

In this brief, we offer a structure for considering what we know, and what we still need to learn, from research on the effects of organizing evidence-based practices within an integrated multi-tiered system of support (I-MTSS) framework.



What do we mean by research on I-MTSS?

I-MTSS is "a comprehensive and equitable prevention framework for improving the outcomes of all students, including students with or at-risk for disabilities, through integrated academic and behavioral support" (I-MTSS Research Network, 2023)." An I-MTSS framework includes key integrated components, including evidence-based and culturally relevant practices to support students, data to guide decisions, and systems (i.e., teaming and coaching structures, professional development, and other structures) to support high fidelity implementation over time and at scale. Although each component may be the focus of unique research, we define research on I-MTSS as the **systematic study of all I-MTSS** *components* implemented within an I-MTSS *framework*.

We offer a structure to consider both what we know, and what we still need to learn, about I-MTSS research. Figure 1 depicts a **vertical continuum** of research foci from *I-MTSS* components to an *I-MTSS* framework. Further, to bridge the research-to-practice gap, illustrated by the **horizontal continuum**, it is critical research extends beyond documenting initial efficacy in controlled conditions (i.e., that "it can work") to demonstrating that I-MTSS does work, with evidence of effectiveness—improvements in meaningful outcomes—in typical conditions.

I-MTSS Framework All components of I-MTSS framework with demonstrated efficacy in controlled conditions All components of I-MTSS framework with demonstrated efficacy in controlled conditions All components of I-MTSS framework with demonstrated effectiveness in typical conditions Practice Individual or cluster of components with demonstrated efficacy in controlled conditions Individual or cluster of components with demonstrated effectiveness in typical conditions

I-MTSS Components

Figure 1. Structure for considering I-MTSS research

What do we know? Summary of I-MTSS Research

Research supports efficacy of I-MTSS components (e.g., literacy practices) in controlled conditions and effectiveness in typical conditions (bottom of Figure 1; e.g., *What Works Clearinghouse*), though further research on integrating components is needed. Rigorous research also supports frameworks focused on either behavior, like positive behavioral interventions and supports (PBIS; e.g., Santiago-Rosario et al., 2023), or academics, like response to intervention (RtI) or MTSS for academics (e.g., Arias-Gundín & Llamazares, 2021). Reviewing this research is beyond the scope of the current brief. In this section, we highlight research on the efficacy of schoolwide implementation of an I-MTSS framework.

Emerging research suggests the promise of an I-MTSS framework (Stewart et al., 2007). The following studies exemplify research with documented student outcomes published in the peer-reviewed literature. All approaches integrated schoolwide reading and behavioral support (Tier 1), and some included additional intervention tiers. For each, we provide a brief citation, the I-MTSS focus (or framework name), and highlight the research design and outcomes below.

Study	I-MTSS Focus	Research Design	Outcomes*	
			Reading	Behavior
• Algozzine et al. (2012)	Schoolwide PBIS + Comprehensive Reading Model	Cluster Randomized Waitlist Control Trial	↑	↑
• Chaparro et al. (2020)	Effective Behavioral and Instructional Support System (EBISS)	Descriptive	1	?
• Ervin et al. (2006)	Michigan's Integrated Behavior and Learning Support Initiative (MIBLSI)	Descriptive	1	↑↓
• Lane & Menzies (2003a, 2003b, 2005)	Schoolwide Behavior Plan + District Literacy Plan	Descriptive	1	↑↓
• McIntosh et al. (2006)	Schoolwide PBIS + Scientifically-Based Reading Instruction	Descriptive	1	1
Noltemeyer & Sansosti (2012)	Interconnected Systems Model (ISM)	Descriptive & Predictive	1	?

^{*} \uparrow = improved (in desired direction), \downarrow = not improved $\uparrow \downarrow$ = mixed results, ? = outcome not reported

Mhat do we still need to learn? Future I-MTSS Research Agenda

Although emerging research highlighted in the last section demonstrates the promise of I-MTSS frameworks, additional research is needed to document the efficacy of I-MTSS across academic content areas (most research focuses on integrating reading) and school levels (most research is in elementary schools). It is also important to consider the counterfactual (Lemons et al., 2014); that is, what I-MTSS works better than. For example, members of the I-MTSS Research Network are currently studying whether I-MTSS practices work better than non-integrated practices (e.g., Project Basic, UConn I-MTSS). In the future, researchers may study whether I-MTSS frameworks work better than typical school practice and/or non-integrated frameworks (e.g., PBIS, MTSS for academics).

Research must also demonstrate the effectiveness of I-MTSS frameworks in typical conditions (top right of Figure 1). Currently, I-MTSS researchers are studying how to best support (e.g., <u>Project Enhance</u>) and measure (e.g., <u>Project IMFR</u>) I-MTSS implementation. Further research is also needed to explore whether I-MTSS promotes desired outcomes in typical conditions across contexts (e.g., school level, school size, locale, various student and educator populations), time (sustainability), and with additional sites (scalability). Given the amount we still need to learn about I-MTSS and the extent to which state and local education agencies are developing policy and practice related to I-MTSS (<u>I-MTSS Research Network, 2024</u>), there is a critical need to invest in ongoing (see <u>mtss.org</u>) and future I-MTSS research.

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