

Designing Effective Interventions in Reading and Math for Students With the Most Intensive Needs

October 16, 2014



Advanced Organizer

- Overview of MTSS
- Elements of Effective Instruction Across the Tiers
- District Presentation
- Panel Discussion



MTSS

- A Multi-Tiered System of Supports (MTSS) is a term used to describe an evidence-based model of schooling that uses data-based problem-solving to integrate academic and behavioral instruction and intervention.
- The integrated instruction and intervention is delivered to students in varying intensities (multiple tiers) based on student need.
- “Need-driven” decision-making seeks to ensure that district resources reach the appropriate students (schools) at the appropriate levels to accelerate the performance of all students to achieve and/or exceed proficiency .



MTSS Implementation:

- Informed by Data
- Organized by a Plan
- Driven by Professional Development
- Supported by Coaching and Technical Assistance



What Elements **MUST** Be Present to Have and *Integrated* MTSS Model?

- Academic Skills and Academic Behaviors are identified for all students (**Skill Integration**)
- The data are presented in a way that reflects the *relationship* between academic skills and behaviors (**Data Integration**)
- The instruction provided in Tier 1 integrates the effective instructional strategies and performance expectations from Tiers 2 and 3 (**Tier Integration**)
- The instruction provided in Tiers 2 and 3 integrates Tier 1 instruction (materials, performance expectations.) (**Tier Integration**)



TIER I: Core, Universal Academic and Behavior

GOAL: 100% of students achieve
at high levels

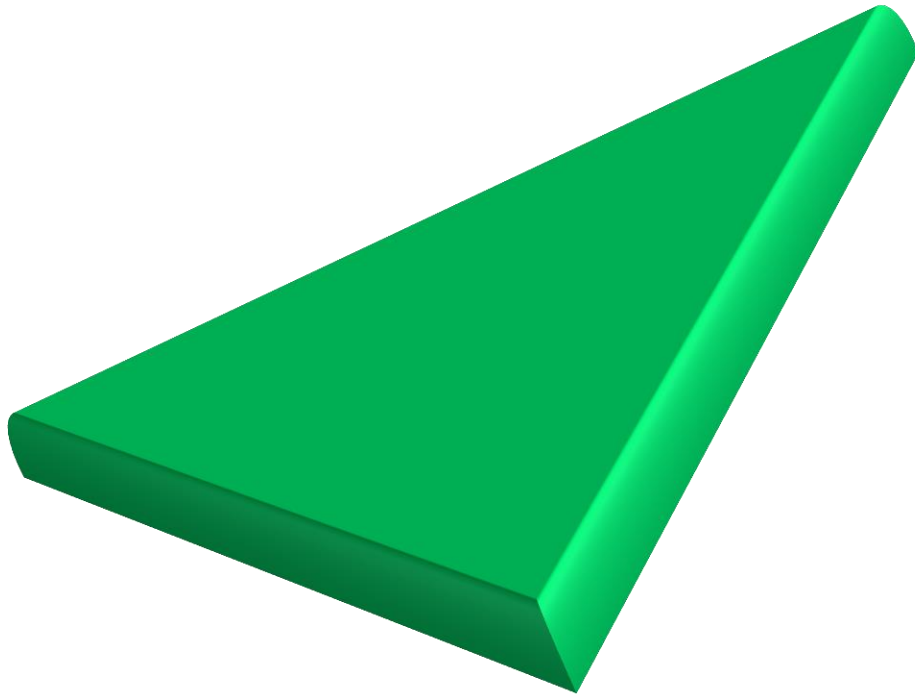
Tier I: Implementing well researched programs and practices demonstrated to produce good outcomes for the majority of students.

Tier I: Effective if at least 80% are meeting benchmarks with access to Core/Universal Instruction.

Tier I: Begins with clear goals:

1. What exactly do we expect all students to learn ?
2. How will we know if and when they've learned it?
3. How you we respond when some students don't learn?
4. How will we respond when some students have already learned?

