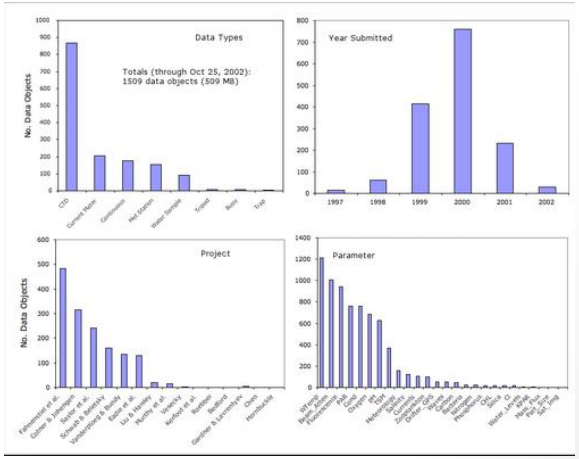
Understanding Assessment in an MTSS Framework

Wyoming MTSS-PLC, September 16, 2015

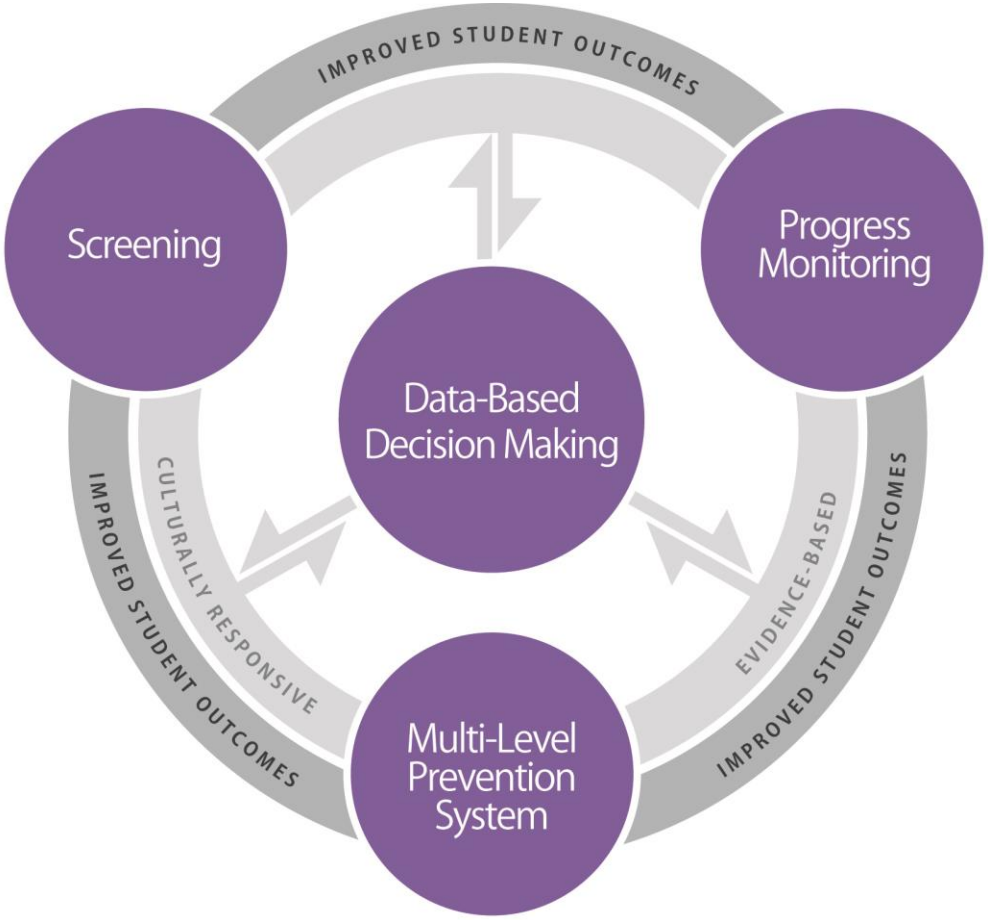


What is MTSS?

