



The Science of MTSS

Kim St. Martin, Ph.D.

September 2024

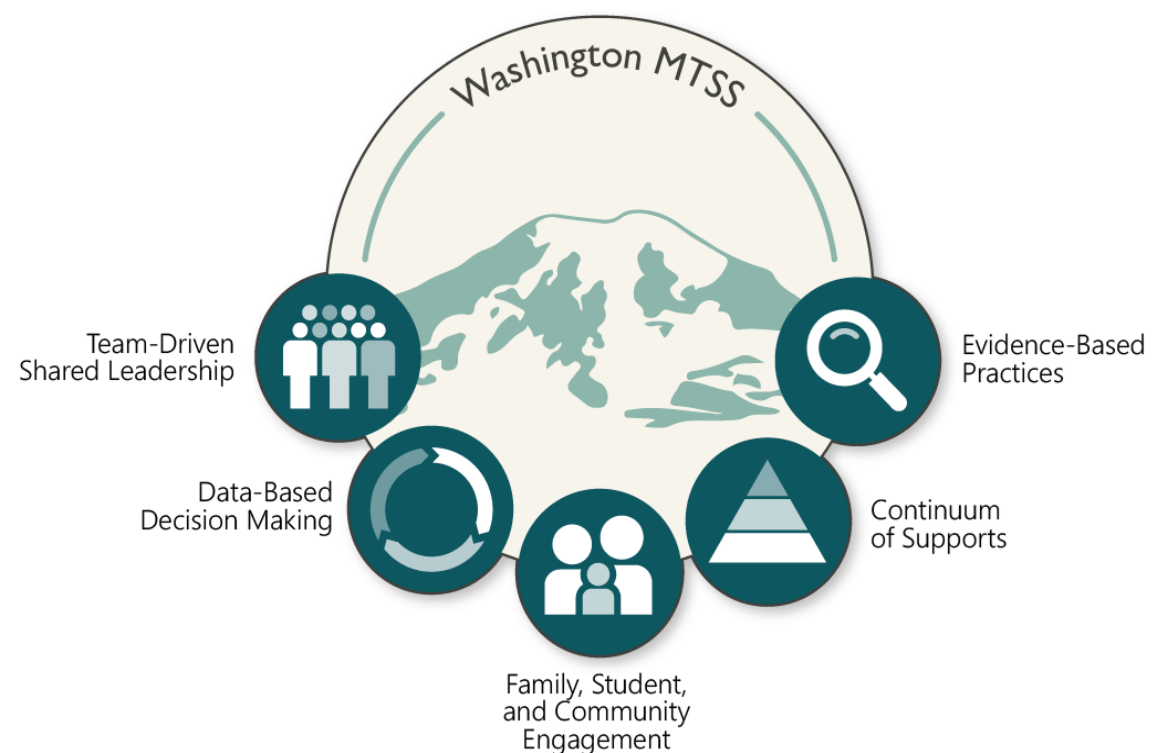
Intended Outcomes

- Identify two systems an MTSS framework is designed to support.
- Discuss the research for integrating academic and behavioral supports.
- Describe example classroom (Tier 1) social, emotional, behavioral, and reading practices teachers can implement as a part of an integrated MTSS framework.

Washington's MTSS Definition

Washington's MTSS Framework

“Multi-Tiered System of Supports (MTSS) is a framework for enhancing the implementation of evidence-based practices to achieve important outcomes for every student.