Questions 1 and 2 help us ensure a guaranteed and viable core curriculum



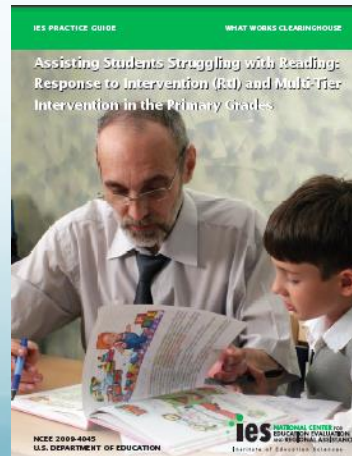
Effective Instruction

- Expectations are “prescribed” by the FL Standards
 - What students need to know by the end of the grade level to be successful for the next grade
- Contiguous instruction
- Gradual release of responsibility
- Universal Design for Learning principles integrated
- Effective use of data-based decision-making to inform instruction



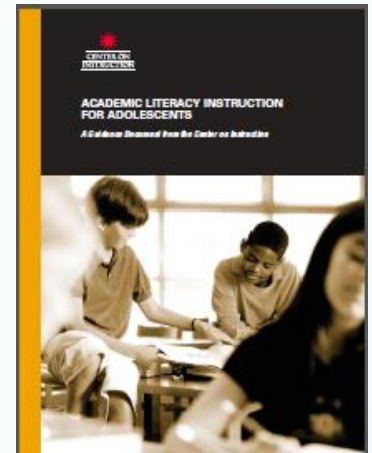
Effective Instruction in Reading

- Screen students for reading related skills at the beginning of the year and again in the middle of the year who display concerns.
- Regularly monitor the progress of students at risk at each grade level.
- Differentiate reading instruction.



Academic Literacy Instruction for Adolescents

- Provide explicit instruction and supportive practice in the use of effective comprehension strategies throughout the school day.
- Increase the amount and quality of open, sustained discussion of reading content.
- Set and maintain high standards for text, conversation, questions and vocabulary.
- Increase students' motivation and engagement with reading.
- Teach essential content knowledge so that all students master critical concepts.



Effective Instruction in Math

- Provide explicit instruction to identify problem schemas
- Teach for transfer of skills to novel problem types
- Provide explicit instruction in problem-solving procedures
- Incorporate peer-mediated and independent practice opportunities
- Incorporate class-wide motivation strategies to promote engagement
- Instruction is provided from the concrete to representational/pictorial to abstract level

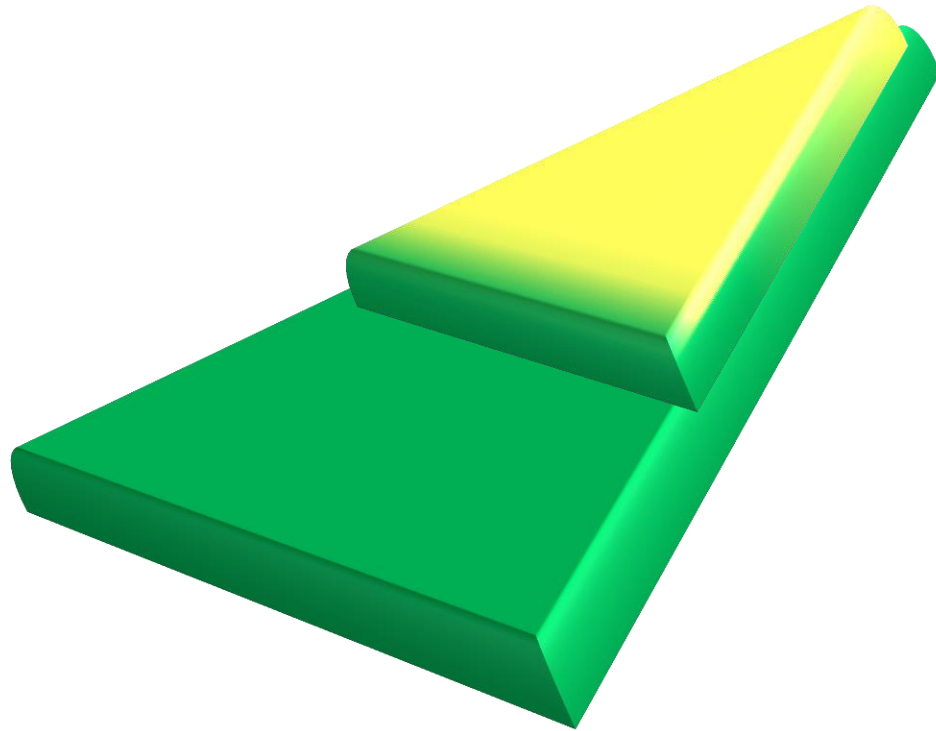


Effective Instruction in Math

- Utilization of tools and technology
- Content knowledge of teacher
- Combination of skill development and problem-solving
- Teaching for conceptual understanding, developing procedural literacy, and promoting strategic competence through meaningful problem-solving investigations
- Encourage divergent thinking
- Pose challenging questions
- Make interdisciplinary connections and examples
- Make math relevant!