- Multi-tiered System Support (MTSS) integrates assessment and intervention within a school-wide, multi-level prevention system to maximize student achievement and reduce behavior problems.
- With MTSS, 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, 2010)

Essential Components of MTSS



NCRTI, 2010

WY MTSS Fidelity Rubric

- Adapted from the Center for Response to Intervention Fidelity Rubric
- Clarifies implementation criteria for the essential components and other implementation factors

Types of Assessments

Type	When?	Why?
Summative	After	Assessment **of** learning
Diagnostic	Before	Identify skill strengths and weakness
Formative	During	Assessment **for** learning

Outcome/Summative Assessments

- PURPOSE: Tell us what students *learned* over a period of time (past tense)
  - May tell us *what* to teach but not *how* to teach
- Administered **after** instruction
- Typically administered to **all** students
- Educational Decisions:
  - Accountability
  - Skill Mastery Assessment
  - Resource Allocation (reactive)

Summative Assessments

Examples:

- High-stakes tests
- GRE, ACT, SAT, and GMAT
- Praxis Tests
- Final Exams, Unit exams

Diagnostic Assessments

- PURPOSE: Measures a student's current knowledge and skills for the purpose of identifying a suitable program of learning.
- Administered **before** instruction
- Typically administered to **some** students
- Educational Decisions:
  - What to Teach
  - Intervention Selection

Diagnostic Assessments

Examples:

- Qualitative Reading Inventory (QRI)
- Diagnostic Reading Assessment (DRA)
- Key Math
- Running Records with Error Analysis
- Benchmark Assessment System (BAS)

Formative Assessments

- PURPOSE: Tells us how well students are responding to instruction
- Administered **during** instruction
- Typically administered to **all** students during benchmarking and **some** students for progress monitoring
- Formal
  - Screening Tools
  - Progress Monitoring Tools
- Informal
  - Classroom assessments

Formative Assessments

Educational Decisions:

- Identification of students who are nonresponsive to instruction or interventions
- Curriculum and instructional decisions
- Program evaluation
- Resource allocation (proactive)
- Comparison of instruction and intervention efficacy

Summative or Formative?

Educational researcher Robert Stake used the following analogy to explain the difference between formative and summative assessment:

> “ When the cook tastes the soup, that's formative. When the guests taste the soup, that's summative.”

(Scriven, 1991, p. 169)

Formative Assessments

- Mastery measures (e.g., intervention or curriculum dependent)
- General Outcome Measures (e.g., CBM)
  - FASTBridge
  - AIMSweb
  - Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

Mastery Measurement

- Describes mastery of a series of short-term instructional objectives
- To implement Mastery Measurement, the teacher:
  - Determines a sensible instructional sequence for the school year
  - Designs criterion-referenced testing procedures to match each step in that instructional sequence

Fourth-Grade Math Computation Curriculum

1. Multidigit addition with regrouping
2. Multidigit subtraction with regrouping
3. Multiplication facts, factors to 9
4. Multiply 2-digit numbers by a 1-digit number
5. Multiply 2-digit numbers by a 2-digit number
6. Division facts, divisors to 9
7. Divide 2-digit numbers by a 1-digit number
8. Divide 3-digit numbers by a 1-digit number
9. Add/subtract simple fractions, like denominators
10. Add/subtract whole number and mixed number