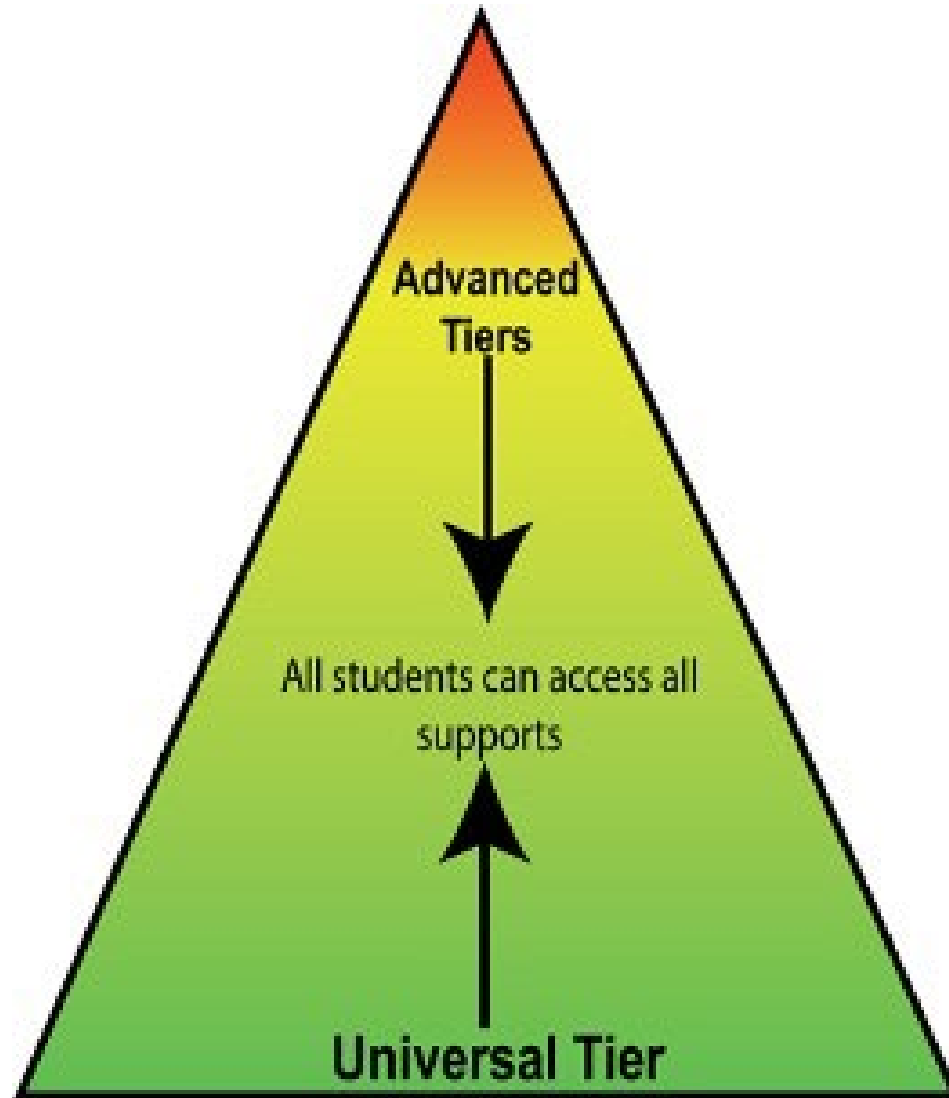


Washington Office of Superintendent of Public School Instruction

Washington MTSS Components

- Team Driven Shared Leadership
- Data Based Decision Making
- Family, Student, and Community Engagement
- Continuum of Supports
- Evidence Based Practices

MTSS to Support All Learners Without Delay



Important Note about MTSS

- MTSS is a **framework**.
- The framework is only as good as the evidence-based practices, curriculum resources, and assessments used within the framework.
- The “system of supports” are for:
 1. Students receiving support in the classroom and intervention settings, so their outcomes are accelerated
 2. Teachers/staff who need support in using the evidence-based practices, curriculum resources, and assessments
 3. Teachers/staff who need support in using the processes and procedures that are established in the school to flexibly meet the needs of students

Defining the Systems

- Systems (infrastructures) are developed to support:
 1. Implementing the programs, practices, and assessment data across grade levels and core subjects.
 2. Students in responding to the classroom, Tier 1 supports, and intervention support
- Teaming structures to support school-wide implementation are an infrastructure to support implementation:
 - School leadership team
 - Grade level teams
 - Department teams (secondary schools)
 - Multidisciplinary Team (or can be referred to as an Intervention Response Team)
- Ongoing training and coaching are infrastructures, too.

Let's discuss the evidence-based practices and programs within the MTSS framework!

Social, Emotional, Behavioral (SEB) Practices



Social, Emotional, Behavioral (SEB) Supports

Promote **well-being** and **mental health**:

- Social – how we interact
- Emotional – how we feel
- Behavioral – how we act

(U.S. Dept. of Ed., 2021)

Importance of SEB Supports

“There may be no greater predictor of mental health than an individual’s ability to interact with his or her environment and develop a network of friends, associates, and peers.” (Grumpel, 2007)

- Improves academic performance
- Interpersonal skills are highly desired by employers
- Teaches skills rather than punishing when there is a need

SEB Big Ideas

1. Defining school-wide expectations and Social Emotional Behavioral (SEB) skills
2. Teaching SEB expectations and skills
3. Acknowledging SEB skills
4. Responding to interfering behavior
5. Collecting and using data

These “SEB big ideas” can be applied in **classroom** and **non-classroom settings**.

