

ABSTRACT

Title of Capstone: A PHASED IMPLEMENTATION FRAMEWORK FOR SYSTEMWIDE SCALE-UP OF MULTI-TIERED SYSTEMS OF SUPPORT FOR BEHAVIOR (MTSS-B)

Michael Lybarger, Doctor of Education
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Capstone directed by: Professor Philip J. Burke, Department of Counseling,
Higher Education, and Special Education

The implementation of Multi-Tiered System of Supports for Behavior (MTSS-B), also referred to as Schoolwide Positive Behavior and Supports (SWPBIS), is a growing priority for schools seeking to promote positive student outcomes through evidence-based practices. However, sustainable and scalable implementation remains a challenge, particularly in the areas of Tier 2 and Tier 3 interventions, leadership team capacity, and staff turnover. This article provides a phased implementation framework designed to guide educational agency practitioners, MTSS-B Facilitators, and school-level MTSS-B Leadership Teams through phased implementation with benchmarks that emphasize fidelity, professional learning, universal screening, intervention development, and sustainability planning. Through a comprehensive research review of implementation science, Positive Behavioral Interventions and Supports (PBIS) research, and recent findings on timing and fidelity of MTSS installation, this framework integrates evidence-based tools and methods for systemic scale-up. Key findings highlight the importance of

intentional pacing in the installation of MTSS-B, data-informed intervention matching and progress-monitoring, and staff induction systems to mitigate the effects of staff turnover.

Practical guidance is provided in an MTSS-B Phased Implementation Plan for systems' MTSS-B Facilitators to guide school-level MTSS-B Leadership Teams when building systems that are operational, adaptive, and sustainable. This article contributes to the MTSS-B literature by synthesizing research into a practical, practitioner-focused, benchmark-driven model to support schools in achieving long-term fidelity, equity, and sustainability.

A PHASED IMPLEMENTATION FRAMEWORK FOR SYSTEMWIDE SCALE-UP OF
MULTI-TIERED SYSTEMS OF SUPPORT FOR BEHAVIOR (MTSS-B)

by

Michael Lybarger

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Advisory Committee:

Dr. Paula Beckman
Dr. Philip J. Burke, Chair
Dr. Agnesanne Danehey
Dr. Victoria Page-Voth
Dr. Donna Wiseman
Dr. Gulnoza Yakubova

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Dedication

This capstone is dedicated to the children whose brilliance is all-to-often overshadowed by the challenges of meeting classroom expectations. I hope this work may contribute to a future where students' unique needs are met with understanding and effective supports. This capstone is also dedicated to those compassionate teachers who, despite facing increasing behavioral needs with limited resources, tirelessly and relentlessly champion for their students. May this research offer support, tools, and strategies these individuals so desperately need and deserve.

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Table of Contents

Dedication.....	ii
Acknowledgements.....	iii
Table of Contents.....	vi
List of Tables	ix
List of Figures.....	x
List of Abbreviations	xi
Section 1: Introduction and Identifying the Problem.....	1
The Growing Concern: Problematic Behaviors in Schools	1
The Underlying Crisis: Limitations in Essential Support	3
The Solution Evolution: Emergence of Intervention Methodologies	4
The Contemporary Solution: Modern MTSS.....	6
The Behavioral Intervention Framework: MTSS-B	6
Statement of the Problem.....	9
Research Questions	9
Section 2: Comprehensive Research Review	10
Methods.....	11
Primary Search Procedures	11
Additional Search Procedures	15
Development of a Literature Matrix.....	19
Review of Literature	19
An Evidence-based Framework	20

MTSS-B Essential Features	27
Systemic Scale-up	42
Findings and Conclusions	53
Revealed Themes	54
Discussion	57
What Constitutes Effective MTSS-B Implementation?	57
How Does a System Know if Their MTSS-B is Working?	58
Connecting the Themes to the Research Questions	59
Section 3: A Plan	61
The Agency MTSS-B Leadership Team.....	61
The MTSS-B Phased Implementation Plan	65
Phase 1: Exploration & Adoption of Universal Practices	67
Phase 2: Installation & Expansion	72
Phase 3: Elaboration & Calibration.....	76
Phase 4: Maintenance & Sustainability.....	82
Section 4: Summary of Results.....	85
Expected Impact.....	85
Next Steps and Recommendations.....	86
Section 5: Product for Practitioners	88
Structure and Use	88
Implementation Phases.....	88
Sustainability and Long-Term Impact	89
Appendix: Literature Matrix.....	90

References..... 99

List of Tables

Table 1: <i>Phases, Benchmarks, and Indicators of Phase Changes</i>	66
Table 2: <i>The Launch of MTSS-B</i>	73

List of Figures

Figure 1: <i>PRISMA Flow Diagram of the Study Search and Review Process for Search 1</i>	13
Figure 2: <i>PRISMA Flow Diagram of the Study Search and Review Process for Search 2</i>	15
Figure 3: <i>Implementation Drivers, Adapted from Drivers Framework</i>	32
Figure 4: <i>Key Agency Components to Support the Success of MTSS-B Facilitators</i>	63
Figure 5: <i>MTSS-B Implementation Phases</i>	64
Figure 6: <i>Excerpt from TFI: Tier 1 Universal SWPBIS Features</i>	69
Figure 7: <i>8 Steps for Universal Behavior Support: Fidelity of Implementation Tool</i>	71
Figure 8: <i>The MTSS-B Intervention Inventory</i>	79
Figure 9: <i>Sample ES Intervention Inventory</i>	80

List of Abbreviations

BoQ	Benchmarks of Quality
CDC	U.S. Centers for Disease Control and Prevention
ESSA	Every Student Succeeds Act of 2015
IC	Innovation Configuration
IHE	Institutions of Higher Education
IPI	Implementation Phases Inventory
ISS	In school suspension(s)
MTSS	Multi-tiered Systems of Support
MTSS-B	Multi-tiered Systems of Support for Behavioral Health
NCES	National Center for Education Statistics
NSCH	National Survey of Children’s Health
ODR	Office discipline referral(s)
OSS	Out of school suspension(s)
PBIS	Positive Behavior Interventions and Supports
PD	Professional Development
PL	Professional Learning
RTI	Response to Intervention
SAEBRS	Social, Academic, and Emotional Behavior Risk Screener
SSOCS	School Survey on Crime and Safety
SET	School-Wide Evaluation Tool
SWPBIS	Schoolwide Positive Behavior Interventions and Supports
TFI	Tiered Fidelity Inventory

Section 1: Introduction and Identifying the Problem

Throughout the United States, educators are increasingly confronted with the challenge of managing problematic student behaviors within classrooms (The U.S. Surgeon General's Advisory, 2021; Weist, M. D., Garbacz, A., Schultz, B., Bradshaw, C. P., & Lane, K. L., 2024). General education teachers often report feeling inadequately prepared to proactively address or effectively respond to these behaviors. The rising frequency of these incidents means that valuable instructional time is lost, hindering both the teacher's ability to teach and the students' capacity to learn. (Bruggink, M., Meijer, W., Goei, S. L., & Koot, H. M., 2014; Guest, J. D., Ross, R. A., Childs, T. M., Ascetta, K. E., Curcio, R., Iachini, A., & Griffiths, L., 2024). Frequently, the students exhibiting problematic behaviors are the same students that struggle to meet the cognitive, social, or behavioral expectations in classroom settings (Gresham, F. M., Cook, C. R., Crews, S. D., & Kern, L., 2004; Guest et al., 2024). Recognizing and understanding the mental, social, emotional, and behavioral learning needs of these students is paramount, as this understanding can empower educators to easily access established support systems and implement appropriate strategies to meet the unique needs of these learners (The U.S. Surgeon General's Advisory, 2021).

The Growing Concern: Problematic Behaviors in Schools

The current climate in American classrooms signifies a growing and concerning trend with respect to the increase of problematic behaviors, which impact the educational process and well-being of both students and educators. Recent data emphasize the increasing frequency and intensity of these challenges. For instance, over 70% of teachers have reported a recent surge in disruptive behavior within their classrooms, a notable increase from the 66% reported in 2019 (Prothero, 2023). These disruptive behaviors have been reported to manifest in various ways,

including bullying, tantrums, defiant behavior, as well as more severe actions such as elopement, self-injury, and aggression (Prothero, 2023). In fact, the frequency of tantrum and defiant behavior proves to be particularly alarming, with more than half of teachers indicating these behaviors occur multiple times per week, and a quarter reporting multiple incidents daily. This prevalence of disruptive behavior has a clear impact on instructional time, with estimates suggesting that students lose approximately three weeks of learning each year due to these issues (Prothero, 2023).

School leaders are confirming these trends. In a 2023-2024 survey, 26% of public school leaders identified a "severe negative impact" on student learning in classrooms due to a lack of focus and inattention. Additionally, this lack of focus also affected teacher and staff morale, with an equal percentage of leaders reporting a severe negative impact (De La Rosa, 2024).

Additionally, the lasting effects of the COVID-19 pandemic must also be considered as a major contributing factor, as 83% of school leaders report the COVID-19 pandemic continues to negatively impact students' behavioral development. This aligns with findings from the National Education Association (NEA), whose survey highlighted student behavior as a top concern for educators during the 2022-2023 school year, second only to low pay (Long, 2024).

Recent data also indicate 20 percent of school-age children are currently receiving mental health services (Guest et al., 2024). In 2021, the United States Surgeon General's Advisory reported the primary indicator of school-age children being identified with a disability is mental health challenges, with 20 percent of this population reported to have a behavioral, emotional, developmental, or mental disorder (The U.S. Surgeon General's Advisory, 2021). Furthermore, in a 2022 National Survey of Children's Health (NSCH) report, it was estimated approximately 40 percent of children and adolescents will meet the diagnostic criteria for a mental disorder by

the age of 18 (Bitsko, R. H., Claussen, A. H., Lichstein, J., Lindsey, ;, Black, I., Sherry, M. ;, Jones, E., Danielson, M. L., Hoenig, J. M., Davis Jack, S. P., Brody, D. J., Gyawali, S., Maenner, M. J., Warner, M., Holland, K. M., Perou, R., Crosby, A. E., Blumberg, S. J., Avenevoli, S., ... Ghandour, R. M., 2022). This trend is further supported by recent findings from the United States Centers for Disease Control and Prevention (CDC). The CDC reported, one in seven United States children ages three to 17 have a current diagnosis of a behavioral or mental health condition, with 37% of these children holding two or more co-morbid conditions, with the most common diagnoses and prevalence indicated as Attention-Deficit/Hyperactivity Disorder (11.4%), anxiety (10%), behavior disorders (7%), and depression (4%) (U.S. Centers for Disease Control and Prevention, 2025).

The core of these growing concerns among professionals in education dwells in a profound and growing prevalence of unmet mental health needs among school-aged children. These numbers are not just statistics; they represent real children struggling with challenges that directly impact their ability to succeed in school. Adequate identification, prompt and appropriate interventions, and access to vital resources can dramatically alter a student's life trajectory.

The Underlying Crisis: Limitations in Essential Support

The increase in problematic behaviors in school settings is closely linked with a growing crisis in student mental health needs, with a significant portion of school-age children currently experiencing mental health challenges. More than one-third of school-aged children requiring mental health support gain access to these services exclusively through their local educational agency (Ali, M. M., West, K., Teich, J. L., Lynch, S., Mutter, R., & Dubenitz, J., 2019). A 2021-2022 School Survey on Crime and Safety (SSOCS) also revealed a significant discrepancy

between mental health assessment and intervention services among U.S. schools. While 49% of schools provide diagnostic assessments, only 38% offer intervention services (Irwin, V., Wang, K., Cui, J., & Thompson, A., 2024).

To compound the problems associated with the increasing need for, and limited access to, mental health services in school settings, there is currently a national workforce shortage concerning mental health professionals available to schools (Hendricker, E., Bender, S. L., & Ouye, J., 2021; Schmitz, S. L., Clopton, K. L., Skaar, N. R., Dredge, S., & Vanhorn, D., 2021). Studies also predict a persistent and growing shortage of mental health professionals, many emphasizing a critical need for innovative solutions addressing these school staffing shortages (Schmitz et al., 2021).

The gravity of this situation is exacerbated when considering both the access constraints regarding access to mental health services and the reality of escalating workforce shortages associated with mental health services across school settings. Unfortunately, the barriers preventing access to desperately needed social, emotional, and behavioral support within schools, places an undue burden on general education teachers and their students. A sustainable framework is necessary to ensure teachers and students are receiving needed supports.

The Solution Evolution: Emergence of Intervention Methodologies

The evolution of intervention methodologies within the field of education has been accompanied by a proliferation of acronyms, frameworks, and terms which frequently lead to complex and confusing professional discourse that often requires thoughtful unpacking. In addition to the ever-changing jargon, the composition of staff in schools, spanning multiple career stages and age groups, inevitably magnifies confusion. However, a brief synopsis of the evolution of intervention methodologies may provide relief.

The term Positive Behavioral Interventions and Supports (PBIS) resulted from the reauthorization of the Individuals with Disabilities Act in 1997. This transformation prompted the development of a multi-tiered framework focused specifically on behavioral interventions. Several years later, the term Response to Intervention (RTI) emerged from the 2004 reauthorization of IDEA. While PBIS focused on behavior, RTI focused on academics (primarily literacy and mathematics); however, both RTI and PBIS methodologies utilized a multi-tiered framework. While these frameworks may have seemed altruistic in concept, these practices were a way to save money (e.g., putting systematic interventions in place prior to costly assessment procedures and/or special education placement). States continued to institute both RTI and PBIS practices to maintain federal funding for special education programs, as well as to secure research grants (I-MTSS Research Network, 2023; McIntosh & Goodman, 2016).

On December 10, 2015, President Barack Obama signed United States Public Law 114-95, entitled *Every Student Succeeds Act* (ESSA). Section 8002, which included definitions for terms within the law, defined MTSS. “The term ‘multi-tier system of supports’ means a comprehensive continuum of evidence-based, systemic practices to support a rapid response to students’ needs, with regular observation to facilitate data-based instructional decision making” (Every Student Succeeds Act, 2015). The MTSS framework evolved through merging the preventive systems approach seen in RTI and the tiered framework for providing a continuum of supports found in schoolwide positive behavioral interventions and supports (SWPBIS) (McIntosh & Goodman, 2016). With an abundance federal funding behind it, the MTSS framework attracted attention from researchers and educational systems; and, to this day, the MTSS framework has evolved to become the standard of practice.

The Contemporary Solution: Modern MTSS

As educators across the United States have become increasingly aware of the escalating prevalence of disruptive behaviors, as well as the expanding, often unmet, needs of their student populations, the search for effective solutions has intensified. The development of the Multi-Tiered Systems of Support (MTSS) framework marked a pivotal shift in this pursuit. MTSS is rooted in the evolution of intervention methodologies within education; and, reflects a deepened understanding of optimal student support strategies.