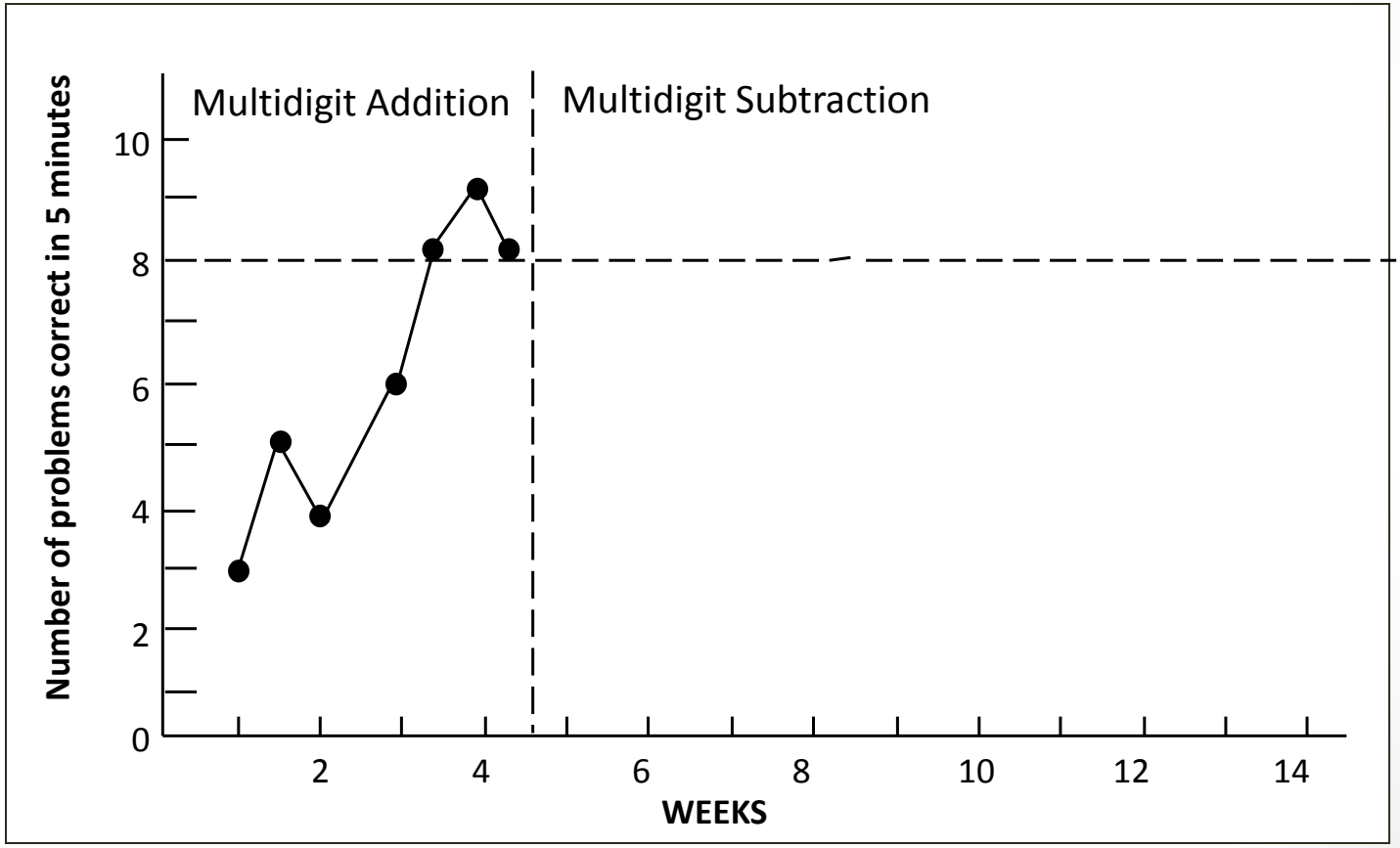
Mastery Measure: Multidigit Addition Assessment

Name: _____ Date _____

Adding

36521 + 63758	53429 + 63421	84525 + 75632	67842 + 53937	57321 + 46391
56382 + 94742	36422 + 57529	34824 + 69426	32415 + 85439	45321 + 86274

Mastery Measure: Multidigit Addition Results



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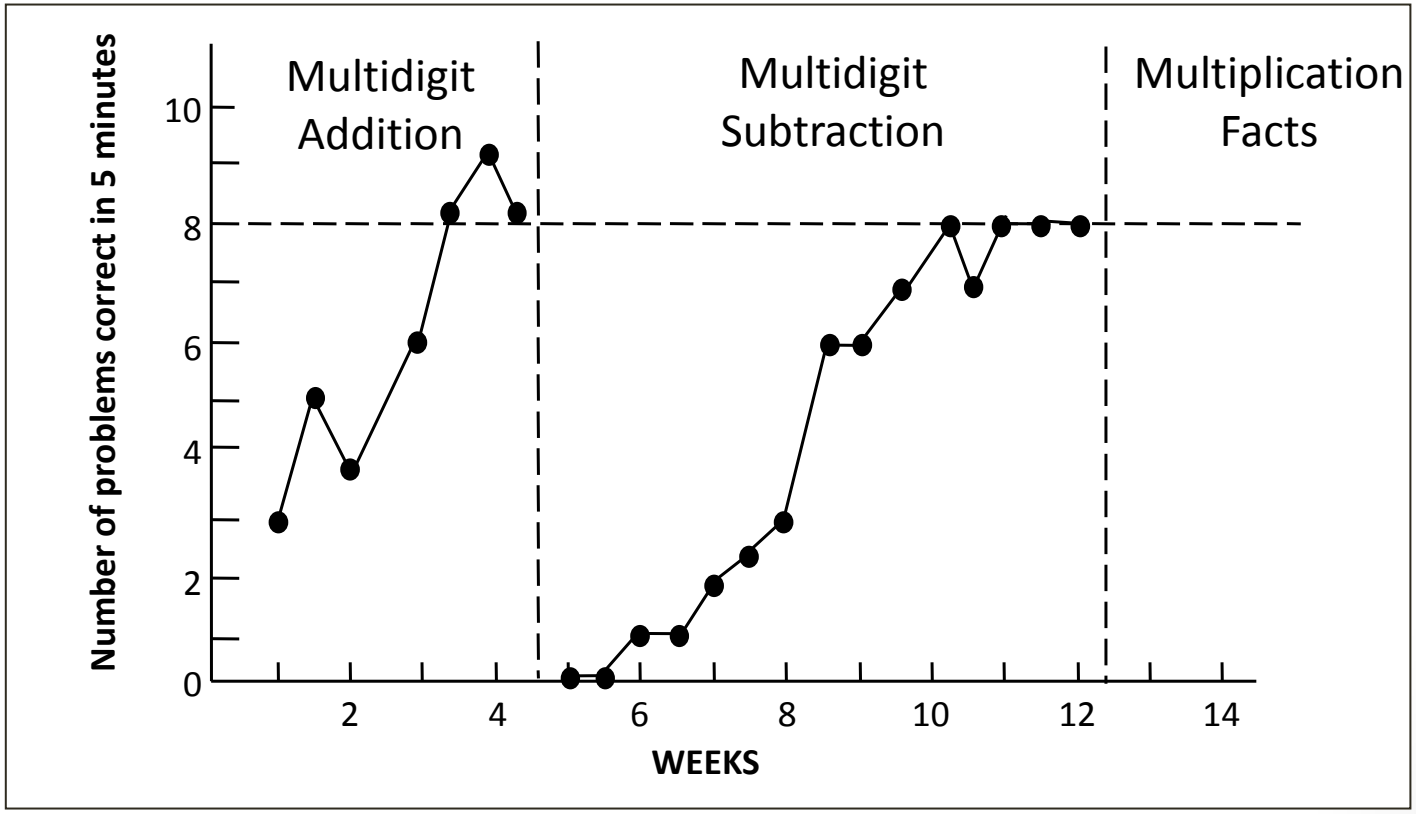
Mastery Measure: Multidigit Subtraction Assessment