Applying SEB Big Ideas

Classroom

- Whole Group Instruction
- Turning in Assignments
- If students finish early
- Partner Work
- Returning from an Absence
- Lab or Learning Centers
- Arrival/Dismissal
- When students need help

Non-Classroom

- Arrival/Dismissal
- Hallways
- Bathroom
- Cafeteria
- Library Media Center
- Auditorium
- Playground
- Bus

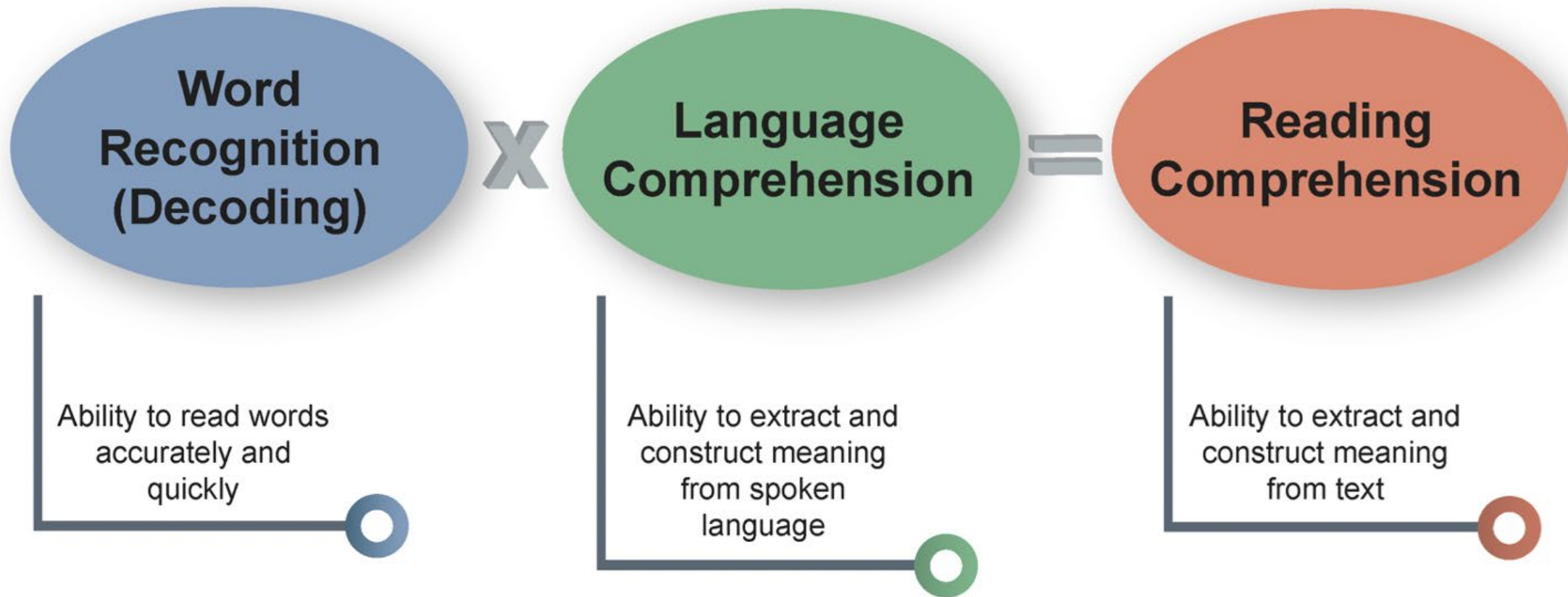
SEB MTSS Professional Learning Modules

- Tier 1 classroom SEB professional learning modules:
 - Supportive classroom relationships
 - Physical classroom environment and visuals
 - Engaging learners in instruction
 - Developing classroom expectations and involving students and families
 - Teaching and reinforcing SEB skills
 - Regulation strategies for students and staff
 - Understanding behavior and responding consistently

Interventionists also attend these sessions to set up a good intervention classroom environment.