Responding to the complex challenges posed by increasing problematic behaviors and the imperative to address unmet mental health needs, the MTSS framework has emerged as a promising educational theoretical framework. MTSS is a proactive and preventative system designed to meet the diverse needs of all students by ensuring that schools effectively utilize data-driven decision-making, continuous progress monitoring, and evidence-based supports and strategies with increasing levels of intensity to foster sustained student growth (pbis.org, n.d.).

The emphasis on MTSS as a framework has been significant, reflecting a flexible and adaptable approach that may be tailored to the specific needs of individual students within their schools. Furthermore, the integration of academic, social-emotional, and behavioral supports within the MTSS framework acknowledges the interconnectedness of these domains in promoting overall student success and well-being (I-MTSS Research Network, 2023). The holistic perspective the MTSS framework facilitates more targeted and effective interventions that address the underlying causes of student challenges.

The Behavioral Intervention Framework: MTSS-B

When taking into consideration, the growing challenges associated with disruptive student behaviors and their critical link to underlying mental health needs, the behavior-focused

features within an MTSS framework, commonly referred to as MTSS-B, are of particular significance. While the broader MTSS framework encompasses academic, social, and emotional supports, MTSS-B specifically addresses behavioral health within this tiered system (Briesch, A. M., Chafouleas, S. M., Nissen, K., & Long, S., 2020). MTSS-B is a proactive and preventative framework designed to support students' social, emotional, and behavioral needs within school settings.

The MTSS-B framework is a proactive and preventative framework designed to support students' social, emotional, and behavioral needs. The purpose of the framework is threefold:

1. It aims to create a positive and safe learning environment for all students.
2. It focuses on promoting students' social-emotional well-being and preventing behavioral problems.
3. It strives to improve student engagement, attendance, and academic outcomes.

The capacity in which MTSS-B utilizes a tiered system of support involves increasing levels of intervention based on students' needs and response to strategies within the following three tiers of support:

- **Tier 1 (Universal Support):** This involves school-wide strategies and practices that benefit all students. It includes establishing clear behavioral expectations, promoting positive behavior, and creating a supportive school climate.
- **Tier 2 (Targeted Support):** This provides additional interventions for students who are at risk of developing behavioral problems. It may involve small-group interventions, social skills training, or targeted support from schools' student support services staff.

- **Tier 3 (Intensive Support):** This offers individualized interventions for students with significant behavioral challenges. It may include individualized behavior plans, intensive counseling, or collaboration with community mental health providers.

Additionally, the MTSS-B framework is characterized by primary features that contribute to effectively supporting students. The following list provides the key features that define and drive the implementation an MTSS-B framework (PBIS IMPLEMENTATION BLUEPRINT, 2023):

- **Data-Driven Decision Making:** MTSS-B emphasizes the use of data to monitor student progress and make informed decisions about interventions.
- **Proactive and Preventative:** The framework focuses on preventing behavioral problems before they escalate.
- **Collaboration:** MTSS-B promotes collaboration among school staff, families, and community partners.
- **Focus on Social-Emotional Learning:** The framework recognizes the importance of social-emotional skills in promoting positive behavior and academic success.

In principle, an MTSS framework, when implemented with fidelity, is aimed at ensuring all students have the opportunity to thrive in their learning environments. MTSS-B is a key component of the MTSS framework with an emphasis on a comprehensive system of social, emotional, and behavioral supports designed to promote student wellness and enhance engagement in learning. MTSS-B effectively synthesizes research-based school mental health practices and social-emotional learning with an evidence-based tiered prevention framework grounded in the principles of PBIS. This targeted approach empowers schools to proactively

address behavioral challenges, cultivate positive school climates, and ultimately foster more conducive learning environments for all students.

Statement of the Problem

Schools throughout the United States are witnessing an unprecedented increase in students' mental health needs and associated problematic, disruptive behaviors. Schools routinely rely on reactive approaches to address problematic behavior, yet research highlights the persistent shortcomings among the interventions and programs frequently adopted by educational agencies. To appropriately confront system-wide appeals to address the increased needs regarding behavioral interventions and support, educational agencies need a comprehensive strategy for providing their schools with an evidence-based, systemic framework for addressing a full continuum of behavioral interventions and supports.

Research Questions

RQ1: What key elements does research suggest for effective implementation of an MTSS-B framework?

RQ2: What mechanisms does research suggest for evaluating the success of MTSS-B implementation?

Section 2: Comprehensive Research Review

As established in Chapter 1, there is a growing need among school staff for support, technical assistance, professional learning (PL), and strategies for addressing the significant increase in social-emotional and behavioral needs among student populations. This increased focus on student well-being highlights a significant challenge in education. In the 2021 publication, “Protecting Youth Mental Health”, the U.S. Surgeon General’s Advisory called upon schools to “expand social and emotional learning programs and other evidence-based approaches that promote healthy development” (The U.S. Surgeon General’s Advisory, 2021). Addressing such widespread and complex challenges effectively will require a comprehensive, integrated approach rather than isolated interventions.

Although the need to provide social-emotional learning and behavioral learning interventions has become increasingly apparent, education systems require resources, systems, and structures in order to provide these necessary interventions. Contemporary frameworks such as SWPBIS and MTSS have been among the most comprehensive and successful frameworks employed to ensure universal, targeted, and intensive interventions are accessible to students in school settings. However, educational agencies deploying such frameworks throughout their school systems often encounter barriers in systemic implementation and fidelity of implementation.

This comprehensive research review aims to identify the key literature that outlines the essential components for successful systemic implementation of MTSS-B, as well as evidence-based tools and criteria used to evaluate when the successful implementation of MTSS-B has been effectively achieved.

Methods

The procedures implemented in this comprehensive research review were initially guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, which is typically used for systematic reviews of empirical literature to ensure quality reporting. Although not all literature included in this review strictly met PRISMA's empirical criteria, the framework provided an effective process for identifying relevant sources while conducting primary search procedures for this review. Additional search procedures and research methodologies were also leveraged to further identify resources relevant to this comprehensive research review and will be described in context as they are introduced.

Primary Search Procedures

Initial search procedures involved accessing University of Maryland, University Libraries online EBSCOhost portal to search Academic Search Ultimate, APA PsycArticles, APA PsycInfo, Education Source, ERIC, Professional Development Collection, and Psychology and Behavioral Sciences Collection databases.

Search 1. The following Boolean/phrase query below was used while searching for relevant articles related to research question one: (mtss or multi-tier* system of support or pbis or positive behav* intervent* and supports) AND (framework or model or theory or approach) AND (scale up or roll out or rollout or implementation). Apply equivalent subjects was applied and 4,827 results were generated. The limiters full text, peer reviewed, publication dates 2016-2025 were added and 2,162 results were generated. The source type “academic journals” was selected and 1997 results were generated. Age criteria “school age (6-12 yrs)” and “adolescence (13-17 yrs)” were selected and 64 results were generated. The classification criteria “curriculum & programs & teaching methods” and “educational/vocational counseling & student services”

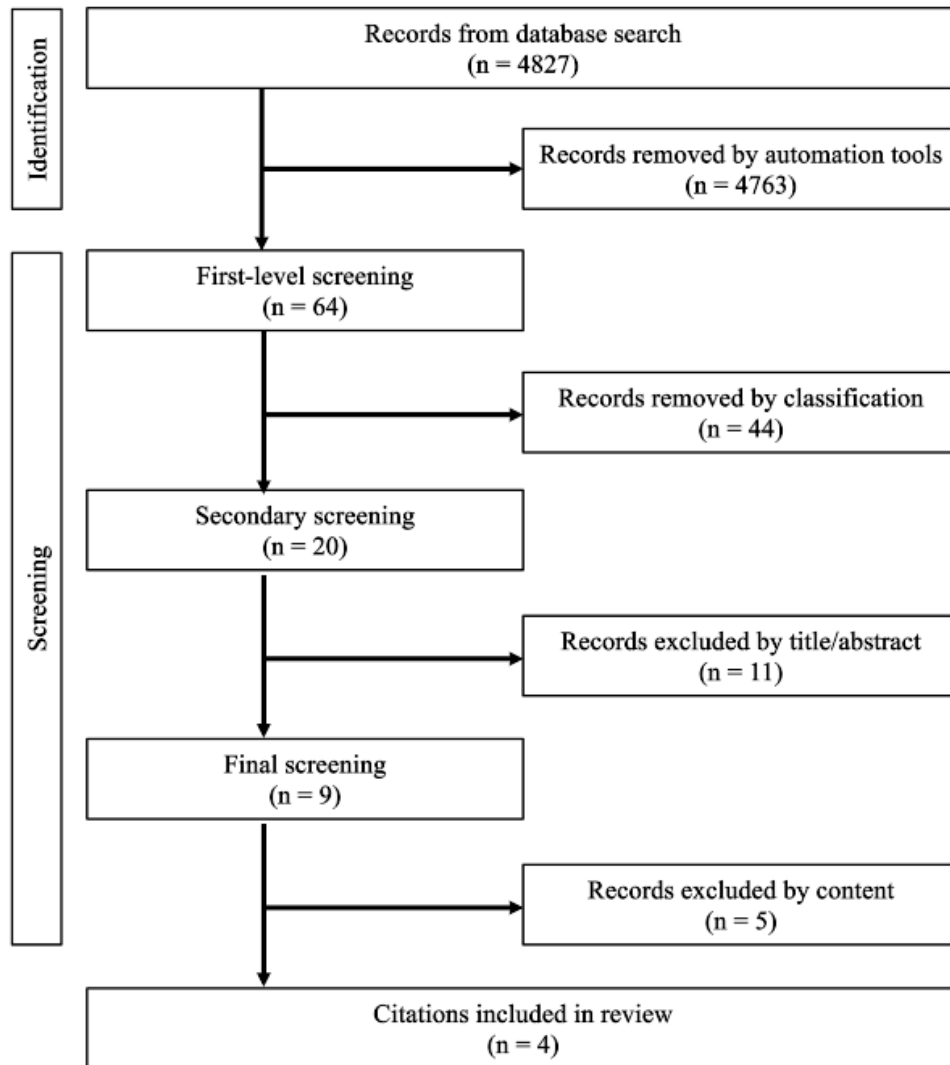
were selected, resulting in 20 results. Next, a title/abstract search was conducted to eliminate the following items which resulted in nine results:

- Trauma intervention
- Schools outside the U.S.A.
- Alternative or vocational schools
- Medical, health, or sports related interventions
- Only family outreach programs
- Gaming or cyberbullying-specific programs

The final nine articles were reviewed for content relevant to this comprehensive research review's research questions and four articles contained content relevant to this study. The PRISMA document inclusion flowchart for this initial search may be found in Figure 1.

Figure 1:

PRISMA Flow Diagram of the Study Search and Review Process for Search 1



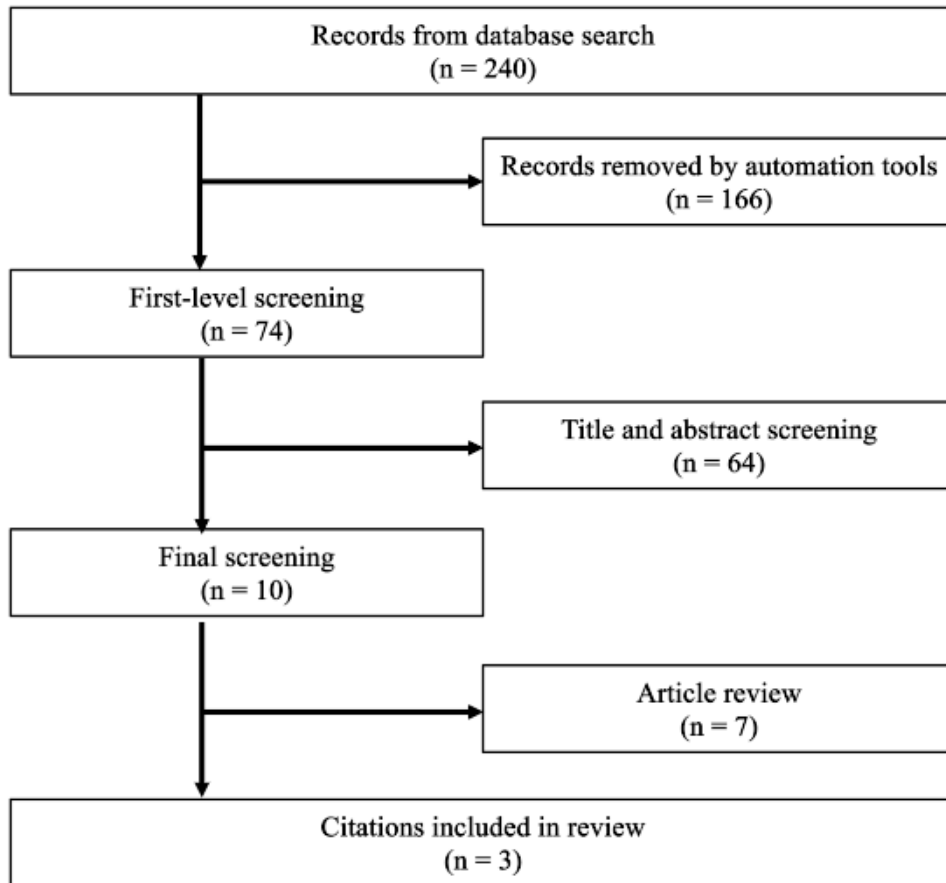
Search 2. Following the initial query searching for articles relevant to research question one, the following, additional, Boolean/phrase query was used within the ERIC and Open Dissertations databases to identify literature relevant to research question two: (mtss or multi-tier* system of support or pbis or positive behav* intervent* and supports) AND (scale up or roll out or rollout or implementation or initiative) AND (meta-analysis or systematic review or

dissertation) AND (behavior) NOT (social or social emotional or mental health). Apply equivalent subjects was applied and 240 results were generated. The limiters publication dates 2016-2025, subject of “program implementation”, and source types “Dissertations” and “Academic Journals” were selected. These limiters generated a list of 74 results.

A physical screening of titles and abstracts was conducted to identify articles directly related to research question one. Ten articles were identified through this screening process (n = 10). Following the title and abstract screening, the final ten articles were reviewed, and three of the ten articles were selected for inclusion in this comprehensive research review (n = 3). The PRISMA document inclusion flowchart for this second search may be found in *Figure 2*.

Figure 2:

PRISMA Flow Diagram of the Study Search and Review Process for Search 2



Additional Search Procedures

To ensure a thorough comprehensive research review was performed, additional search procedures were applied beyond the initial database queries. These included bibliometric techniques such as backward and forward searching (commonly referred to as “snowballing”) to identify relevant literature cited by or citing foundational articles. Searches based on known authors in the field were also conducted to uncover any additional contributions that may not have emerged through keyword searches. Additionally, the examination of grey literature was

included to capture insights beyond academic publications to provide a more comprehensive understanding of the complex landscape of literature focused on MTSS-B implementation.

