

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*.

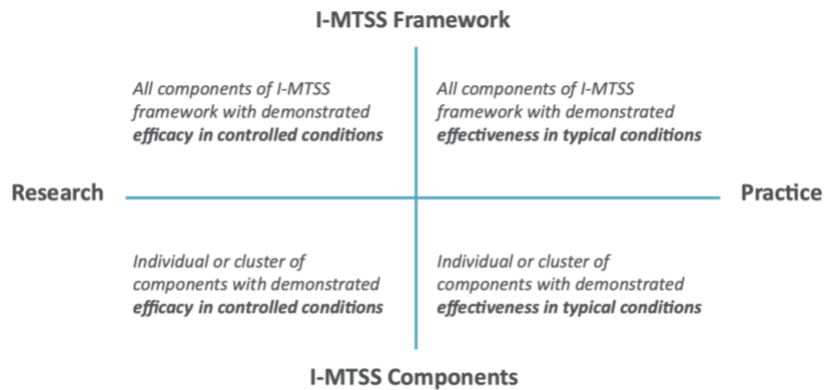


Figure 1. Structure for considering I-MTSS research

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	↑	↑
• Chapparo et al. (2020)	Effective Behavioral and Instructional Support System (EBISS)	Descriptive	↑	?
• Ervin et al. (2006)	Michigan’s Integrated Behavior and Learning Support Initiative (MIBLSI)	Descriptive	↑	↑↓
• Lane & Menzies (2003a, 2003b, 2005)	Schoolwide Behavior Plan + District Literacy Plan	Descriptive	↑	↑↓
• McIntosh et al. (2006)	Schoolwide PBIS + Scientifically-Based Reading Instruction	Descriptive	↑	↑
• Noltemeyer & Sansosti (2012)	Interconnected Systems Model (ISM)	Descriptive & Predictive	↑	?

* ↑ = improved (in desired direction), ↓ = not improved ↑↓ = mixed results, ? = outcome not reported

? What 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., [Project Enhance](#)) and measure (e.g., [Project IMFR](#)) 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 ([I-MTSS Research Network, 2024](#)), there is a critical need to invest in ongoing (see mtss.org) and future I-MTSS research.

Acknowledgements & Disclaimers

Mark Buckman, Steve Goodman, Blair Payne, Brandi Simonsen, & Heather Smith led this brief, with input from the broader I-MTSS Research Network. For an in-depth discussion of the concepts presented in this brief, please return to www.mtss.org in the future to access *Past, Present, and Future of Integrated Multi-Tiered Systems of Support Frameworks* (I-MTSS Research Network, in preparation). The Institute of Education Sciences, U.S. Department of Education, supports the I-MTSS Research network through Grant R324N180020 to the University of Connecticut. The opinions expressed are the authors' and do not represent views of the Institute or the U.S. Department of Education.

Recommended Citation

I-MTSS Research Network. (2024). *Does research support an integrated multi-tiered system of support framework?* Integrated Multi-Tiered Systems of Support Research Network, University of Connecticut, mtss.org.

References

- Algozzine, B., Wang, C., White, R., Cooke, N., Marr, M. B., Algozzine, K., Helf, S. S., & Duran, G. Z. (2012). Effects of multi-tier academic and behavior instruction on difficult-to-teach students. *Exceptional Children, 79*(1), 45–64. <https://doi.org/10.1177/001440291207900103>
- Arias-Gundín, O., & Llamazares, A. G. (2021). Efficacy of the RtI model in the treatment of reading learning disabilities. *Education Sciences, 11*(5). <https://doi.org/10.3390/educsci11050209>
- Chaparro, E. A., Smolkowski, K., & Jackson, K. R. (2020). Scaling Up and Integrating Effective Behavioral and Instructional Support Systems (EBISS): A Study of one state's professional development efforts. *Learning Disability Quarterly, 43*(1), 4–17. <https://doi.org/10.1177/0731948719851752>
- Ervin, R. A., Schaughency, E., Goodman, S. D., McGlinchey, M. T., & Matthews, A. (2006). Merging research and practice agendas to address reading and behavior school-wide. *School Psychology Review, 35*(2), 198–223. <https://doi.org/10.1080/02796015.2006.12087987>
- I-MTSS Research Network. (2023). *What is an Integrated Multi-Tiered System of Support?* Integrated Multi-Tiered Systems of Support Research Network, University of Connecticut, mtss.org.
- I-MTSS Research Network. (2024). *State(s) if I-MTSS implementation*. Integrated Multi-Tiered Systems of Support Research Network, University of Connecticut, mtss.org.
- Lane, K.L., & Menzies, H.M. (2003a). The effects of a school-based primary intervention program: Preliminary outcomes. *Preventing School Failure, 47* (1), 26-32. <https://doi.org/10.1080/10459880309604425>
- Lane, K. L., & Menzies, H. M. (2003b). A schoolwide intervention with primary and secondary levels of support for elementary students: Outcomes and considerations. *Education & Treatment of Children, 26*, 431–451. <http://www.jstor.org/stable/42899771>
- Lane, K. L., & Menzies, H. M. (2005). Teacher-identified students with and without academic and behavioral concerns: characteristics and responsiveness. *Behavioral Disorders, 31*(1), 65–83. <http://www.jstor.org/stable/23890401>
- Lemons, C. J., Fuchs, D., Gilbert, J. K., & Fuchs, L. S. (2014). Evidence-based practices in a changing world: Reconsidering the counterfactual in education research. *Educational Researcher, 43*(5), 242–252. <https://doi.org/10.3102/0013189X14539189>
- McIntosh, K., Chard, D. J., Boland, J. B., & Horner, R. H. (2006). Demonstration of Combined Efforts in School-Wide Academic and Behavioral Systems and Incidence of Reading and Behavior Challenges in Early Elementary Grades. *Journal of Positive Behavior Interventions, 8*(3), 146-154. <https://doi.org/10.1177/10983007060080030301>
- Noltemeyer, A., Sansosti, F.J. (2012). Tiered Models of integrated academic and behavioral support: Effect of implementation level on academic outcomes. *Contemporary School Psychology, 16*, 117–127.
- Santiago-Rosario, M. R., McIntosh, K., Izzard, S., Cohen-Lissman, D., & Calhoun, T. E. (2023). Is Positive Behavioral Interventions and Supports (PBIS) an Evidence-Based Practice? Center on PBIS, University of Oregon. www.pbis.org.
- Stewart, R. M., Benner, G. J., Martella, R. C., & Marchand-Martella, N. E. (2007). Three-Tier Models of Reading and Behavior: A Research Review. *Journal of Positive Behavior Interventions, 9*(4), 239–253. <https://doi.org/10.1177/10983007070090040601>