TIER II: *Supplemental, Targeted*



Tier II

For approx. 20% of students

Core

+

Supplemental

...to achieve benchmarks

Tier II Effective if at least 70-80% of students improve performance (i.e., gap is closing towards benchmark and/or progress monitoring standards).

1. Where are the students performing now?
2. Where do we want them to be?
3. How long do we have to get them there?
4. How much do they have to grow per year/monthly to get there?
5. What resources will move them at that rate?

Tier 2 Instruction

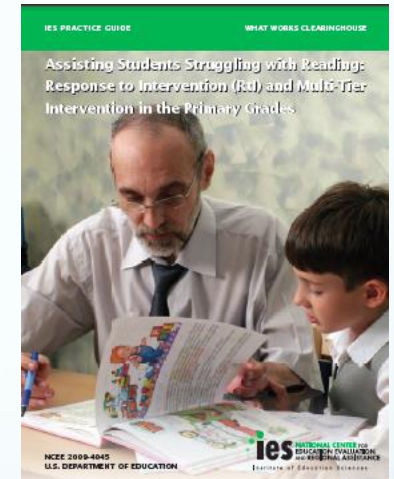
- Problem solving focus is on instruction
- Increased explicit and systematic instruction
- Interventionists need to know what the core (Tier 1) expectations are in order to provide strategies that are aligned
- Integration (pre-teach/review/reteach)
- Students see the connection to core



Effective Instruction in Reading

Tier 2

- Provide up to 3 foundational reading skills to students who scored below benchmark on universal screening data.
- Instruction systematic, highly explicit and interactive on reading skills (phonemic awareness, decoding, fluency and vocabulary).
- Small group instruction in homogeneous groups for 20-40 minutes for 3 to 5 days a week.
- Carefully monitor progress of students at least once a month.
- Ensure ongoing progress monitoring data to regroup students after six weeks.