Bibliometric Analysis. After conducting the primary search procedures and reviewing the included articles, a bibliographic search emerged as a logical and valuable methodology necessary for a comprehensive research review. Several scholars in this area of research emerged as repeated references while conducting literature reviews from primary searches. Literature discovered through these procedures uncovered noteworthy resources regarding the implementation of SWPBIS and MTSS-B; and therefore, these search procedures were included in this comprehensive research review to uncover this additional and meaningful research. For example, “A Randomized Controlled Trial of MTSS-B in High Schools: Improving Classroom Management to Prevent EBDs” (C. Bradshaw et al., 2020), an article discovered in *Search 1*, led to additional articles directly connected to the research being conducted in this study; such as, “The Relationship Between School-Wide Implementation of Positive Behavior Intervention and Supports and Student Discipline Outcomes” (Childs, K. E., Kincaid, D., George, H. P., & Gage, N. A., 2016) and “Secondary and Tertiary Support Systems in Schools Implementing School-Wide Positive Behavioral Interventions and Supports: A Preliminary Descriptive Analysis” (Debnam, K. J., Pas, E. T., & Bradshaw, C. P., 2012).

The following list of articles were discovered through the backward search procedures from the four articles in Search 1:

- “Altering School Climate Through School-Wide Positive Behavioral Interventions and Supports: Findings from a Group-Randomized Effectiveness Trial” (Bradshaw, C. P., Koth, C. W., Thornton, L. A., & Leaf, P. J., 2009).

- “A State-Wide Quasi-Experimental Effectiveness Study of the Scale-Up of School-Wide Positive Behavioral Interventions and Supports” (Pas, E. T., Ryoo, J. H., Musci, R. J., & Bradshaw, C. P., 2019).
- “A Promising Approach for Expanding and Sustaining School-wide Positive Behavior Support” (Sugai & Horner, 2006).

An additional backward search using the three identified articles from Search 2 revealed the following articles:

- “Examining Barriers to Sustained Implementation of School-Wide Prevention Practices” (Turri, M. G., Mercer, S. H., McIntosh, K., Nese, R. N. T., Strickland-Cohen, M. K., & Hoselton, R., 2016).
- “Statewide Implementation of Evidence-Based Programs” (Fixsen et al., 2009).

Known Author Searches. Guided by the prominence and scholarly contributions in the field, the following list of key researchers was also generated and used in author-focused research: Catherine P. Bradshaw, Dean L. Fixsen, Rachel Freeman, Robert H. Horner, Sara C. McDaniel, Elise T. Pas, Wayne Sailor, and George Sugai. This known-author search methodology facilitated connections to several articles relevant to this comprehensive research review. Specifically, the following articles were selected for inclusion in this comprehensive research review:

- “Secondary and Tertiary Support Systems in Schools Implementing School-Wide Positive Behavioral Interventions and Supports: A Preliminary Descriptive Analysis” (Debnam et al., 2012).
- “Implementation Research: A Synthesis of the Literature” (Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F., 2005).

- “Investigating the Effect of School-wide Positive Behavioral Interventions and Supports on Student Learning and Behavioral Problems in Elementary and Middle Schools” (Ryoo, J. H., Hong, S., Bart, W. M., Shin, J., & Bradshaw, C. P., 2018).
- “Tier 2: Critical Issues in Systems, Practices, and Data” (Bruhn & McDaniel, 2021)
- “Preparing Teacher Educators for Statewide Scale-Up of Multi-Tiered System of Support” (MTSS) (Sailor, W., Skrtic, T. M., Cohn, M., & Olmstead, C., 2021).
- “Sustaining and Scaling Positive Behavioral Interventions and Supports: Implementation Drivers, Outcomes, and Considerations” (Sugai & Horner, 2020).
- “Integration of Academic and Behavioral MTSS at the District Level using Implementation” (Freeman & Newcomer, 2015).

Grey Literature and Text. This comprehensive research review would be remiss without searching beyond traditional academic publications. Therefore, grey literature (reports, policy documents, practitioner resources, etc.) was also investigated. This body of work, while not always peer-reviewed, offers valuable perspectives from the field and reflects current practice, implementation challenges, and policy developments that may not currently be represented in scholarly journals. During this comprehensive research review, grey literature provided insight and understanding with respect to MTSS-B through the lens of practice and policy. Given the applied nature of this study, reviewing grey literature was especially important in bridging the gap between theory and practice. The list below highlights grey literature and text resources found to be connected to this study’s research questions.

- *PBIS implementation blueprint* (PBIS IMPLEMENTATION BLUEPRINT, 2023)
- Teacher-delivered behavioral interventions in grades K-5: A practice guide for educators (Lane, K. L., Baldy, T., Becker, T., Bradshaw, C., Dolan, V., McIntosh, K., Nese, R.,

Payno-Simmons, R., Sutherland, K., Dymnicki, A., Freeman, B., Lemire, S., Moulton, S., Porowski, A., Anlar, L. H., & Jacobson, J., 2024)

- IES MTSS-B trial: Key takeaways for district and state leaders (McIntosh, K., Herman, K., Bradshaw, C., & Simonsen, B., 2023)
- *Reframing organizations* (Bolman & Deal, 2021)

Development of a Literature Matrix

In an effort to organize and synthesize the literature accumulated during this comprehensive research review, a literature matrix was developed to aggregate the literature for analysis (see Appendix A). The intent of the literature matrix was to systematically capture key information from each source, including parenthetical citation, study title, a brief connection to the problem of practice, primary focus, research questions/purpose, design, sample/participants, independent variable(s), dependent variable(s), procedures, and results. By providing a structured format for comparison across studies, the matrix supported the identification of patterns, gaps, and emerging themes within the aggregated literature. The literature matrix also served as a means of ensuring consistency and transparency regarding how sources were evaluated and integrated into the broader review.

Review of Literature

This comprehensive research review aims to provide a thorough and robust collection of literature surrounding MTSS-B with a focus on findings relevant to the research questions proposed in this study. The following review of literature was arranged into three primary sections with the intention of aligning with the objectives of this study. These sections include: (a) An Evidence-based Framework, (b) Essential Features of MTSS-B, and (c) Systemic Scale-up of MTSS-B.

An Evidence-based Framework

The notion of a comprehensive MTSS framework emerged through the gradual integration of two previously distinct initiatives, RTI and SWPBIS. Both frameworks were developed in response to federal policy efforts aimed at improving educational outcomes through early identification and intervention for students at risk for academic or behavioral deficits.

RTI gained national attention following the reauthorization of the Individuals with Disabilities Education Act (IDEA) in 2004, legislation which endorsed RTI as a valid methodology for identifying students with academic deficits. RTI highlighted data-driven and tiered interventions delivered with increasing intensity based on student need. Meanwhile, SWPBIS, supported by earlier federal investments and national technical assistance centers, focused on proactive, school-wide behavioral supports rooted in prevention science and systems change.

While RTI and SWPBIS initially targeted vastly different objectives, both frameworks endorsed a tiered service delivery model which included data-based decision-making and evidence-based practices. Over time, these frameworks' similarities converged into MTSS, a framework designed to support the whole child through integrated academic, behavioral, and social-emotional interventions.

The passage of ESSA in 2015 brought MTSS to the foreground as the preferred framework for educational equity and school improvement. ESSA explicitly promoted MTSS as a mechanism to improve student outcomes and reduce disparities using tiered support systems. Within this integrated model, MTSS-B represents the evolution of SWPBIS within the MTSS structure, preserving its behavioral focus while aligning it more closely with academic and social-emotional supports.

In the individual literature reviews that follow, references to MTSS-B and SWPBIS will be used in accordance with the terminology adopted by the original studies under review. However, it is important for readers to recognize that these terms are conceptually synonymous. Both refer to tiered systems of behavioral support grounded in prevention, systems-level implementation, and data-informed practices. The evolution of these frameworks throughout the 2000s has given rise to a robust and multifaceted body of research that continues to inform policy, practice, and outcomes in schools across the United States. To better understand the evidence supporting MTSS-B, the following section reviews key empirical studies that examine its implementation and outcomes.

In the first study reviewed, *Longitudinal Disciplinary and Achievement Outcomes Associated with School-Wide PBIS Implementation Level*, the authors introduced several key concepts associated with Tier 1 SWPBIS implementation (James, A. G., Noltemeyer, A., Ritchie, R., Palmer, K., & University, M., 2019). In this 2019 quantitative, non-experimental, longitudinal designed study, the authors introduced several key concepts associated with Tier 1 SWPBIS implementation. The sample included 85 schools (41 elementary, 14 middle, and nine high schools) across 31 school districts in Ohio. This 2-year longitudinal study examined the dependent variables, academic and behavioral outcomes, with respect to the independent variable, fidelity of implementation. The Tiered Fidelity Inventory (TFI) was the measure used to determine PBIS implementation fidelity during the 2015-2016 and 2016-2017 school years. The research question proposed was, “Do changes in SWPBIS implementation (based on TFI scores) between two academic years predict changes in student suspension rates and/or achievement over the same time period?”(James et al., 2019) Suspension rate data was defined as the number of out of school suspensions (OSS) per 100 students. Achievement data was defined

as the performance index score, a score calculated based on state achievement tests (James et al., 2019).

A significant finding from this study noted increased Tier 1 PBIS implementation fidelity is inversely related to disciplinary outcomes; however, the academic outcomes examined in this study did not indicate a statically significant correlation. Regarding this study's limitations, the authors considered the reliability regarding the data accessed for this study, noting only 2% of schools among those in Ohio were included in the study and these were participating schools, not randomly selected. The authors noted systematic reasons why some schools may not have participated in the study, which contributed to limitations. Additionally, the short duration of this longitudinal study, the narrow focus regarding dependent variable data, and a limited focus on Tier 1 PBIS implementation may all contribute to this study's limitations.

The second study, titled *The Relationship Between School-Wide Implementation of Positive Behavior Intervention and Supports and Student Discipline Outcomes*, accessed data from a larger national dataset but focused its analysis on 1,122 Florida schools (Childs et al., 2016). This study utilized data from 1,122 Florida schools (724 elementary, 248 middle, and 150 high schools). Using data analysis techniques, the study's focus was reported to examine "the impact of SWPBIS on student outcomes (office discipline referrals [ODRs], in-school suspensions [ISSs], out-of-school suspensions [OSSs]) and the possible relationship between implementation fidelity and those student outcomes" (Childs, K. E., 2016). Therefore, this 4-year longitudinal study examined the dependent variable, disciplinary outcomes, with respect to the independent variable, fidelity of implementation. The fidelity of implementation measure used for this study was the Benchmarks of Quality (BoQ) SWPBIS implementation fidelity measure (Childs et al., 2016).

This study found a correlation between high implementation fidelity (> 80%) and lower discipline outcomes across all three dependent variables; however, once high implementation fidelity was reached, sustained fidelity did not produce further effects on discipline outcomes during the four-year study. The authors also provided limitations regarding this study. They noted, data was only accessed and analyzed for one state, which limits the generalizability of the findings. Another limitation includes the BoQ data used in this study was self-reported, which may affect the reliability of this data. Additionally, the narrow focus regarding the three dependent variable measures, and a limited focus on Tier 1 PBIS implementation may all contribute to this study's limitations.

The third study, *Disciplinary and Achievement Outcomes Associated with School-Wide Positive Behavioral Interventions and Supports Implementation Level*, examined data from 153 schools across 55 school districts (Noltemeyer, A., Palmer, K., James, A. G., & Petrusek, M., 2019). In this quantitative, non-experimental study, the authors examined the relationship between PBIS implementation fidelity and both disciplinary and academic outcomes. The sample included 76 elementary, 31 middle, and 19 high schools. The data used for this study was collected during the 2015-2016 school year. Using descriptive statistics, the study examined the dependent variables, academic and behavioral outcomes, with respect to the independent variable, fidelity of implementation. The Tiered Fidelity Inventory (TFI) was the metric used to examine PBIS implementation fidelity among schools and the academic outcome metric used for academic outcomes was the schools' performance index score, a score calculated based on state achievement tests. The metric used for behavioral outcomes was the OSS per 100 student rates (Noltemeyer et al., 2019).

This study's findings noted a correlation between implementation of PBIS Core Tier 1 Components implementation with fidelity and positive behavior outcomes. Results were inconclusive regarding academic outcomes. Some limitations were also provided by the authors of this study. They noted, this study indicates a correlation and doesn't indicate a causal relationship. Also, the imbalance among the sample schools (nearly half were elementary) and examining schools in one state (Ohio) limits the generalizability of this study's findings. Additionally, the narrow focus regarding the singular dependent variable metrics and a limited focus on Tier 1 PBIS implementation may all contribute to this study's limitations.

Shifting from state-level samples to a large-scale, quasi-experimental design, the next study highlights outcomes from the statewide scale-up of PBIS in Maryland. In *A State-wide Quasi-Experimental Effectiveness Study of the Scale-up of School-Wide Positive Behavioral Interventions and Supports*, the researchers investigated longitudinal effects across more than 1,300 public schools (Pas et al., 2019). In this quasi-experimental non-equivalent control group study, the authors examined the longitudinal effects of SWPBIS among 1,316 Maryland public schools across 24 school districts in the state. 897 elementary and 437 middle and high schools were included in this study. Independent variables included: (a) training status, schools reported as "trained" or "not trained", (b) implementation fidelity, as measured bi-annually using the School-Wide Evaluation Tool (SET), and (c) implementation phase, as measured bi-annually using the Implementation Phases Inventory (IPI). Dependent variables included: (a) school-level suspension rates, (b) truancy rates, (c) academic proficiency, including reading and mathematics standardized achievement assessments. This study examined data for six school years from the 2006-2007 school year to the 2011-2012 school year (Pas et al., 2019).

This study's findings noted, in elementary settings, significant improvements regarding suspensions, reading proficiency, and mathematics proficiency were noted among schools implementing SWPBIS for multiple years. In secondary settings, truancy and mathematics proficiency showed medium effect sizes; while reading proficiency showed a large effect size and suspension showed a small effect size. Additionally, positive correlations between training status and implementation fidelity as well as development of fidelity over time and student outcomes were found.

Limitations were also addressed in this study. The Inclusion of schools in one state (Maryland) and combining middle and high school data both pose limits regarding the generalizability of this study's findings. Additionally, the narrow focus on SWPBIS Tier 1 implementation, without including advanced tiered fidelity data, poses reliability questions regarding the correlations reported.

The fifth study included in this review was *Investigating the Effect of School-wide Positive Behavioral Interventions and Supports on Student Learning and Behavioral Problems in Elementary and Middle Schools* (Ryoo et al., 2018). In this quasi-experimental control group study, the authors examined the longitudinal effects associated with Tier 1 SWPBIS implementation over a 3-year period in Minnesota. The sample included two cohorts. Cohort one included 32 elementary schools starting with third grade and cohort 2 included 34 middle schools starting with fifth grade. School-level data was collected during the school years 2007-2008 through 2009-2010. Dependent variable data included: (a) Minnesota Comprehensive Assessment - Series II tests scores for the 2007-2008 and 2008-2009 school years and Minnesota Comprehensive Assessment - Series III tests scores for the 2009-2010 school year and (b) ISS

and OSS school-level suspension rates. The independent variables focused on SET and BoQ implementation fidelity scores (Ryoo et al., 2018) .