Name: _____ Date _____

Subtracting

6521 - 375	5429 - 634	8455 - 756	6782 - 937	7321 - 391
5682 - 942	6422 - 529	3484 - 426	2415 - 854	4321 - 874

Mastery Measure: Multidigit Subtraction Assessment



Advantages of Mastery Measures

- Skill and program specific
- Progress monitoring data can assist in making changes to target skill instruction
- Increasing research demonstrating validity and reliability of some tools

Problems Associated With Mastery Measurement

- Hierarchy of skills is logical, not empirical.
- Assessment does not reflect maintenance or generalization.
- Number of objectives mastered does not relate well to performance on criterion measures.
- Measurement methods are often designed by teachers, with unknown reliability and validity.
- Scores cannot be compared longitudinally.

General Outcome Measure (GOM)

- Reflects overall competence in the yearlong curriculum
- Describes individual children's growth and development over time (both "current status" and "rate of development")
- Provides a decision-making model for designing and evaluating interventions
- Is used for individual children and for groups of children

Common Characteristics of GOMs

- Simple and efficient
- Classification accuracy can be established
- Sensitive to improvement
- Provide performance data to guide and inform a variety of educational decisions
- National/local norms allow for cross comparisons of data

Advantages of GOMs

- Focus is on repeated measures of performance
- Makes no assumptions about instructional hierarchy for determining measurement
- Curriculum independent
- Incorporates automatic tests of retention and generalization

GOM Example: CBM

- Curriculum-Based Measure (CBM)
  - A general outcome measure (GOM) of a student's performance in either basic academic skills or content knowledge
  - CBM tools available in basic skills and core subject areas grades K-8 (e.g., FAST, DIBELS, AIMSweb)

CBM Passage Reading Fluency

Last summer my family took a great train adventure. My mom and dad, my sister Rachel, and I live in Minnesota and my cousins live in California. We traveled over two thousand miles by train to visit them.

Our trip began in Saint Cloud. At midnight, a whistle blew and a train with fifteen huge cars pulled into the station.

"All aboard," the conductor called.

He helped us into the train. We climbed narrow stairs that led to a second level. The car was dark, and the people were sleeping. We walked silently through the rows of seats until we found our seats.

"Your seats lean back for sleeping," the conductor told us. He showed my sister how to move her seat. Next he gave us pillows. Mom took our blankets from her bag.

At first we were too excited to sleep. The train rocked from side to side and made clickety-clack sounds. Soon the rhythm of the sounds and the rocking made us sleepy. We finally dozed off.

- Video #1

Recommended Activity: Analyze Current Assessment System Activity

	Reading	Math	Behavior
Summative			
Diagnostic			
Screening			
Progress Monitoring (MM or GOM)			
Informal			
?			

Discussion Questions

- Do we have a balanced assessment system
- Are there sufficient data sources?
- Do we have the right *type* of data to conduct our analyses?
- Does the focus of the data sources match our desired outcome?
- Are there data sources we need to add or delete?