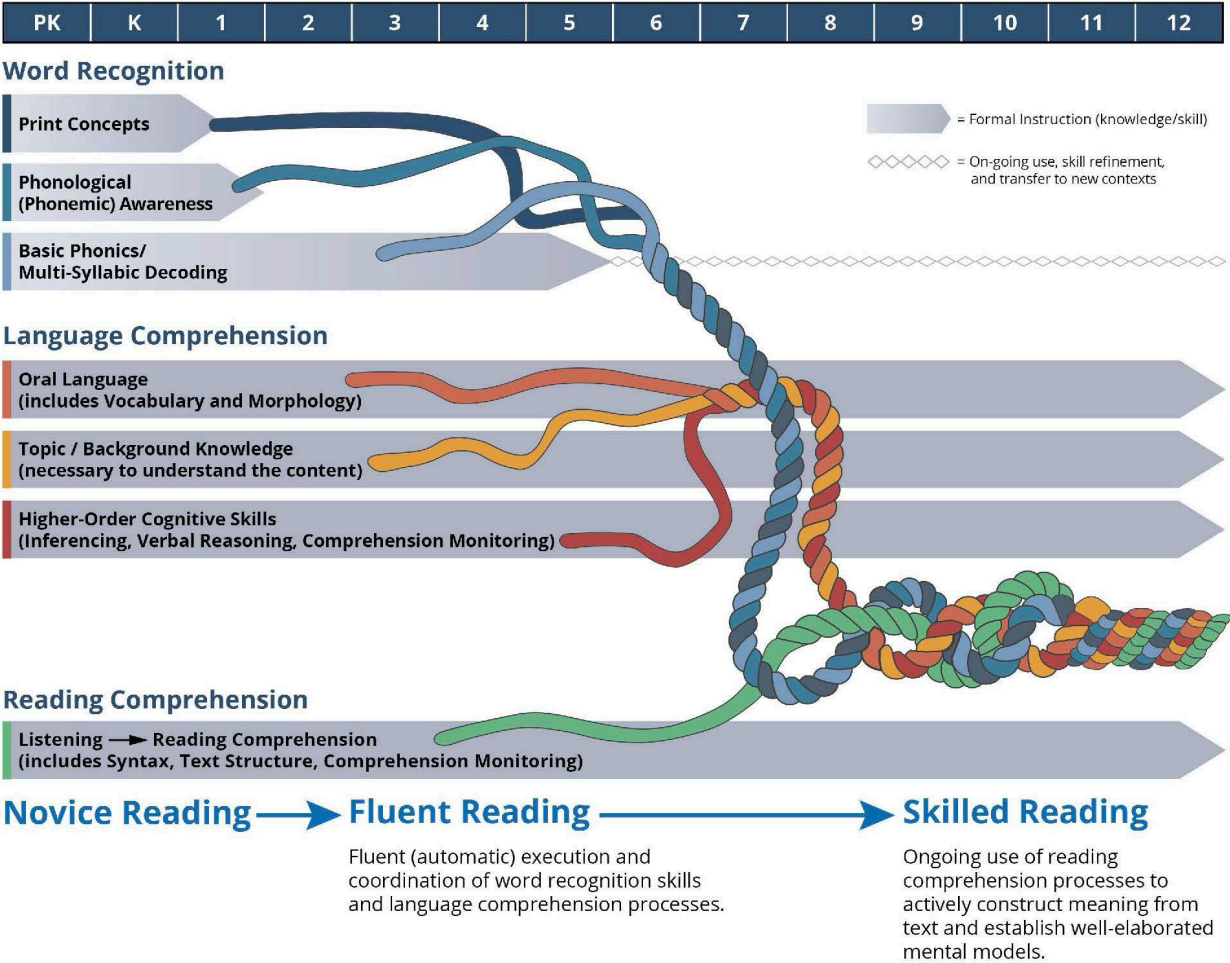
Evidence-Based Literacy Practices

Simple View of Reading



Gough & Tunmer, 1986; Hoover & Gough, 1990; Tunmer & Hoover, 2019

Unpacking the Simple View of Reading: Instructional Implications



Unpacking the Simple View of Writing: Instructional Implications