Some anomalous findings were revealed within this study. For example, during the study, changes in suspension rates between cohort groups and comparison groups were not significantly different. Additionally, reading and mathematics standardized test score results among cohort and comparison groups demonstrated no significant differences.

The results from this study lead the reader to examine this Minnesota study's limitations, which were included in its discussion section. For instance, the small sample sizes and relatively short duration of this study were listed as potential barriers to the reliability and generalizability of findings. Another limitation included the narrow scope of the dependent variable data analyzed to derive outcomes. Finally, this study examined the implementation fidelity and SWPBIS Tier 1 implementation and also reported the cohort schools were not implementing advanced tiers or other intervention efforts.

Finally, the most recent study in this section of the research review introduces evidence regarding the additive effects of advanced tier implementation in reducing disciplinary exclusions. This study, *The Additive Effects of Implementing Advanced Tiers of SWPBIS with Fidelity on Disciplinary Exclusions*, analyzed data from more than 500 California schools that had achieved a minimum level of Tier 1 fidelity (Grasley-Boy, N. M., Gage, N. A., Lombardo, M., & Anderson, L., 2022). In this quantitative non-experimental study, the aim was to determine if there was a statistical significance difference when comparing disciplinary exclusions among schools implementing SWPBIS Tier 1 only, and those implementing Tier 1 and advanced SWPBIS tiers. This study accessed data from the California PBIS Coalition to obtain school year 2015-2016 SWPBIS implementation fidelity data (TFI data collected by an

external evaluator). Researchers examined data from 1,384 California schools and identified 558 schools that met inclusion criteria (minimum TFI of 70%) and binned the schools based on tier and achieved fidelity to include: Tier 1 only (n = 350), Tiers 1 and 2 (n = 113), Tiers 1 and 3 (n = 15), or all three tiers (n = 80). The dependent variables included 10 disciplinary categories to include: “(a) students with any ISS, (b) students with one OSS, (c) students with two or more OSS, (d) any OSS (i.e., the sum of students receiving one OSS and two or more OSS), (e) OSS incidents, (f) days of school missed due to OSS, (g) students expelled, (h) students referred to alternative schools for discipline issues, (i) students referred to law enforcement agencies or officials, and (j) students with school-related arrests” (Grasley-Boy et al., 2022).

This study presented many findings through a significant set of tables and data sets regarding the various independent and dependent variables. One noteworthy finding included statistically significant lower rates of one OSS, OSS incidents, and referrals to law enforcement among schools implementing all three tiers of SWPBIS with fidelity. Other disciplinary categories did not result in statistically significant lower rates; however, limitations among the presented data were evident. While the authors provided demographic data regarding the sampled schools (74.4% elementary, 16.7% middle, and 7.7% high school), data was not presented in a manner that provided comparisons among these categories. Based on prior studies, disaggregating the data further; for example, an examination of the outcomes in only elementary schools, may have provided additional insights regarding the effects of SWPBIS on disciplinary exclusions.

MTSS-B Essential Features

To this point, the evidence base provided a rationale for adoption of MTSS-B as a framework to address problematic behaviors in schools; but, implementation with fidelity relies

on a clear understanding of the essential features which define and sustain the framework. The literature reviews within this section intend to provide a comprehensive review of literature focused on the foundational components of MTSS-B, including tiered intervention practices, data-based decision-making processes, and systems-level infrastructure. Grounded in implementation science, the selected studies within this section shift the focus toward the structural and procedural elements necessary for fidelity of implementation, responsiveness across tiers, and sustainability.

One of the most influential pieces in this category was titled *A Promising Approach for Expanding and Sustaining School-Wide Positive Behavior Support* (Sugai & Horner, 2006). While published in 2006, this article is among the most widely cited works regarding the topic of SWPBIS. Rather than presenting original research, this article synthesized prior studies and introduced a proposed framework for SWPBIS. The article was partly funded by a grant from the Office of Special Education Programs, U.S. Department of Education and the Technical Assistance Center on Positive Behavioral Interventions and Supports. As the title indicated, this article introduced a promising approach (e.g., a proposed framework). Authored by researchers George Sugai and Robert Horner, the article was not a research study but rather a synthesis of existing research that described and outlined the key features of the proposed SWPBIS framework (Sugai & Horner, 2006).

In this article, the authors introduced the three guiding principles associated with SWPBIS: (a) prevention, (b) evidence-based practice, and (c) systems implementation. Expanding on systems implementation, key features necessary for the application and sustained implementation of SWPBIS were introduced:

- **leadership team:** First and foremost, SWPBIS requires a leadership team to lead and coordinate the efforts of the initiative.
- **funding:** Stable and sustainable funding needs to be secured to ensure the activities the leadership team establish within their action plan may be carried out with fidelity.
- **visibility:** Clear and transparent communication and involvement among all stakeholders, which focus on highlighting activities, accomplishments, and encourage involvement and feedback, are foundational to successful implementation.
- **political support:** Securing support from policy and decision makers enable long-term support and establish SWPBIS as a systemic priority.
- **training:** Building capacity among all school staff facilitates initial and sustained implementation of SWPBIS with fidelity. This ensures SWPBIS features, practices, and systems are implemented with fidelity.
- **coaching:** School-level staff and leadership teams require frequent and direct coaching to build capacity at schools to facilitate accuracy and consistency with SWPBIS implementation.
- **evaluation:** This is another key feature in the implementation of SWPBIS. Evaluation features include accessing, selecting, and interpreting the outcome data needed to inform decision making.

The authors expanded on these features by indicating, evaluation of implementation fidelity assists the leadership team, specifically when developing action plans. Additionally, within this framework, leadership teams consider the following questions in the evaluation process:

- What resources and expertise are needed to conduct the evaluation?

- What general and specific evaluation questions are needed to address measurable outcomes?
- What type of data sources should be collected to answer evaluation questions?
- What activities need to be added, eliminated, or modified in the action plan? (Sugai & Horner, 2006)

In their systematic review, *A Review of State-Level Procedural Guidance for Implementing Multitiered Systems of Support for Behavior (MTSS-B)*, Briesch et al. (2020) examined state education agency documents and identified significant gaps in Tier 2 and Tier 3 guidance. In this systematic review, each state's implementation and guidance documents regarding MTSS were identified in spring 2017. Search procedures, inclusion criteria, coding procedures, as well as interrater reliability and training procedures were transparently presented in this article. The research team discovered 181 MTSS implementation and guidance documents; and, after a complete review, 44 documents met inclusionary criteria for this review. These documents resulted in 26 state departments of education for inclusion in this review. The researchers intended to answer the following questions:

To what extent do state departments of education provide information regarding: (a) The types of social, emotional, and behavioral interventions that should be used with those students identified as at-risk for or exhibiting behavioral concerns? (b) Appropriate measures to use in progress monitoring for behavioral concerns? (c) How often behavioral progress monitoring data should be collected? (d) How often behavioral progress monitoring data should be reviewed? And (e) What decision rule(s) should be used for evaluating response to behavioral intervention? (Briesch et al., 2020)

Throughout the systematic review, no documents providing procedural guidance Tiers 2 and 3 in an MTSS-B framework were found. 18 states provided examples of social, emotional,

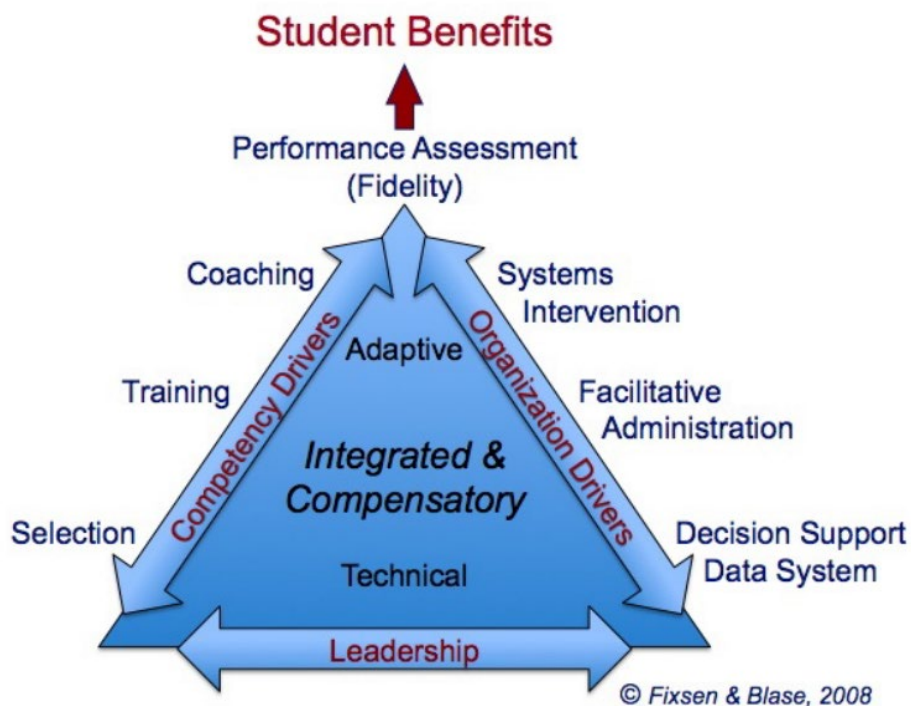
and behavioral interventions. 21 states mentioned progress monitoring tools, with office discipline referrals (ODR) being the most prevalent (n = 12), followed closely by direct observation (n = 11), point sheets/teacher checklists (n = 9), intervention-generated data (n = 7) and teacher ratings (n = 6). Nine states provided documents regarding data collection and data review frequency; however, specifics were vague or not addressed. Regarding response to interventions, five states included recommendations; but recommendations pointed to student-specific goals.

One of the primary limitations regarding this study surrounds the nature of the documentation being reviewed. While an examination of state guidance regarding MTSS-B reveals important systemic shortcomings, further review of documentation below the state level (e.g., regional or district level guidance) may provide a better understanding of school-level implementation of MTSS-B.

The dissertation *Multi-Tiered System of Supports (MTSS) and Implementation Science* investigated how competency, organizational capacity, and leadership (the three drivers of implementation science) affected student outcomes in large California school districts (Scott, J., Brandon Gamble, E., Heidi Gilligan, E., Pavri, S., & Christina Dillard, B., 2017). This dissertation, by Christina Dillard, was a quantitative study focused on identifying the attributes from implementation science that impact MTSS implementation in schools (Scott et al., 2017). Specifically, this study examined the influence implementation drivers (independent variables): (a) competency, (b) organization, and (c) leadership has on reported student outcomes (dependent variables). The theoretical framework for this study was based on implementation drivers adapted from a 2008 article titled Drivers Framework (Fixsen & Blase, 2008). Figure 3 provides a visual representation of the theoretical framework used for the study.

Figure 3:

Implementation Drivers, Adapted from Drivers Framework



The author presented the context in which this study was conducted. The author selected schools among the largest 25 California school districts, with an explanation regarding the exclusion of “special education, primary schools, continuation, community day and alternative schools” (Scott et al., 2017). The sample of principals from the participating schools included 2,718 principals. Surveys, the primary data collection method, were distributed to the sample and 135 completed surveys were collected for the study (Scott et al., 2017).

In the “Results” section of this study, the author expressed the following four primary findings:

- **parent involvement:** Parent involvement is needed for implementing and evaluating MTSS. “Scaling up MTSS requires scaling up parent systems for the state, counties and districts.” (Scott et al., 2017)

- **technical assistance:** “Implementing MTSS requires professional development, coaching, data management systems, staffing, funding, fidelity assessments, parent engagement, written plans, progress monitoring, and screening tools that are often beyond a school site leadership team’s training (Samuels, 2016). What makes implementation of MTSS even more complicated is that it requires a significant amount of skill and knowledge in both academic and social-emotional behavior EBPs that is often beyond a school site team’s expertise. Therefore, the following recommendations will be made to in the areas of policy, practice and research to provide schools the technical assistance they need for sustainable MTSS.”(Scott et al., 2017).
- **program evaluation:** Program evaluation tools need to be part of the system. An MTSS implementation rubric, a fidelity of implementation measure, and outcome/success data standards need to all be part of program evaluation.
- **budget allocation:** Systemwide scale-up of MTSS requires funding and budget allocation so schools and districts may build and sustain an infrastructure of “coordinated supports, policies, procedures, training, and coaching” (Scott et al., 2017).

Some possible limitations regarding this dissertation’s study include the relatively small sample size, as well as the bias associated with voluntary and self-reported survey participation among school administrators are the primary limitations within this study. As a result, generalizing the findings from this study is impractical without replications of this study or synthesis with existing literature through systematic review or meta-analytic approaches.

In *Implementation Research: A Synthesis of the Literature*, a 2005 synthesis of literature, the authors stated the purpose of the monograph was to provide a comprehensive review the existing body of research regarding implementation science, synthesize findings, and

describe the findings associated with program implementation (Fixsen et al., 2005). This monograph, published by the National Implementation Research Network (NIRN) at the University of South Florida, primarily focused on factors influencing effective implementation of evidence-based practices in social services environments (Fixsen et al., 2005). The authors accessed a wide range of literature to synthesize key findings about the processes, strategies, and challenges involved in implementation of research-based interventions.

Authors offered guidance to researchers, practitioners, and policymakers involved in the process of implementing evidence-based practices. The authors emphasize, successful program implementation requires a multi-faceted approach, taking into consideration both top-down and bottom-up strategies. Another important aspect included considerations for both individual and organizational capacity. Key factors introduced were leadership, stakeholder engagement, and ongoing evaluation. This publication provides a foundation for implementation research and provides a framework for understanding how to scale-up and sustain interventions and initiatives through a systemic perspective (Fixsen et al., 2005).

This monograph identified several key findings relevant when planning effective systemic implementation. Key points relevant to this study included:

- Successful implementation requires a coordinated approach involving both organizational and system-level supports.
- Attention to factors such as the readiness of the system, leadership support, and the involvement of stakeholders at all levels is paramount.
- Sustained implementation depends on both initial training and ongoing technical assistance.
- Continuous program evaluation and proactive action planning for improvement are essential components.

The findings in this synthesis highlighted how sophisticated and complex systemic program implementation is to achieve, with success and sustainability. It also stressed how adaptive strategies are necessary to respond to changing circumstances and challenges (Fixsen et al., 2005).

The fifth study in this section looked at *Tier 2: Critical Issues in Systems, Practices, and Data* by Bruhn & McDaniel (2021). In this publication, the authors used a comprehensive research review methodology to gather and synthesize research related to SWPBIS, Tier 2 implementation, with three primary domains of focus: (a) systems, (b) practices, and (c) data. In the systems domain, the authors noted three trends which require attention. These included teaming, resources, and professional development activities, to include initial training and ongoing coaching. In the practices domain, the authors noted two primary trends. These two trends included intervention matching and intervention adaptations. In the data domain, the authors discovered three trends which included informed intervention design, progress monitoring practices, and treatment fidelity (Bruhn & McDaniel, 2021).