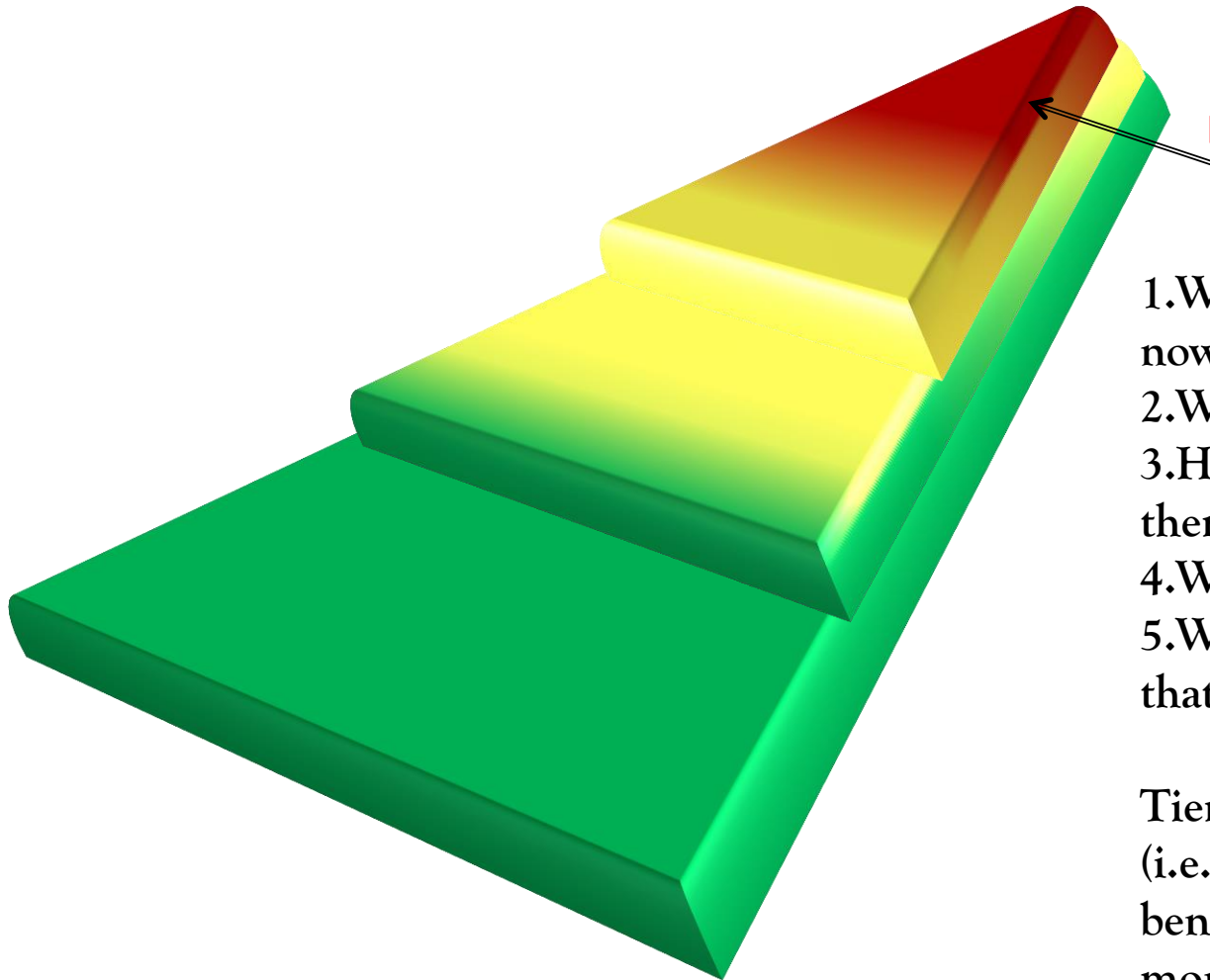
Effective Instruction in Math

Tier 2

- A well-sequenced program of instruction that logically builds on existing skills and periodically returns to previously mastered skills to ensure maintenance
- Instructional design that eases the learning challenge
- Include opportunities for students to work with visual representations
- Increased opportunity for practice
- Cumulative review as part of increased practice
- Motivators to help students regulate their attention and behavior and to work hard
- Demonstration of correct and incorrect responses, and opportunities to practice performing newly learned skills with direct support (especially immediate corrective feedback) followed by more independent practice

TIER III:

Intensive, Individualized



Tier III
For Approx. 5% of Students

Core

+

Supplemental

+

Intensive Individual Instruction

...to achieve benchmarks

1. Where is the student performing now?
2. Where do we want him to be?
3. How long do we have to get him there?
4. What supports has he received?
5. What resources will move him at that rate?

Tier III Effective if there is progress (i.e., gap closing) towards benchmark and/or progress monitoring goals.

Tier 3 Instruction

- Problem solving focus is on individual student
- Reduction/elimination of barriers
- If time IS NOT increased, there ARE NOT Tier 3 supports occurring
- Guided practice is an absolute
- Corrective feedback is vital
- Reduction of error rates through intense practice and pre-teaching
- Do students see the connection to core?
- Provide instruction so that inaccurate responses are not possible
 - Reduce error rate in responding
 - Neuro-chemical memory of incorrect response
 - Need greater than 1:1 response
 - Automate



Intensify Instructional Delivery

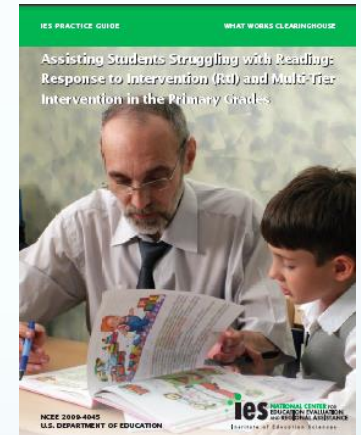
- Model with clear and detailed explanations
- Concrete learning opportunities (pictures, graphics, manipulatives, think-alouds)
- Tasks broken down into small steps
- Instruction broken down into simple segments
- Step-by-step strategies
- Support reduced over a period of time
- Error correction with increased opportunities