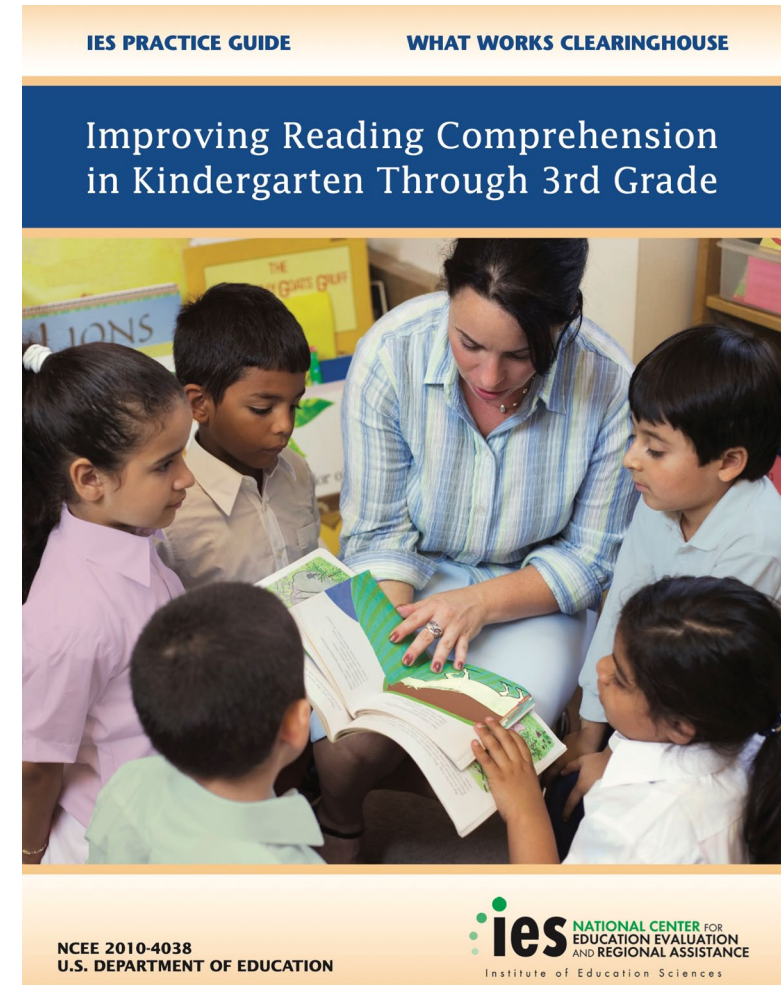
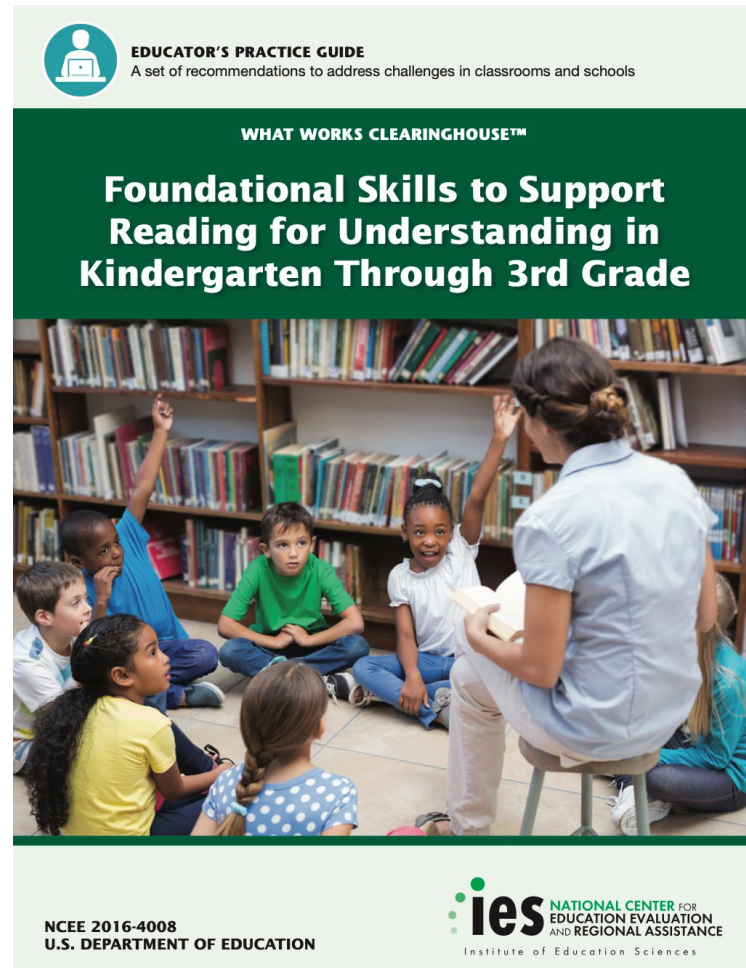


ng / Computer
Technology Use



Text Structure (e.g., narrative / story, informative / explanatory, opinion / argument, biography, folktale, advertisements, opinion / editorial)

Early Elementary IES Practice Guides (K-3)