This article emphasized the importance regarding schools' effectiveness in providing resources, personnel, and procedures when supporting interventions. And therefore, when developing an action plan, the team should explicitly describe and provide resource allocation for the following: "(a) team membership and roles; (b) formal, documented procedures for referring students to Tier 2; (c) a process for matching Tier 2 interventions to student need; and (d) available evidence-based Tier 2 interventions" (Bruhn & McDaniel, 2021). The article continues to emphasize the needs within Tier 2 intervention support to include professional development for initial training, ongoing coaching, as well as booster trainings to ensure practices are refreshed and up to date.

With respect to Tier 2 best practices, the authors found intervention matching and intervention adaptations as key features necessary in implementation with fidelity. Particularly, matching Tier 2 interventions with efficacy as well as provision of varied interventions to match student-specific needs. Additionally, the schools' ability to provide adaptations to interventions horizontally, based on the context within the student-specific settings, and vertically, in response to ongoing data and response to interventions are crucial in optimizing students' outcomes.

When considering and evaluating student-specific data, the authors indicated data-based matching, data-based adaptations, progress monitoring, and treatment fidelity as primary features associated with fidelity of Tier 2 implementation of SWPBIS. The inclusion of teacher reports, ODR data, and, when available, data from rating scales may all be valuable as resources when considering intervention matching; and, when adapting based on student's needs, ongoing evaluation of data collected from self-monitoring, check-in check-out methods, teacher tracking and other progress monitoring methods also provide valuable insight in adapting programming for specific cases. Additionally, the authors also noted, treatment fidelity is paramount as a consideration when school-level teams are evaluating student-specific interventions, and the data collected within the Tier 2 intervention framework.

While Bruhn and McDaniel (2021) underscored the central role of systems, practices, and data in shaping effective Tier 2 implementation, Debnam and colleagues provided an earlier descriptive analysis that revealed how inconsistently these very systems were developed and maintained in elementary schools (Debnam et al., 2012). Their findings illustrate the practical challenges that schools face when attempting to systematize the structures introduced by Bruhn and McDaniel, particularly around professional development, data-based decision making, and resource allocation. In their article, *Secondary and Tertiary Support Systems in Schools*

Implementing School-Wide Positive Behavioral Interventions and Supports: A Preliminary Descriptive Analysis, they provided a focus on the training and support needs schools may

require regarding professional development needs necessary to address the continuum of supports needed to address the social-emotional and behavioral needs among student populations in school settings. Specifically, this article focuses on the Tier 2 and 3 support system needed for those students which are not responsive to Tier 1 SWPBIS support systems.

The authors indicated, the primary aim of this study was to “describe the types and features of Tier 1, 2, and 3 support systems in place at elementary schools already trained in and actively implementing SWPBIS” (Debnam et al., 2012). The secondary aim of this study focused on the Tier 2 and 3 services provided at participating schools with respect to the fidelity of implementation within a SWPBIS framework.

This study included data collected from 45 public elementary schools from six school districts in Maryland. School demographics, perceived implementation of Tier 1, 2, and 3 supports, staff training, and professional development needs were all data sources used in this study. Descriptive statistics were used to summarize the frequency and types of practices across the three tiers (Debnam et al., 2012).

While Tier 1 systems were consistently implemented with fidelity among schools included within this study, substantial differences were present in the availability and structure of Tier 2 and Tier 3 support structures. Only 38% of schools reported having formalized Tier 2 systems and fewer than 20% of schools reported to have established Tier 3 systems, with many schools lacking a data-based decision-making process for identifying students in need of additional supports and significant delays in provision of services when students were identified with a support need. Findings also included a lack of consistent professional development,

coaching, and technical assistance as well as deficits with respect to behavioral assessment strategies, data collection procedures, and individualized interventions for Tiers 2 and 3.

A primary limitation of this study involved the use of self-reported data, which may introduce bias or overestimation regarding implementation fidelity, perceived implementation, and professional development needs. Additionally, the cross-sectional nature of the study limits the ability to determine causal inferences about the relationship between professional development and the effectiveness of Tier 2 and 3 systems. Despite these limitations, this study highlighted critical gaps, specifically regarding implementation and PL, that may be addressed to better ensure implementation fidelity and a comprehensive SWPBIS framework across all three tiers.

Additionally, a 2019 dissertation by Ryan Bergeson, Jane Crawford, and Wayne Dierker, entitled *A Problem-Based Learning Project Investigating Positive Behavioral Intervention and Supports (PBIS) District-Level*, used a survey design model and investigated SWPBIS Tier 2 and Tier 3 supports in school district settings with a specific focus on: (a) successful implementation practices, (b) unsuccessful implementation practices, and (c) sustainability practices. These practices were also evaluated with respect to superintendent strengths based on identified categories of adaptive leadership. The study identified the research questions as follows:

1. What are the impediments leading to a lack of implementation fidelity and treatment integrity with the district-wide positive Tier 2 and Tier 3 implementation for PBIS?
2. How can these impediments to Tier 2 and Tier 3 implementation be addressed and resolved?
3. How does the superintendent's adaptive leadership knowledge effect fidelity of implementation?

4. Are school districts who use Leadership Teams collecting data from schools indicating faithful implementation of Tier 2 and Tier 3 interventions?

For this study, the author reached out (with a survey) to all of the superintendents in the state of Missouri (n=164), 27 responses were received (a 16.4% response rate) with 19 of those fully completed surveys. The procedures/design in this project were fairly simple, a survey was established, a web-based survey tool was used for distribution, and response data were calculated by the web-based tool (Bergeson et al., 2019).

Regarding the author's research questions, the following findings were reported with respect to the corresponding questions:

1. Districts tend to rely on school-level implementation of Tier 2 and Tier 3 SWPBIS with little guidance regarding processes, data collection practices, and data analysis.

Additionally, few resources were provided to schools for Tier 2 and Tier 3 SWPBIS implementation. The authors stated, "each school is left to their own volition when selecting and implementing interventions" (Bergeson et al., 2019).

2. Districts need to establish district-level SWPBIS committees which establish school-level procedures, data collection, data analysis, and interventions. This would require professional development, technical assistance, coaching, and resource allocation at the district and school levels.
3. Two areas of adaptive leadership that presented in this study's data included "regulating distress and maintaining disciplined attention" (Bergeson et al., 2019). These two areas may impact the fidelity of SWPBIS implementation at the district level.

4. A lack of universal screening methods, data collection procedures, and data analysis norms for SWPBIS presented. These deficiencies pose as barriers to successful and sustainable district-wide SWPBIS implementation efforts.

The authors also shared three critical features necessary from school districts to ensure school-level PBIS Implementation is supported and successful:

- The district superintendent's role is vital to the success of PBIS.
- District-level leadership team that supports schools with PBIS are necessary.
- Tier 2 and Tier 3 committees with established systems and regular meetings are crucial.

The limitations associated with the study were clear. This research was conducted in Missouri and utilized data collected from participating superintendents within one specific state. Additionally, this study had a 16.4% response rate for the survey conducted among these participants. Therefore, the generalizability of this study's findings is significantly limited due to these factors.

Although both Debnam et al. (2012) and Bergeson et al. (2019) emphasized barriers to implementation fidelity, Bradshaw and colleagues provided compelling experimental evidence that when SWPBIS is implemented systematically and with fidelity, significant improvements in school climate and student behavior can be achieved their article *Altering School Climate Through School-Wide Positive Behavioral Interventions and Supports: Findings from a Group-Randomized Effectiveness Trial* (C. P. Bradshaw et al., 2009). This study used data from a large-scale, group-randomized effectiveness trial and examined the impact of SWPBIS training on school climate and student behavior over a multi-year implementation period. The authors aimed to evaluate whether SWPBIS could lead to measurable improvements in school climate,

staff perceptions, and student behavior when implemented with fidelity in elementary school settings (C. P. Bradshaw et al., 2009)

The data this study accessed employed a longitudinal, group-randomized controlled trial design involving 37 Maryland elementary schools, with 21 schools randomly assigned to implement SWPBIS and 16 serving as controls. The schools were matched based on demographic characteristics and baseline behavior indicators prior to randomization. Data were collected annually from students and staff using validated instruments, including the School Climate Survey and Office Discipline Referral (ODR) records, over a four-years period of this five-year study.

Authors highlighted key findings within the article, noting schools which were implementing SWPBIS experienced significant improvements in overall school climate, based on the results from the School Climate Survey (which were reported by staff). The most notable improvements included reductions in staff-reported behavior problems and improved perceptions of safety and connectedness. Additionally, students in SWPBIS schools displayed lower rates of ODRs over time when compared to their peers in control group schools. Also notable, these effects became more pronounced with continued implementation, which the authors proposed as a cumulative benefit of sustained SWPBIS practices, specifically among schools with lower initial levels of organizational health.

The authors also emphasized the importance of implementation fidelity, noting that schools demonstrating higher adherence to SWPBIS, based on criteria from the SET, achieved more positive outcomes. Furthermore, the findings supported the role of SWPBIS in relation to improving behavior management and fostering a more supportive and orderly school climate.

Despite the strengths this study maintained, to include both a rigorous experimental design and a longitudinal approach, the authors acknowledged certain limitations. These included potential bias and variability in staff reporting, differences among participating schools' leadership support, and other contextual factors that may have influenced implementation across sites. Despite these limitations, this study contributed compelling evidence supporting SWPBIS as an effective framework for positively influencing school climate and reducing behavioral disruptions when implemented systematically and with fidelity.

Systemic Scale-up

Building upon an understanding of the essential features of MTSS-B, it is critical to examine how these practices are expanded and sustained at scale. While individual schools may demonstrate success in implementing MTSS-B, long-term effectiveness and equity depend on coherent strategies that extend across districts, regions, and states. The literature reviewed in this section focuses on implementation science, organizational reframing, as well as the systems-level conditions, infrastructure, and policy mechanisms necessary to facilitate large-scale implementation of MTSS-B.

Effective change across an organization depends on the practices being introduced as well as the methodology in which they are implemented and understood within complex educational systems. Implementation science has provided a structured framework for bridging the gap between evidence-based interventions and real-world applications (Fixsen et al., 2005). Experts in this area of inquiry have underscored the critical components, such as stages of implementation, core intervention components, key contextual factors, and implementation drivers that determine success regarding achievement of intended outcomes. Rather than viewing implementation as a single event, Fixsen and colleagues presented program implantation as an

iterative process that unfolds across multiple levels within organizational systems, requiring attention to both human and structural factors that support sustainable change.

Approaching systemic change from another perspective, Bolman and Deal's (2021) concept of organizational reframing offered a relevant perspective by proposing multiple interpretive "frames" with respect to organizational scale-up. The key principles introduced by these researchers include approaching organizational restructuring through structural, human resources, political, and symbolic perspectives which can shape understanding and decision-making within organizations. Bolman and Deal's (2021) concept of organizational reframing encouraged the consideration of several principles grounded in implementation science; and, offered a perspective which values the contextual and cultural dynamics often overlooked as influences contributing to the success of program implementation.

Together, implementation science and organizational reframing methodologies equip practitioners through the complex process of transposing theory and evidence into practice. The studies explored in this section highlight how scale-up efforts are influenced by leadership structures, professional development systems, data coordination, and continuous improvement processes. The body of literature discovered while conducting this comprehensive research review underscored how fidelity can be preserved across multiple tiers and settings, how timing of implementation affects outcomes, and how capacity building within schools and districts supports sustainability. As MTSS-B becomes more widely adopted as a framework for educational improvement, understanding the systemic variables that drive its successful scale-up is essential for informing practice and policy at all levels of the education system.

The first article in this section addressed questions of sequencing and time when schools implement higher tiers of support. This study, titled *Optimal Timing for Launching Installation*

of Tiers 2 and 3 Systems of School-Wide Positive Behavioral Interventions and Supports,

conducted a large-scale quantitative analysis which examined the optimal timing for installing Tier 2 and Tier 3 systems within a SWPBIS framework (Kittelman, A., Mercer, S. H., McIntosh, K., & Hoselton, R., 2022). The authors highlighted key milestones in SWPBIS research and established a rationale for exploring a logical sequence for implementation. The importance of implementation fidelity as a key indicator when understanding how timing influences the quality of Tier 2 and Tier 3 systems was a focal point within this study (Kittelman et al., 2022).

The study was guided by four central research questions focused on how implementation fidelity at Tier 1 impacts Tiers 2 and 3, and whether the time intervals between tier implementation phases were associated with differences among fidelity outcomes at higher tiers. Specifically, the authors sought to determine whether greater delays between tier launches correlated with stronger implementation fidelity for Tiers 2 and 3 (Kittelman et al., 2022).

This study included data from 776 schools across 244 districts in 27 U.S. states, with 68% of the schools serving elementary students. Tier 3 data were available for a smaller subset of schools (n = 359). The authors analyzed data extracted from the National Center for Education Statistics (NCES) and the PBIS Assessment database, using a computer-based statistical modeling approach to examine associations among implementation timing and fidelity across tiers (Kittelman et al., 2022).

This study offered key findings that have practical implications for MTSS-B and SWPBIS implementation planning. Schools that waited two to three years after achieving Tier 1 fidelity before launching Tier 2 demonstrated significantly stronger Tier 2 implementation fidelity. Furthermore, schools that delayed Tier 3 implementation by at least one year following the attainment of Tier 2 fidelity were also more likely to report improved Tier 2 implementation

outcomes. These findings suggest that staggered, fidelity-based sequencing of tier implementation may enhance the quality and sustainability of support systems, especially at the more intensive levels of intervention (Kittelman et al., 2022).

This study contributes important empirical evidence, as well as guidance, in structuring multi-tiered implementation timelines that align with fidelity benchmarks, rather than arbitrary deadlines. The findings support a strategic, phased implementation approach in building a robust and sustainable support system.

Several important limitations were acknowledged by the authors. Notably, some schools may have reported Tier 2 or 3 implementation due to district mandates rather than active, authentic implementation. Additionally, the use of data collected by the TFI may not have captured implementation efforts initiated prior to the adoption of this assessment tool. Finally, the authors acknowledged, data collection timelines may have ended before some schools were able to report fidelity scores for advanced tiers.

The next publication in this review examined *Sustaining and Scaling Positive Behavioral Interventions and Supports: Implementation Drivers, Outcomes, and Considerations* (Sugai & Horner, 2020). In this conceptual review, two of the foundational scholars in SWPBIS, George Sugai and Robert H. Horner, synthesized over two decades of empirical implementation knowledge and experience to identify the core features necessary for sustaining and scaling-up SWPBIS. The authors present the concepts within this article through an implementation science lens, emphasizing the “drivers” of effective scale-up, which include: (a) leadership, (b) organizational capacity, (c) training and coaching systems, (d) fidelity measurement, and (e) data-informed decision-making. The authors describe SWPBIS as an evolving framework responsive to local context, political structures, and system-level readiness.

Their discussion spans district, regional, and state implementation efforts, underscoring the need for coherent policy alignment, infrastructure support, and sustained professional development to ensure long-term impact (Sugai & Horner, 2020).

