Meeting Implementation Data – Meeting Minutes and Meeting Surveys



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Collect PLC Team Meeting Implementation Data – Meeting Minutes and Meeting Survey Data

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Use the *Assessment and Coordination Plan* to Document Implementation Data Plans

Grade Level:		Screening	Progress Monitoring	Diagnostics	Lesson Mastery	Implementation
	Measures					
	Purpose					
	Timeline					
	What students will be assessed?					n/a
	Who is the school expert?					
	Who is collecting the data?					
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Element II: Data Use

Evaluate and Score

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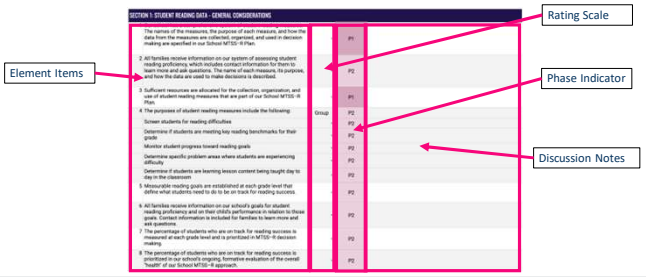
Evaluate and Score: Data Use



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Element II. Data Use

Work with your team and score each section of this Element.

- Section 1: Student Reading Data – General Considerations
- Section 2: Student Reading Data – Universal Screening Data
- Section 3: Student Reading Data – Progress Monitoring Data
- Section 4: Student Reading Data – Diagnostic Assessment Data
- Section 5: Student Reading Data – Lesson Mastery Data
- Section 6: Implementation Data – General Considerations
- Section 7: Implementation Data – Reading Instruction and Intervention
- Section 8: Implementation Data – PD and Coaching
- Section 9: Implementation Data – MTSS-R School Leadership

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