Elementary Integrated SEB, Reading MTSS **Year 1** Learning At a Glance

Summer-Fall, 2024

Winter, 2024

Spring, 2025

District processes and procedures to help people implement practices

ongoing use of what was taught

Early Childhood: Social, Emotional, Development and Supports

ongoing use of what was taught

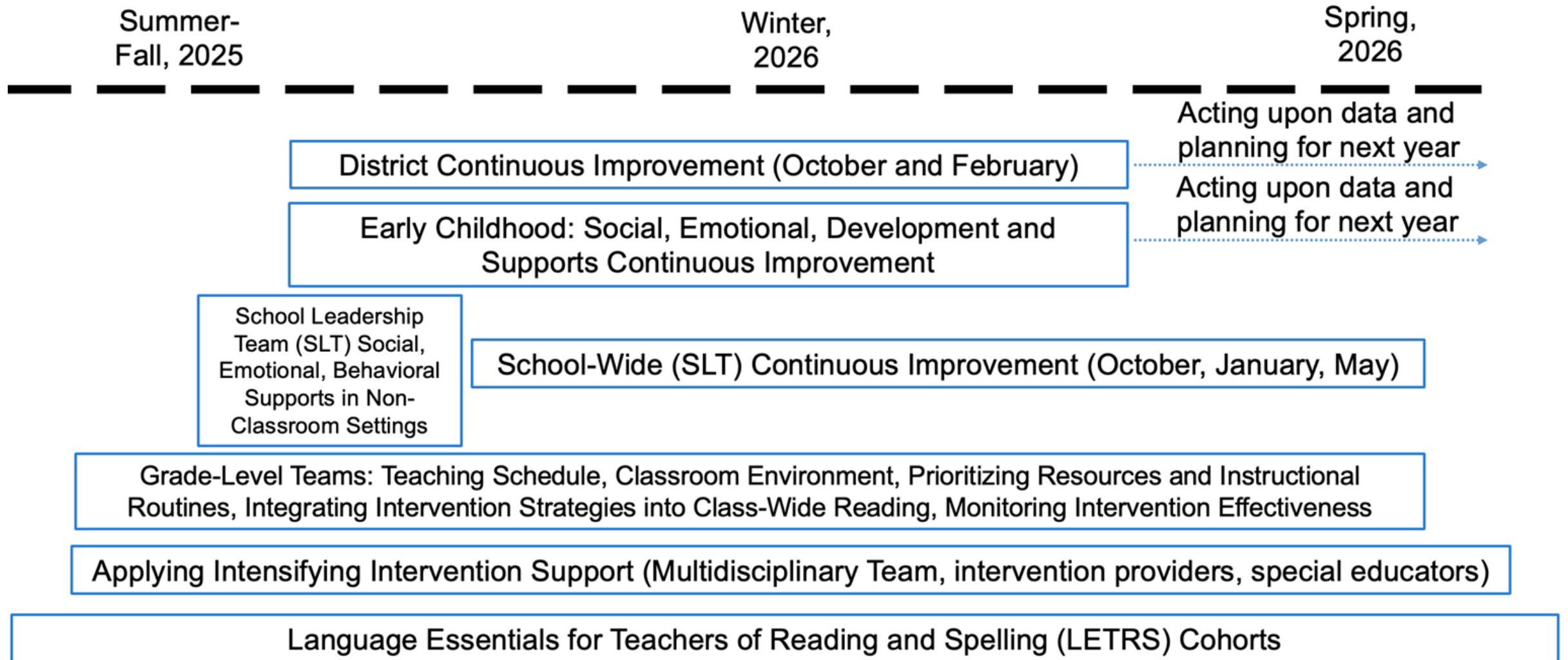
Classroom Teachers: Safe, Predictable, & Instructionally Engaging Classroom Environments

ongoing use of what was taught

Language Essentials for Teachers of Reading and Spelling (LETRS) Cohorts

Intensifying Intervention Support (Multidisciplinary Team, intervention providers, special educators)