The article highlighted several key considerations that facilitate sustainable SWPBIS scale-up. First, systems that successfully scale-up SWPBIS emphasize adaptive leadership (e.g., leaders who build trust, support continuous learning, and prioritize alignment across departments). Second, the authors emphasized the importance of coaching and technical assistance as ongoing supports, rather than isolated training events. Third, they identified data systems (e.g., fidelity tools like the TFI and outcome tracking (ODR, ISS, OSS, truancy, etc.) as essential elements in guiding adjustments and reinforcing implementation integrity. Finally, the authors advocated for embedding SWPBIS within a broader MTSS framework (e.g., MTSS-B) to augment, as well as be informed from, integration with academic and mental health initiatives. When these conditions are in place, the authors predict, both schools and school systems are more likely to achieve sustained positive outcomes over time (Sugai & Horner, 2020).

As a conceptual review, rather than an empirical study, this article did not present new data or statistical findings. Instead, it drew from the authors' synthesis of existing literature and their extensive experience and involvement SWPBIS across the country. While the key considerations expressed are established, these may lack the specificity systems-level practitioners may be seeking.

Considering how implementation science informs educational reform, the following synthesis titled *Implementation Research: A Synthesis of the Literature* served as a foundational text concerning deployment of SWPBIS using implementation science (Fixsen et al., 2005). This publication offered a comprehensive examination of key considerations when

attempting to successfully implement and sustain evidence-based practices at scale. Drawing from a robust set of sources, this literature synthesis outlined common features associated with successful scale-up efforts across various disciplines, including education, mental health, and human services. The synthesis shifts the focus from development of effective practices to understanding the processes and structures necessary for those practices to be adopted, implemented with fidelity, and sustained over time. A concept particularly relevant when considering the systemic scale-up of MTSS-B, which requires consistent and coordinated implementation across classrooms, schools, districts, and states (Fixsen et al., 2005). The framework presented in this publication were referred to as six core implementation drivers. These implementation drivers were presented within two primary categories, which included: (a) staff competency (through training, coaching, and evaluation), (b) organizational supports and leadership (to include decision-support data systems, facilitative administration, and systems interventions). These drivers were presented as essential for creating school-level environments where complex interventions (as those within an MTSS-B framework) may be implemented with fidelity. The authors emphasized that high-fidelity implementation rarely occurs organically, and it must be actively supported by the organizational infrastructure to ensure capacity building (Fixsen et al., 2005).

A significant contribution within this synthesis was the emphasis on, and defining of, the stages of implementation: (a) exploration, (b) installation, (c) initial implementation, and (d) full implementation. Notably, and perhaps more importantly, the authors cautioned against rushing to scale without recognizing the developmental processes involved with systems change. Their framework suggested assessment for readiness, stakeholder engagement, and resource alignment should precede systemic scale-up to promote sustainable outcomes (Fixsen et al., 2005).

A significant contribution within this synthesis was the emphasis on implementation teams (e.g., dedicated groups responsible for managing and supporting the process across stages and levels). Establishing these teams, the authors stressed, serve as the foundation maintaining fidelity, solving problems, as well as adapting as contextual changes present. In fact, this publication noted, systems-level implementation teams (e.g., district-level, region-level) are often the missing link in sustaining school-wide practices over time; emphasizing successful scale-up is less about the framework itself and more about the systems that support its use.

The next article reviewed delved deeper into the systemic implementation of MTSS at the agency level. In this 2015 article, *Integration of Academic and Behavioral MTSS at the District Level using Implementation Science* examined the systemic integration of academic and behavioral supports within an MTSS framework (Freeman & Newcomer, 2015). Framing their analysis through the lens of implementation science, the authors argued that sustainable MTSS implementation requires a deliberate alignment of systems, practices, and data across both academic and behavioral domains. The authors asserted, among schools continuing to function with parallel RTI and SWPBIS frameworks, a need for intentional integration of these frameworks to address the whole child (e.g., an MTSS framework). The article continued by providing practical guidance for systems leaders to create a coherent framework based on three categories of implementation drivers: (a) competency drivers, (b) organization drivers, and (c) leadership drivers. The authors supported this implementation driver structure through the introduction of the core components within each of the three implementation driver categories. Additionally, the authors shared concepts such as stages of implementation and district-level roles within an MTSS framework (Freeman & Newcomer, 2015).

The authors revealed notable conclusions, highlighting how successful integration of academic and behavioral MTSS at the district level requires more than coexisting frameworks at these levels; unified vision, cross-departmental collaboration, and leadership alignment are paramount for successful implementation. Implementation drivers were introduced as the most critical among factors in sustaining integration efforts. Specifically, the competency drivers of performance assessment, selection, training, and coaching. Also, the organization drivers of system intervention, facilitative administration, and data systems for decision making. And finally, the leadership drivers of technical and adaptive skills. The authors also supplemented by noting the importance of clear communication channels, especially between general education, special education, and student support departments, as means to reduce silos and redundancy. The article also pointed to the need for implementation teams as a structural mechanism to support scale-up across and within schools.

While the article presented a valuable conceptual model and recommendations for systemic MTSS implementation, it was primarily descriptive and did not include formal empirical data or quantitative outcomes. The absence of specific and longitudinal data also limits insight into the long-term sustainability of the concepts introduced and described. However, despite these limitations, the authors offered a strong theoretical foundation for systems pursuing systemic MTSS integration. The emphasis on implementation science provides a useful framework for approaching the complexity of school-level and systems-level transformation efforts.

It is important to also consider the barriers that exist when systems and schools are scaling up their MTSS infrastructures. In the article *Examining Barriers to Sustained Implementation of School-Wide Prevention Practices*, authors conducted a descriptive analysis

study aimed at investigating the barriers that impede the sustained implementation of SWPBIS in K–12 public schools (Turri et al., 2016). This study, framed within existing implementation literature, sought to extend the knowledge base by focusing specifically on factors that interfere with long-term, consistent practice of SWPBIS. The research questions were clearly stated as follows:

- What is the factor structure of the barriers measure, and is it invariant across stages of implementation?
- Are there mean differences in perceptions of barriers across schools at different SWPBIS stages of implementation?
- Controlling for school demographic variables, to what extent do perceptions of barriers relate to fidelity of SWPBIS implementation at each implementation stage? (Turri et al., 2016)

The article provided justification for examining barriers as a critical component of scaling-up and sustaining a SWPBIS framework.

To conduct this investigation, the researchers accessed data from a larger study which administered a structured survey to a broad sample of schools preparing to implement or already implementing SWPBIS. There were 704 participating K-12 public schools from 11 U.S. states in the primary study which took place between fall 2012 and spring 2013. Computer based data analysis methods were used to identify common themes and patterns in perceived barriers to sustainability (Turri et al., 2016).

This analysis revealed four primary and consistently reported barriers to the sustained implementation of SWPBIS: (a) lack of administrator support, (b) lack of staff buy-in, (c) inadequate training, and (d) insufficient resources. Among these barriers, the absence of

sustained administrative leadership was most frequently cited as a critical issue. Staff buy-in (which was often contingent upon the extent of communication, involvement, and shared vision) was another major factor affecting continuity of practice. The findings also underscored the importance of training (e.g., initial training, coaching, and ongoing technical assistance) to build long-term capacity building. Lastly, the lack of financial, material, and time-based resources was reported as a fundamental obstacle to a sustainable SWPBIS infrastructure.

The authors emphasized that these barriers are not independent but interrelated. For example, administrative turnover may affect staff morale and PL opportunities, which in turn erode overall fidelity. The study highlighted the need for systemic supports and deliberate planning to address these overlapping challenges during all stages of implementation.

The authors acknowledged several limitations in their study. First, the sample included only schools that had completed implementation fidelity assessments, which may introduce a selection bias toward schools more engaged in the SWPBIS process. Second, some of the participating schools were still in the early stages of implementation, potentially influencing how barriers were perceived and reported. Additionally, the use of self-report survey data may reflect respondents' subjective perceptions, rather than objective measures of implementation obstacles. Finally, while the study captured widespread patterns, it did not disaggregate responses by school context (e.g., rural vs. urban, elementary vs. secondary), limiting the generalizability of its conclusions.

The final article in this section highlights the role of teacher preparation programs in supporting statewide MTSS scale-up. In *Preparing Teacher Educators for Statewide Scale-Up of Multi-Tiered System of Support (MTSS)*, the authors presented a policy-focused conceptual examination of how teacher preparation programs can be redesigned to support the scale-up of

MTSS (Sailor et al., 2021). This 2021 article presented a conceptual, policy-focused examination of how teacher preparation programs can be redesigned to support the statewide scale-up of an MTSS framework. The authors reasoned, systemic change in K-12 education cannot scale-up without first considering and transforming how future educators are trained. The concepts within this article, rooted in implementation science, proposed a model for building teacher educator capacity within institutions of higher education (IHE) in support of MTSS-aligned teaching and leadership practices (Sailor et al., 2021).

This study, which specifically focused on California public schools, outlined recommendations for restructuring preservice and credentialing requirements to align with MTSS-aligned principles and practices. Central themes in this proposed reform involved the restructuring of teacher education standards to include: (a) inclusive practices, (b) tiered support models, and (c) systems-change competencies; all as additional foundational elements needed in teacher preparation programming (Sailor et al., 2021).

This article proposed an innovation configuration (IC) map for MTSS with several key findings related to scaling-up MTSS in teacher education and professional development (PD). First, embedding MTSS within credentialing standards may foster system-level change, prompting IHEs across California to re-examine and update program content. Second, the initiative demonstrated that IHE faculty plays a crucial role in ensuring pre-service teachers enter the workforce with a systems-thinking orientation and the practical skills necessary for implementing MTSS in diverse school contexts.

Additionally, the authors emphasized the importance of consistency and coherence between policy, teacher preparation, and K–12 current best practices. By aligning credentialing requirements with evidence-based MTSS frameworks, California’s teacher preparation system

may begin to bridge the current disconnections associated with pre-service training programs and the current expectations teachers face when entering educational systems implementing MTSS frameworks.

While the article provided a strong conceptual foundation and detailed case example in the state of California, it did not present empirical data or a formal evaluation of findings. Therefore, this study's conclusions regarding impact are primarily theoretical and policy-based rather than outcome-driven. The authors acknowledged that sustainable change in teacher education is complex and therefore influenced by institutional shifts, faculty capacity, and competing priorities among ICEs.

Another apparent limitation involved the proposed model's specificity within California's policy and institutional structures, which may limit its generalizability to other states with different governance systems regarding MTSS infrastructures. Finally, the article called for ongoing professional development and support for teacher educators but did not fully address issues such as resource limitations, faculty resistance, and school climate, which may pose additional impact when implementing systemic reform (Sailor et al., 2021).

Findings and Conclusions

This section provides a comprehensive synthesis of the literature reviewed throughout this comprehensive research review, organized around the two guiding research questions:

- (RQ1) What key elements does research suggest for effective implementation of an MTSS-B framework?
- (RQ2) What mechanisms does research suggest for evaluating the success of MTSS-B implementation?

By stepping back and taking a nuanced perspective when considering this collective body of research as a whole, this section aims to synthesize findings across studies, identify convergent and divergent trends, and objectively examine the overarching themes that emerge from the literature. Rather than focusing on individual studies in isolation, the aim within this section is to analyze the cumulative knowledge base to uncover patterns, commonalities, and implications relevant to the implementation and outcomes of MTSS-B frameworks. This synthesis not only highlights the depth and breadth of current scholarship but also is intended to inform the future direction for practice, policy, and research.

Revealed Themes

This comprehensive research review revealed several recurring themes that reflect the current state of knowledge regarding the implementation and outcomes of SWPBIS and MTSS-B. These themes emerged across a range of empirical studies and theoretical frameworks, offering insight into both the strengths and limitations of existing implementation efforts. The reviewed literature collectively underscores the evolution and integration of frameworks, the critical importance of implementation fidelity, as well as conclusive impacts regarding student disciplinary outcomes. The findings, regarding academic outcomes, remain largely inconclusive, particularly when only Tier 1 supports are in place. Additional themes highlight systemic challenges in the implementation of advanced tiered supports, the identification of essential components for successful and sustainable implementation, and consistent methodological limitations across the research base. The following subsections explore these themes in detail, synthesizing the evidence base in an effort to inform future practice, research, and policy development.

Evolution and Integration of Frameworks. This comprehensive research review highlights the historical development of MTSS and MTSS-B, explaining the development from the convergence of Response to Intervention (RTI) for academics as well as SWPBIS, with its focus on behavior. The apparent emphasis regarding the initial and distinct initiatives were gradually integrated into a comprehensive MTSS framework designed to support the "whole child". The terms SWPBIS and MTSS-B are presented as conceptually synonymous, reflecting this evolution.

Fidelity of Implementation. One significant theme, the crucial role of implementation fidelity in achieving positive outcomes, was presented among multiple sources in this comprehensive research review. Multiple studies examined the relationship between how well SWPBIS was implemented (measured by tools like the TFI and BoQ) and student outcomes. The findings in this comprehensive research review consistently suggested that higher fidelity of implementation, particularly when Tier 1 of the framework was fully implemented, was correlated with improved behavioral outcomes, with academic outcomes showing less consistent correlation (when Tier 1 structures were the only parts of the framework implemented).

Impact on Disciplinary Outcomes. A prominent finding across several studies in this comprehensive research review was the positive correlation between SWPBIS implementation and reduced disciplinary incidents, such as out-of-school suspensions (OSS), in-school suspensions (ISS), and office discipline referrals (ODR). This suggests that SWPBIS is an effective strategy for improving school climate as well as overall student behavior.

Inconclusive Academic Outcomes. While behavioral improvements are consistently noted, the literature review indicated that the impact of SWPBIS (and MTSS-B) on academic achievement is often inconclusive or not statistically significant. This was especially true among

research focused solely on Tier 1 implementation. However, further studies suggested implementation of advanced tiers of support did, in fact, correlate with a positive impact on academic achievement. The literature did suggest a need for further research to verify these claims, as direct benefits of behavioral interventions may reside more in behavioral concerns than in academic performance.

Challenges and Gaps in Higher Tier Implementation. One critical theme which emerged in this comprehensive research review was the absence of robust implementation of Tier 2 and Tier 3 behavioral supports. Several studies point to significant shortcomings in formalized systems, resources, professional development, and data-based decision-making for students requiring more intensive interventions. This suggests a disconnect between the conceptual framework of tiered support and its practical application beyond Tier 1 implementation.

Essential Components for Successful Implementation. This comprehensive research review has synthesized key features and principles necessary for successful and sustained MTSS-B implementation. These studies collectively included key features such as: (a) leadership teams, (b) stable funding, (c) visibility, (d) political support, (e) training, (f) coaching, and (g) continuous evaluation. The importance of systemic supports and a coordinated approach were also emphasized.

Methodological Considerations and Limitations. Several studies within this comprehensive research review outlined limitations, which often include sample size issues, generalizability concerns (e.g., studies conducted in only one state or specific school types), reliance on self-reported data, and the correlational nature of findings rather than causal relationships. This highlights the ongoing need for more rigorous and broader research.