Effective Instruction in Reading

Tier 3

- Provide daily targeted reading instruction **very few students** (groups of 3 or fewer).
- Ensure **feedback** based on responses, **teach to mastery**, and plan instruction with instructional sequence.
- Implement **concentrated instruction** focused on a small, but targeted set of reading skills determined from the data.
- Schedule **multiple and extended** instructional sessions.
 - May require up to 30 more repetition as their peers.
- Include opportunities for **extensive practice and high quality feedback**.
- Plan and individualize tier 3 instruction using **input from school based team**.
- Ensure **mastery of reading skill or strategy** prior to moving on.



Effective Instruction in Math

Tier 3

- Instruction should be more explicit and systematic.
- Interventions should include instruction on solving word problems that is based on common underlying structures.
- Use error-analysis data to identify instructional deficits and necessary adaptations
- Provide explicit instruction in foundational skills
- Increase math fluency
- Solving word problems using structured organizers
- Sequence for teaching fractional concepts
- Reciprocal peer tutoring
- Math centers

<i>Definition</i> A whole number with more than two factors.	<i>Facts</i> <ul style="list-style-type: none">• 4 is the lowest composite.• 0 and 1 are not composites.• Square numbers have an odd number of factors.• 2 is the only even number that is not a composite.
<i>Examples</i> 4, 6, 8, 9, 10, 12, 14, 15, 16	<i>Nonexamples</i> 0, 1, 2, 3, 5, 7, 11, 13, 17

Composite Numbers

Matching Resources to Need

- Most experience specialized experts who have strong technical skills.
- Experts in analyzing multiple forms of data and using those data to make accurate instructional decisions.
- Buy in to ensure effective resources are utilized for the small number of students.



Implications for Intensive Intervention

- Students have the most persistent and severe learning and behavioral challenges.
- Not a one-size-fits-all approach to learning.
- For students who do not respond to traditional forms of instruction and intervention that are effective for the majority of peers.



What Does It Look Like?

- Decisions made using a data-based, problem-solving process
- All problem-solving considers academic and behavior (student engagement) together in the context of universal design
- A school-based team is responsible for monitoring student performance to determine overall “health” of the school environment
- Parents are engaged in the problem-solving and instruction/intervention process



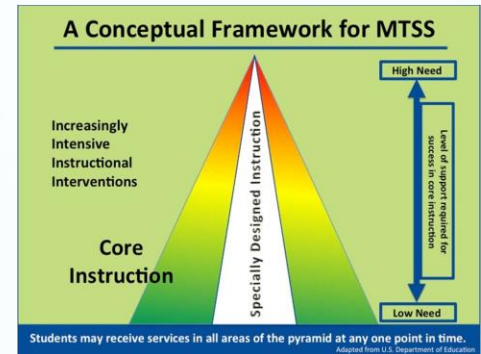
What Does It Look Like?

- Student engagement is a **primary priority**
- **Lesson Study** (Tier Integration /Planning) is the focus for effective instruction
- **Early Warning Systems** are in place to ensure a focus on prevention
- **Strong leadership** exists at all levels
- The school (Principal) is **held accountable** for high quality implementation of MTSS as well as student outcomes



Intensive vs. Specially Designed

- Intensive instruction:
 - Most time we can provide
 - Narrowest focus
 - Designed to overcome barriers (e.g., loss of opportunity, lack of sufficient instructional time, background, language) that are **not the result of a disability**
- Specially Designed Instruction
 - Designed to reduce or eliminate the barriers **related to a disability**



Panel Discussion



9th Grade Tier 2 Results

Total of 47 students in 2 class periods

- 64% of total students have improved by one Grade Level in Reading since August
- 89% have improved their rate of reading (wpm) with an averages of 38 wpm and 31 wpm
- 78% and 75% of the class are on schedule in completing the required assignments



How do you identify students in need of more intensive supports?



How do you identify the focus of supports?



How is intervention designed?



How do you connect intervention to core?



Do students see the connection to core?



How do you schedule staff?



How do you progress monitor?



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