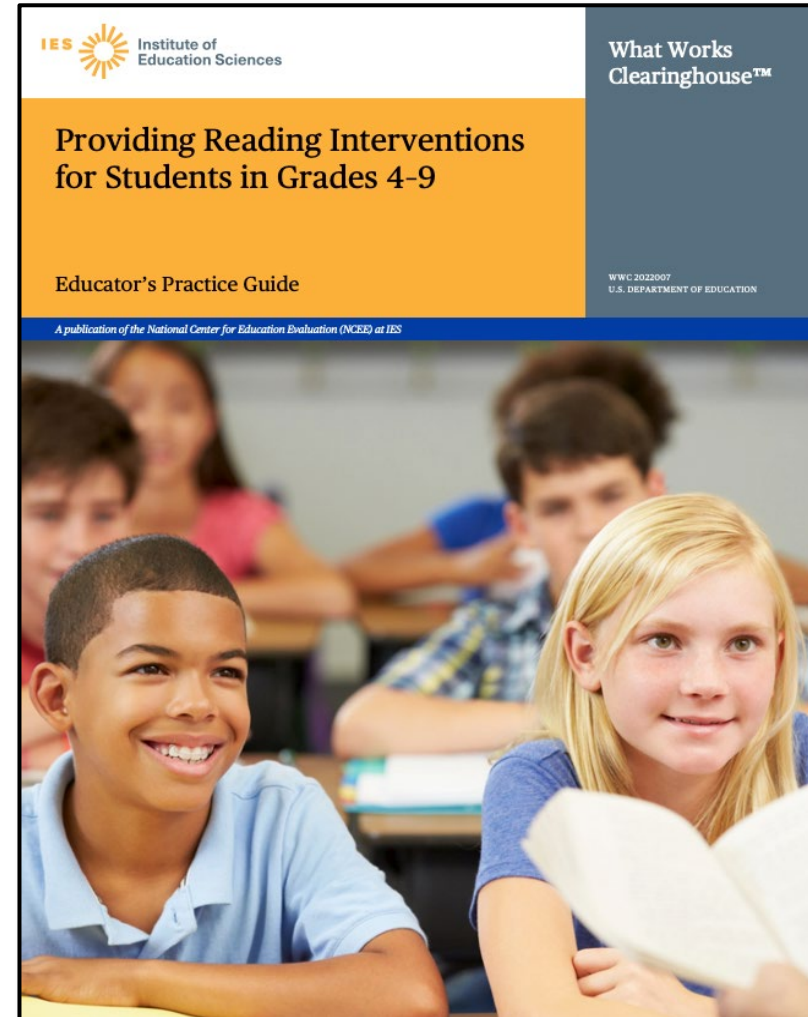
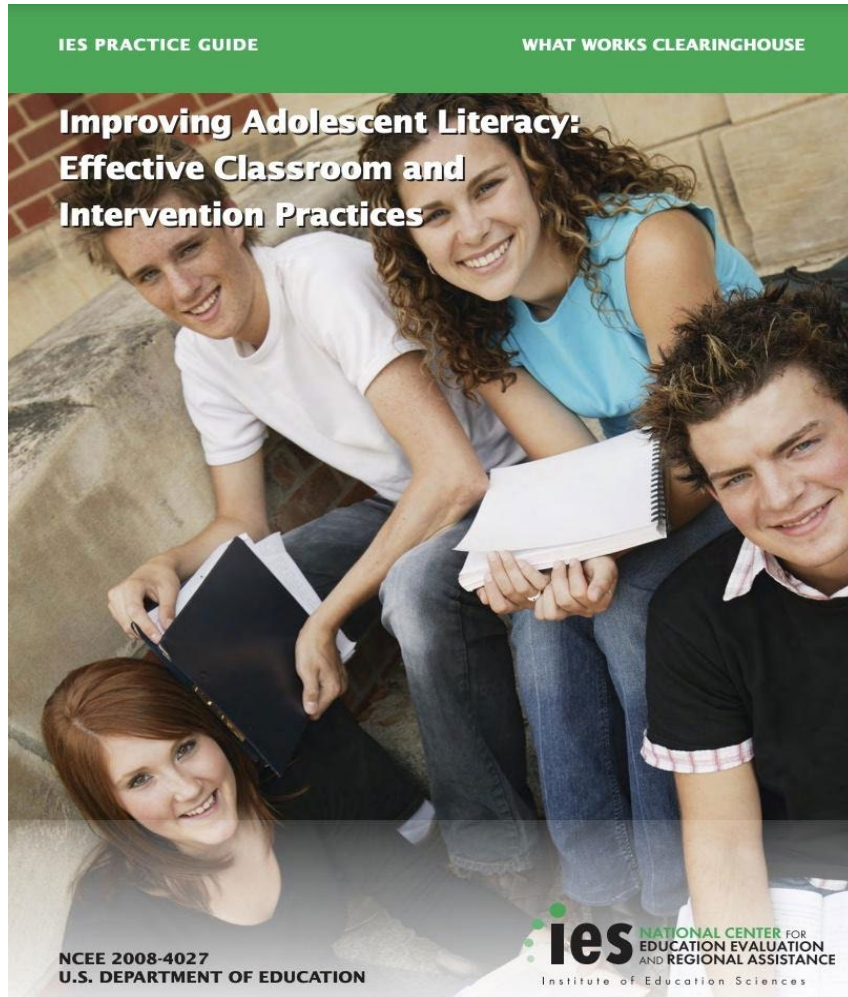
Elementary Integrated SEB, Reading MTSS **Year 2** Learning At a Glance



Tier 1 Classroom Elementary Reading Professional Learning

- Grade-level teachers professional learning:
 - Classroom literacy instruction schedule
 - Prioritizing literacy curriculum resources
 - Organizing materials and, when applicable, enhancing instructional routines to increase the level of explicitness.
 - Integrating intervention strategies in the classroom to help students generalize the intervention routines in the classroom setting
 - Grade-level instructional planning and ongoing data analysis based on fall, winter, and spring screening data

Adolescent Literacy IES Practice Guides





Challenges with Limited Opportunities to Read in Secondary School

- A recent study of 8th and 10th grade SS and ELA classrooms indicated that students are actually reading less than 4 minutes per hour in school. (Swanson, et al., 2016)
- 31% of students do not read outside of school (NAEP, 2023)
- A student at the 90th percentile is reading 2,357,000 words per year. (Anderson, 1988)
- A student at the 10th percentile is reading 51,000 words per year. (Anderson, 1988)