Discussion

A significant research base provides strong evidence supporting the effectiveness of MTSS-B as a framework for improving behavioral outcomes, particularly when implemented with fidelity. While challenges remain in linking implementation to academic success, consistent themes related to leadership, tiered support, and fidelity provide direction for agencies seeking to scale-up MTSS-B frameworks. This discussion intends to interpret and contextualize the findings from the comprehensive research review to answer two guiding research questions:

- (RQ1) What key elements does research suggest for effective implementation of an MTSS-B framework?
- (RQ2) What mechanisms does research suggest for evaluating the success of MTSS-B implementation?

With a focus on the themes revealed in the comprehensive research review, this discussion aims to highlight the characteristics necessary for an agency-wide scale-up of an MTSS-B framework, as well as indicators which may be utilized to assess its impact. Rather than providing a prescriptive checklist, this section presents the concepts needed in understanding what makes an MTSS-B framework function effectively at a systemic level, and how systems may assess if their efforts are working.

What Constitutes Effective MTSS-B Implementation?

The literature consistently suggests that effective MTSS-B implementation is built upon a strong foundation of leadership, planning, and systemic supports. A well-functioning MTSS-B framework is not merely a collection of interventions, but rather a coherent, tiered system aligned with an agency's vision and resources.

The evolution and integration of MTSS-B, from RTI and SWPBIS, emphasize that effective systems prioritize support for the whole child, integrating academic and behavioral needs into a unified structure. These frameworks thrive when implementation is intentional and guided by research-informed practices. Key elements identified in the literature include:

- **Dedicated leadership teams** at both the agency and school levels with decision-making authority and implementation expertise.
- **Stable funding** and agency support to ensure long-term sustainability.
- **Professional development, coaching, and technical assistance** to build practitioner capacity.
- **Clear structures for data-based decision-making** and ongoing evaluation.
- **Fidelity of implementation**, especially at Tier 1, as a foundational requirement for the success of advanced tiers of support.

In this way, an effective MTSS-B framework is both operational and adaptive, capable of improving based on evidence and experience. The “Essential Components for Successful Implementation” theme provides a direct answer to RQ1, illustrating the features necessary to support implementation integrity and scalability.

How Does a System Know if Their MTSS-B is Working?

Assessing the success of MTSS-B implementation requires attention to both process fidelity and student outcomes. A strong theme among the literature prioritizes the use of implementation fidelity tools (Tiered Fidelity Inventory (TFI), Benchmarks of Quality (BoQ), etc.) to progress monitor program implementation. These tools help both agency-level facilitators and school-level teams understand whether core features are being applied consistently and with fidelity.

Regarding outcomes, the clearest indicators of success are found from behavioral data. The literature reveals consistent reductions in out-of-school suspensions, in-school suspensions, and office discipline referrals (ODRs) when MTSS-B is implemented with fidelity. These findings suggest that, when implemented with fidelity, MTSS-B frameworks are effective in reducing problematic student behavior.

Taken together, the themes of implementation fidelity, behavioral impact, and evaluation mechanisms directly address RQ2 by describing how schools and agencies can determine whether their MTSS-B frameworks are functioning as intended. The use of regular, structured evaluation tools, coupled with behavioral data, provides progress monitoring of implementation and data-informed focus for program improvement.

Connecting the Themes to the Research Questions

To further elaborate on the relationships between identified themes within the literature and how this capstone's research questions contribute to a deeper understanding of the effective scale-up of agency-wide MTSS-B frameworks, the following points underscore key connections:

- The **evolution and integration of frameworks** show how foundational alignment and conceptual understanding are essential to MTSS-B implementation effectiveness (RQ1).
- **Fidelity of implementation** and its correlation with positive outcomes underscores the importance of consistency and integrity in applying practices (RQ1 and RQ2).
- The **impact on disciplinary outcomes** offers a tangible metric for evaluating success (RQ2).
- The **challenges in higher-tier implementation** reveal systemic obstacles that must be addressed to achieve full implementation (RQ1).

- The **essential components for successful implementation** provide a clear, research-informed guide to the conditions under which MTSS-B is implemented with fidelity (RQ1).
- Finally, the **methodological limitations** found across studies should remind agencies and practitioners to interpret their own MTSS-B framework with nuance, considering the context of their resources and schools, to pursue attainable, generalizable, and successful scale-up (RQ2).

Section 3: A Plan

The idea of developing a comprehensive plan to facilitate the shift to an MTSS-B framework across a school system was on my mind long before starting this capstone project. As a practitioner delegated this responsibility, I have been engaged in this work with schools for several years. Drawing from my acquired experiences, observations, stakeholder insights, revelations, and inspirations, I approached this capstone project with a practitioner's perspective which offered unique, practice-informed insights. However, as I embarked on my comprehensive literature review, it became essential to acknowledge and critically examine my preconceptions. Throughout my research, many of my practices were affirmed, while some were refined. Pleasantly, the process progressively led to the development of a structured, system-wide approach to MTSS-B implementation in the form of an implementation plan.

While organizing evidence-based practices and making connections among the key findings, the need to approach the scale-up of MTSS-B in phases became evident. Additionally, the importance of focused attention to individual schools, while progressing through the phases, became clear. This work culminated in the development of the *MTSS-B Phased Implementation Plan*, presented later in this chapter. While this plan was designed to guide MTSS-B focused teams within educational agencies operating at the state, regional, or district level, the primary utilizers of the MTSS-B Phased Implementation Plan are expected to be agency-level practitioners tasked with facilitating the scale-up of MTSS-B. Those in this role will be referred to as the *MTSS-B Facilitator* throughout this chapter.

The Agency MTSS-B Leadership Team

Effective agency-wide scale-up of MTSS-B requires comprehensive, strategic agency-level support. Central to the success of any systemwide MTSS-B initiative are the MTSS-B

Facilitators. These individuals play a critical role when translating policy into practice by delivering PL, coaching school-level teams, guiding data-based decision-making, providing related technical assistance, and helping schools build internal capacity for sustained implementation. However, an MTSS-B Facilitator's success is greatly influenced by the structures, expectations, and resources provided by the supporting educational agency.

A central theme identified in the research was the importance of establishing agency-level leadership teams dedicated to the successful implementation of MTSS-B among their schools. These teams will be referred to as *MTSS-B Leadership Teams* throughout this chapter. The MTSS-B Leadership Team includes both agency leaders (those responsible for funding, resource allocation, and authorization) and MTSS-B Facilitators (the practitioners working directly with schools to facilitate implementation).

There are several key components that MTSS-B Leadership Teams may use to guide the success of MTSS-B Facilitators and their work. These key components are drawn from insights collected from literature, practical experience, and stakeholder perspectives. They are intended to guide agencies in developing an infrastructure that empowers MTSS-B Facilitators to perform their work effectively and sustainably. Figure 4, which includes the *Key Agency Components to Support the Success of MTSS-B Facilitators*, serves as both a planning and reflection tool for MTSS-B Leadership Teams.

Figure 4:

Key Agency Components to Support the Success of MTSS-B Facilitators

1. Clear Role Definition and Purpose
 - Define the scope and responsibilities of implementation facilitators.
 - Establish how facilitators will work with school teams and agency leaders.
2. Leadership and Administrative Support
 - Assign a dedicated agency leadership team to support the facilitators.
 - Ensure facilitators are part of an MTSS-B Leadership Team.
 - Protect and prioritize the facilitator role in organizational planning.
3. Ongoing Professional Learning
 - Provide ongoing training in MTSS-B, coaching, and systems change.
 - Create networking opportunities like communities of practice.
4. Structured Tools and Resources
 - Supply consistent, aligned materials such as guides, templates, and coaching tools.
 - Ensure tools support fidelity to MTSS-B frameworks and are user-friendly.
5. Access to Data and Decision-Making
 - Ensure access to school-level academic, behavior, and fidelity data.
 - Include facilitators in data-driven decision-making processes.
6. Protected Time and Manageable Caseloads
 - Limit facilitator caseloads to a manageable number of schools.
 - Allocate dedicated time for school visits, coaching, and follow-up.
7. Feedback and Evaluation Structures
 - Conduct regular reviews of facilitator impact using data and feedback.
 - Offer supervision, mentorship, and professional growth opportunities.
8. Systemwide Alignment
 - Align facilitator work with the agency's MTSS-B vision and goals.
 - Facilitate open communication between facilitators and leaders.

Figure created/adapted from Fixen et al. 2005; Sugai & Horner, 2006; & Fixsen & Blasé, 2008 for this capstone by Michael Lybarger 2025

The MTSS-B Phased Implementation Plan introduced below is a structured, research-aligned framework for guiding individual schools through the complex process of implementation of MTSS-B. Designed for use by the agency's MTSS-B Leadership Teams (which include MTSS-B Facilitators), this framework provides a scaffolded model for progressing schools through the key phases of Exploration/Adoption, Installation/Expansion,

Elaboration/Calibration, and Maintenance/Sustainability (see Figure 5). When paired with effective agency support, this framework provides a blueprint for a cohesive, systemwide approach to improve behavioral outcomes across schools.

Figure 5:

MTSS-B Implementation Phases

MTSS-B Implementation Phases			
Exploration/Adoption	Installation/Expansion	Elaboration/Calibration	Maintenance/Sustainability
In the <i>Exploration & Adoption Phase</i> , the school is receiving professional learning aligned with positive behavior interventions and supports, forming a focused leadership team, as well as making decisions about universal practices, considering program adoption, and developing processes for successful implementation of behavioral supports. The school may be establishing a leadership team to support the installation of a comprehensive MTSS-B program.	In the <i>Installation & Expansion Phase</i> , the school has established a leadership team that is focused on creating an infrastructure for successful MTSS-B implementation. The school has developed an agreed upon school-wide behavior matrix. The team is focused on collecting baseline data, conducting an audit of current systems in place, and working with the agency MTSS-B Facilitator in action planning. The school is also working toward providing targeted and intensive interventions for identified students.	In the <i>Elaboration & Calibration Phase</i> , the school is implementing practices, finding what works (and what doesn't), making changes or modifications to meet the school's unique needs, and creating a sustainable plan for ongoing practices the school may use within its framework. The school is engaged in fidelity of implementation progress monitoring, developing an inventory of interventions, and exploring systems for universal screening.	In the <i>Maintenance & Sustainability Phase</i> , the school has fully adopted an MTSS-B framework as a standard of practice, benefits from regular and systematic review of data, and regularly assesses for program implementation fidelity. At this stage, the school is keeping up with evidence-based practices (EBPs) and adjusting practices to align with changes as needed. The school is also building capacity for sustainability through onboarding practices.

Figure created/adapted from Fixen et al., 2005 for this capstone by Michael Lybarger 2025

While the general framework and concepts involved in the presented MTSS-B Phased Implementation Plan may be generalized to a variety of school levels, for the purposes of this capstone emphasis has been placed on elementary school settings. This emphasis was selected primarily due to: (a) the prevalence of the focus on elementary schools within the literature and (b) trends among educational agencies to begin systemic scale-up of MTSS frameworks among elementary schools, with plans to matriculate progressively to middle school and then high school settings.

The MTSS-B Phased Implementation Plan

Systemwide implementation of MTSS-B requires intentional planning, coordination, and a sustainable framework to achieve meaningful outcomes. To guide this process, the MTSS-B Phased Implementation Plan offers a structured, sequenced approach for MTSS-B Facilitators to approach systemic scaling. Rather than attempting to introduce all elements of MTSS-B simultaneously, the framework organizes implementation into clearly defined research-informed phases, each with specific goals, activities, and readiness indicators.

The MTSS-B implementation phases refer to distinct stages in a school's implementation journey. Each phase is designed to build upon the previous one, ensuring that essential features, practices, and supports are established prior to moving forward.

Within each of the implementation phases, benchmarks are identified to serve as measurable indicators of progress (see Table 1). These benchmarks articulate the key tasks, criteria, or evidence that demonstrate readiness to proceed to the next phase. Although these benchmarks are listed in a logical sequence, they are not always intended to be completed in strict chronological order. Some benchmarks may be achieved concurrently or revisited as needed, depending on the school's unique context and readiness. By meeting benchmark criteria, the MTSS-B Facilitator can confirm that the necessary capacity, fidelity, and outcomes have been achieved at a specific stage of implementation. Once achieved, a transition to the next phase may occur.

Moving from one phase to the next is often referred to as a phase change. To be more specific, a phase change occurs when the collected data, observations, and benchmarks indicate that the implementation team has achieved the necessary conditions to advance. This intentional

decision-making process helps to prevent premature progression, ensuring that each subsequent phase is built on a solid foundation of established systems and successful practice.

Table 1:

Phases, Benchmarks, and Indicators of Phase Changes

Phase	Primary Focus	Example Benchmarks	Indicators of Phase Change
Phase 1: Exploration & Adoption	Establish foundational understanding and secure commitment.	Leadership team established; shared vision and MTSS-B purpose statement adopted; initial staff training completed; baseline data collected.	All benchmarks met with supporting documentation; leadership team demonstrates readiness through action plans and resource allocation.
Phase 2: Installation & Expansion	Roll out core Tier 1 behavioral supports and data systems.	Tier 1 behavior expectations defined and taught; data tracking system operational; implementation fidelity at $\geq 80\%$ on the TFI for ≥ 1 year.	Fidelity and outcome data indicate Tier 1 systems are consistently applied schoolwide; teams can use data to guide decisions.
Phase 3: Elaboration & Calibration (Tier 2/3 Supports)	Introduce targeted and intensive supports for students with additional needs.	Tier 2 interventions identified and documented; referral and progress monitoring procedures in place; Tier 3 individualized supports developed for high-need students; staff trained in Tier 2/3 processes.	Data shows successful implementation of Tier 2 supports with evidence of positive impact; readiness check confirms capacity for ongoing Tier 3 development.
Phase 4: Maintenance & Sustainability	Maintain fidelity across all tiers and embed MTSS-B into district/school culture.	Fidelity maintained at $\geq 80\%$ across all tiers; regular outcome data reporting; continuous professional development plan in place; integration with other district initiatives.	Annual review confirms sustained outcomes, high fidelity, and systemic capacity to maintain MTSS-B with limited external support necessary.

Figure created/adapted from Fixen et al., 2005 for this capstone by Michael Lybarger 2025

By sequencing the MTSS-B Phased Implementation Plan in this way, agencies, MTSS-B Facilitators, and school teams are better positioned to facilitate change, effectively allocate resources, and sustain adopted practices over time. The MTSS-B Phased Implementation Plan also presents a model for shared understanding among stakeholders, providing clarity throughout the process.

The MTSS-B Phased Implementation Plan identifies benchmarks that guide movement from one phase to the next. Therefore, it is essential to explore each phase in greater depth; specifically, so MTSS-B Facilitators can successfully guide each school through the implementation process. While detailed descriptions of the MTSS-B Phased Implementation Plan phases and benchmarks are provided in the following sections, *The MTSS-B Facilitator's Guide* provides MTSS-B Facilitators with a detailed and practical blueprint for delivering the PL, coaching, and technical assistance to individual schools throughout the phased implementation process.