The Impact of Limited Opportunities to Read

- Reduced vocabulary
- Reduced background knowledge
- Reduced understanding of more complex syntax, which impacts writing skill
- Reduced levels of educational attainment and income

Informational Text Challenges

- Text Structure
- Background information needed to understand the contents
- Specialized vocabulary
- Retention of information is expected
- Higher readability
- The text contains dense facts and abstract concepts
- There could be symbols and abbreviations within the text
- Text might be lower-interest for students
- Pictures, graphs, and maps are included and carry meaning to help understand the concepts

Secondary Integrated SEB, Reading MTSS **Year 1** Learning At a Glance

Summer-Fall, 2024

Winter, 2025

Spring, 2025

District processes and procedures to help people implement practices

ongoing use of what was taught

Classroom Teachers: Safe, Predictable, & Instructionally Engaging Classroom Environments

ongoing use of what was taught

Core Subject Area Reading and Writing Strategies:
(School leadership team with the principal collaborate with teachers to sequence the strategies, determine timelines, and determine the grade level core subject area teachers who will participate in the professional learning.)

Intensifying Intervention Support (Multidisciplinary Team, intervention providers, special educators)

Secondary Integrated SEB, Reading MTSS Year 2 Learning At a Glance

Summer-Fall, 2025

Winter, 2026

Spring, 2026

District Continuous Improvement (October and February)

Acting upon data and planning for next year

School Leadership Team (SLT) Social, Emotional, Behavioral Supports in Non-Classroom Settings

School-Wide (SLT) Continuous Improvement (October, January, May)

Core Subject Area Reading and Writing Strategies
(School leadership team with the principal collaborate with teachers to sequence the strategies, determine timelines, and determine the grade level core subject area teachers who will participate in the professional learning.)

Grade-Level Teams: Teaching Schedule, Classroom Environment, Integrating Intervention Strategies into Core Subject Areas, Monitoring Intervention Effectiveness

Applying Intensifying Intervention Support (Multidisciplinary Team, intervention providers, special educators)

Core Subject Area Implementation Example

- Before Reading:
 - Pre-teach the pronunciation of difficult words
 - Explicitly teach vocabulary that is critical to understanding
 - Develop topic / background knowledge
- During Reading:
 - Passage reading procedures
 - Teacher generated questions: "Read, Stop, Respond"
 - Student generated questions
 - Teach text structure and text features
- After Reading:
 - Text discussions
 - Write summaries about what was read

Integrated Academic and Behavior Supports Research

Integrating Academic and SEB Supports Research

- Difficulties in one area (reading or behavior) can predict future difficulties in the other area (McIntosh, Horner, Chard, Dickey, & Braun, 2008).
- Poor academic skills in the early elementary grades predicts a range of behavior difficulties in later grades because engaging in problem behaviors may allow students to escape or avoid instruction in the area(s) they find challenging (McIntosh, Horner, Chard, Dickey, & Braun, 2008)
- Academic activities that are too easy, too difficult, or not considered to be relevant to students may result in students demonstrating behaviors that are problematic to the learning environment. (McIntosh, Horner, Chard, Dickey, & Braun, 2008).

Integrating Academic and SEB Supports Research (cont.)

- Dyslexia can be associated with significant negative consequences:
 - Poor overall school performance relative to grade-level peers
 - Behavioral difficulties
 - Low self-esteem
 - Anxiety
 - Depression

MTSS Applied to Behavior (MTSS-B) Research

- A couple key takeaways:
 - Many Positive Behavioral Interventions and Supports (PBIS) studies demonstrate improvement in range of student outcomes.
 - PBIS implementation does not automatically improve academic outcomes.
 - Classroom PBIS implementation is critical for improving student outcomes.



Wrapping-Up...

- Please take 1 minute and write down your take-aways (“gots”) from this session and the things you still want to know more about.
- Share with your partner.



Thank You!

Kim St. Martin, Ph.D.

Director, Michigan's MTSS Technical
Assistance Center

kstmartin@mimtss.org



References

- Catts, H. W., & Hogan, T. P. (2021). Dyslexia: An ounce of prevention is better than a pound of diagnosis and treatment. *The Reading League Journal*, 2(1), 6–13. <https://doi.org/10.31234/osf.io/nvgje>
- McIntosh, K., Herman, K., Bradshaw, C., & Simonsen, B. (2023). *IES MTSS-B trial: Key takeaways for district and state leaders*. Center on PBIS, University of Oregon. www.pbis.org.
- McIntosh, K., Horner, R. H., Chard, D. J., Dickey, C. R., & Braun, D. H. (2008). Reading skills and function of problem behavior in typical school settings. *The Journal of Special Education*, 42(3), 131–147. <https://doi.org/10.1177/0022466907313253>