Phase 1: Exploration & Adoption of Universal Practices

The Exploration and Adoption phase focuses on developing a shared understanding of universal behavior interventions and supports among school staff. This phase aims to provide the school staff with common language regarding universal behavior supports in “8 Steps to Universal Behavior Support”, a PL session anchored in research-based practices for classroom settings (Lane et al., 2024). Additionally in this stage, the MTSS-B Facilitator will focus on the formation of a school-level MTSS-B Leadership Team and moving toward schoolwide behavioral expectations in the form of a drafted behavior matrix.

Benchmark 1: Initial PL (8 Steps to Universal Behavior Support). For Benchmark 1, the MTSS-B Facilitator’s role is to provide the school staff with the *8 Steps to Universal Behavior Support* PL, which may be found in The MTSS-B Facilitator’s Guide. However, the MTSS-B Facilitator’s role does not end with the delivery of this PL. It is also important to provide ongoing technical assistance, coaching, and modeling for the school staff to: (a) continue building school-level capacity in implementation of universal behavior supports and (b) establish a foundation within the school for teacher-to-teacher support.

Benchmark 2: MTSS-B Universal Leadership Team Formation. For this benchmark, the MTSS-B Facilitator’s role is to provide the school with coaching and technical assistance to organize a school-level team. This team should have identified roles, be representative of stakeholders, meet regularly with documentation, and be actively working toward common goals. The MTSS-B Facilitator may reference the TFI’s Tier 1 features 1.1 and 1.2 rubric (see Figure 6) as a tool for determining if the school is meeting the expectations for this benchmark (Algozzine, B., Barrett, S., George, L., Horner, H., Lewis, R., Putnam, T., Swain-Bradway, & McIntosh, J., 2019). Some school-level MTSS-B Leadership Teams may be interested in exploring all of the TFI’s Tier 1 features, which the MTSS-B Facilitator may elect to share with the team.

Figure 6:

Excerpt from TFI: Tier 1 Universal SWPBIS Features

Feature	Possible Data Sources	Scoring Criteria
Subscale: Teams		
<p>1.1 Team Composition: Tier 1 team includes a Tier 1 systems coordinator, a school administrator, a family member, and individuals able to provide (a) applied behavioral expertise, (b) coaching expertise, (c) knowledge of student academic and behavior patterns, (d) knowledge about the operations of the school across grade levels and programs, and for high schools, (e) student representation.</p>	<ul style="list-style-type: none"> • School organizational chart • Tier 1 team meeting minutes 	<p>0 = Tier 1 team does not exist or does not include coordinator, school administrator, or individuals with applied behavioral expertise</p> <p>1 = Tier 1 team exists, but does not include all identified roles or attendance of these members is below 80%</p> <p>2 = Tier 1 team exists with coordinator, administrator, and all identified roles represented, AND attendance of all roles is at or above 80%</p>
<p>1.2 Team Operating Procedures: Tier 1 team meets at least monthly and has (a) regular meeting format/agenda, (b) minutes, (c) defined meeting roles, and (d) a current action plan.</p>	<ul style="list-style-type: none"> • Tier 1 team meeting agendas and minutes • Tier 1 meeting roles descriptions • Tier 1 action plan 	<p>0 = Tier 1 team does not use regular meeting format/agenda, minutes, defined roles, or a current action plan</p> <p>1= Tier 1 team has at least 2 but not all 4 features</p> <p>2 = Tier 1 team meets at least monthly and uses regular meeting format/agenda, minutes, defined roles, AND has a current action plan</p>

Scoring Criteria: 0=Not implemented; 1=Partially implemented; 2=Fully implemented
(Algozzine et al., 2019)

Benchmark 3: Development of Matrix PL. For this benchmark, the school-level MTSS-B Leadership Team and the MTSS-B Facilitator have come to a consensus regarding the school’s readiness to develop school-wide behavioral expectations for common areas throughout the school (e.g., Hallways, Cafeteria, Restrooms, Playground, Arrival/Dismissal). Once the school’s MTSS-B Leadership Team has determined the common areas of focus, the staff can meet, so the MTSS-B Facilitator (or the school’s MTSS-B Leadership Team) may lead the

school through the PL session titled, “Starting Schoolwide Behavior Expectations”, which may be found in The MTSS-B Facilitator’s Guide.

While delivering this PL, it is important to emphasize that the schoolwide behavior matrix, drafted from the PL Breakout Group Activity results, will be a draft of a living document. The matrix will require stakeholder input, editing, and multiple iterations before the school will be ready to formally launch a matrix that has reached consensus.

Transitioning to Phase 2. If the school has an established an MTSS-B Leadership Team, meeting Benchmark 2, and the MTSS-B Facilitator has delivered the other benchmark items (Benchmark 1 and Benchmark 3), it is now time to meet with the school-level MTSS-B Leadership Team and begin discussing if the school is ready to transition to Phase 2 of MTSS-B Implementation. As the MTSS-B Facilitator, there are a few items to help the school-level team consider:

1. Regarding Benchmark 3: Has the team reached a consensus among staff and stakeholders regarding the schoolwide behavior matrix? The team should recognize, not every staff member will agree with the schoolwide behavior matrix; however, prior to making a transition to phase 2 they should have a minimum of 80% buy in.
2. Regarding Benchmark 1: Has the school, in general, adopted the best practices presented in the “8 Steps to Universal Behavior Support” PL? If appropriate, the school may use the tool provided in Figure 7 to self-assess readiness. Again, not every staff member will be implementing these strategies with fidelity; however, prior to making a transition to phase 2 they should have a minimum of 80% buy in among these practices.

Figure 7:

8 Steps for Universal Behavior Support: Fidelity of Implementation Tool

8 Steps for Universal Behavior Support: Fidelity of Implementation Tool			
Look for . . .	Evidence	Evidence?	
		Yes	No
1. Classroom Expectations are posted within the classroom. <ul style="list-style-type: none"> • <i>Poster of classroom expectations posted in line of sight.</i> 			
2. Classroom Expectations are explicitly taught to students. <ul style="list-style-type: none"> • <i>Lessons are built into a daily schedule.</i> 			
3. Evidence of pre-teaching and re-teaching expectations with class and/or targeted groups. <ul style="list-style-type: none"> • <i>Observed pre-teaching of expectations prior to transition.</i> • <i>Observed re-teaching after corrective feedback or transition.</i> 			
4. Expectations are being reinforced through specific positive feedback (at least a 4:1 ratio to corrective feedback). <ul style="list-style-type: none"> • <i>Count SPF to CF during 20-minute environment observation and record ratio.</i> 	SPF ____ : CF ____		
5. Targeted interventions (such as a behavior chart) are in place for student(s) displaying behaviors of concern. <ul style="list-style-type: none"> • <i>Teacher meeting with student(s) to review performance and collect data on daily expectations chart.</i> 			
6. Data collection and progress monitoring practices are in place for student behavioral data. <ul style="list-style-type: none"> • <i>Teacher has data management system to store behavior charts and/or graphing system.</i> 			
7. The teacher has shared the data with the parent, the SST, or other school-based problems solving team. <ul style="list-style-type: none"> • <i>Notes from teacher to parent, notes from SST, notes from problem-solving team, etc.</i> 			
8. Processes are in place for classroom teachers to elevate progress monitoring data to a problem-solving team. <ul style="list-style-type: none"> • <i>Notes from team that indicate that data was analyzed and that a team determined if the student is making adequate progress, and the team developed next steps.</i> 			

Figure created for this capstone by Michael Lybarger 2025

Phase 2: Installation & Expansion

The Installation and Expansion phase focuses on the initial adoption and deployment of a schoolwide behavior expectations matrix, further capacity-building among the school-level MTSS-B Leadership Team, developing more robust behavioral interventions, as well as development of data systems to inform decision-making. A primary school-level aim during this phase resides in sustained fidelity of implementation among the TFI Tier 1 features for a minimum of one year while achieving the included benchmarks (Algozzine et al., 2019).

Benchmark 1: Adoption and Launch of MTSS-B. This is a pivotal benchmark. Here, the MTSS-B Facilitator works closely with the school to ensure there is clear agreement among staff and other key stakeholders regarding the schoolwide behavioral expectations matrix. In Phase 1, Benchmark 3, the school drafted this matrix; now, the facilitator helps the school’s MTSS-B Leadership Team refine it using the school’s feedback-informed communication model with staff and other stakeholders to ensure all voices are heard.

During this period, many school staff have been actively using the draft matrix in daily practice. This “test and learn” approach allows the team to identify what is working well, where adjustments may be needed, and how to make the expectations more effective and relevant for the school community.

Once the matrix has been finalized and there is broad agreement, the school should mark this milestone with a formal “Launch of MTSS-B” event. This launch can help build excitement, strengthen buy-in, and clearly signal to students, staff, and families that MTSS-B is now fully in place at the school. The MTSS-B Facilitator may use Table 2 to reference actions needed to support schools in the “Launch of MTSS-B” at the school level.

Table 2:

The Launch of MTSS-B

MTSS-B Facilitator Action	Purpose
Review the school’s draft behavioral expectations matrix (from Phase 1)	Ensure the starting point is accurate and aligned with MTSS-B principles
Support the school-level MTSS-B Leadership Team in gathering and incorporating staff and stakeholder feedback	Promote ownership and consensus
Guide the refinement process to ensure clarity, cultural responsiveness, and alignment	Strengthen relevance and inclusivity
Encourage real-world use of the draft matrix	Identify strengths and areas for improvement
Assist the school in planning and hosting the official MTSS-B Launch event	Celebrate progress and boost engagement among all stakeholders
<i>Figure created for this capstone by Michael Lybarger 2025</i>	

Benchmark 2: Initial TFI (Tier 1). For this benchmark, the MTSS-B Facilitator’s role is to provide the school-level MTSS-B Leadership Team with a clear understanding of the adopted fidelity of implementation tool for Tier 1 MTSS-B implementation. In this MTSS-B Phased Implementation Plan, the Tiered Fidelity Inventory (TFI) has been selected as the default fidelity of implementation tool, as this is a free resource to use for this purpose (Center on PBIS, 2025). At this point in a school’s implementation process, it is important for the school-level MTSS-B Leadership Team to become familiar with the “Tier 1: Universal SWPBIS Features” rubric, directly associated with the aims associated with Tier 1 MTSS-B fidelity of implementation.

The MTSS-B Facilitator needs to work with the school-level MTSS-B Leadership Team to conduct: (a) an initial score for Tier 1 implementation fidelity and (b) a plan for regular

evaluations of Tier 1 implementation fidelity using the adopted tool. Moving forward, the school-level MTSS-B Leadership Team, along with the support of the MTSS-B Facilitator, should focus on $\geq 80\%$ implementation fidelity with respect to the TFI Tier 1 features. An established evidence-base supports a firm foundation in Tier 1 prior to advancing to advanced tiers (e.g., moving to Phase 3 in this MTSS-B Phased Implementation Plan) (Center on PBIS, 2025; Kittelman et al., 2022).

Benchmark 3: Sustained MTSS-B Intervention Leadership Team. A critical responsibility of the MTSS-B Facilitator is to ensure the establishment and long-term viability of a school-level MTSS-B Leadership Team at each supported site. The MTSS-B Facilitator should serve in an advisory capacity, guiding the team’s development and operations with a deliberate focus on sustainability. When providing this support, the MTSS-B Facilitator should reference Figure 6, shifting the Leadership Team’s attention toward sustaining these essential features, rather than the immediate fulfillment of these features.

Sustainability challenges often arise when a team’s functioning is overly dependent on a small number of “key players” who assume a disproportionate share of the team’s workload. In such cases, the departure of these individuals can result in a significant loss of momentum and, in some instances, a collapse of the implementation efforts. A well-structured MTSS-B Leadership Team, therefore, must distribute responsibilities equitably, institutionalize core processes, have well-defined roles, and cultivate shared expertise to ensure continuity despite changes in school personnel.

Benchmark 4: Student Support Services Staff PL (Moving Toward Advanced Interventions). The purpose of this benchmark is to prepare the school’s student support services staff to expand their capacity for delivering advanced interventions, a foundation which

will be further developed in Phase 3. The MTSS-B Facilitator’s role is to deliver the *Moving Toward Advanced Interventions* PL, which is outlined in The MTSS-B Facilitator’s Guide. This benchmark serves as a pivotal transition for both the MTSS-B Facilitator and the school team. This benchmark introduces concepts, skills, and structures necessary for providing targeted (Tier 2) and intensive (Tier 3) interventions.

The primary focus in this benchmark is developing the school-level team’s understanding of the link between data-based decision-making processes and thoughtful intervention matching for students. This step is essential for bridging the gap between broad, schoolwide supports and individualized interventions that address specific student needs.

In this PL, the student support services staff are introduced to a range of evidence-based practices and sample curricula aligned with MTSS-B principles. Facilitators should emphasize that these resources are illustrative rather than prescriptive (e.g., curricula and practices may need to be updated, adapted, or aligned with the agency’s existing resources and priorities). Depending on the school or district’s capacity, some examples included in the PL may not be directly applicable, while others may be expanded upon or replaced with more current resources. The key outcome of this benchmark is for the student support services staff to gain awareness of the types of interventions that can be provided within their context and to develop readiness to apply data-driven decision-making in selecting and implementing those interventions.

Transitioning to Phase 3. A school is ready to transition from Phase 2 (Installation and Expansion) to Phase 3 (Elaboration and Calibration) once several critical conditions have been met. First, the school must demonstrate sustained fidelity of Tier 1 implementation (typically evidenced by achieving at least 80% fidelity on the Tiered Fidelity Inventory (TFI) for a minimum of one year) (Center on PBIS, 2025; Kittelman et al., 2022). Second, the school-level

MTSS-B Leadership Team should be fully established, with distributed responsibilities, clear roles, and processes in place to ensure continuity even when key staff members change. Third, the student support services staff must have participated in the *Moving Toward Advanced Interventions* PL and demonstrate initial readiness to incorporate data-based decision-making and intervention matching.

Meeting these conditions signals that the school has a stable Tier 1 foundation and sufficient organizational capacity to expand into more advanced tiers of support. Transitioning to Phase 3 allows schools to build upon this foundation by refining implementation through ongoing action planning, strengthening intervention practices, and calibrating systems to ensure consistency, effectiveness, and sustainability across all tiers of MTSS-B.

Phase 3: Elaboration & Calibration

The Elaboration and Calibration phase is a pivotal stage in the MTSS-B Phased Implementation Plan. While Phase 2 emphasized installation and expansion of universal (Tier 1) practices, Phase 3 shifts toward refining those universal systems while systematically introducing advanced tiers of support. This phase is marked by both consolidation and extension: schools strengthen the fidelity of existing Tier 1 features while working on the scale-up of Tier 2 and Tier 3 systems. The overarching aim is to move from broad implementation of universal supports to ensuring behavioral supports may be responsive to diverse student needs and grounded in sustainable, data-driven decision-making.

During this phase, the MTSS-B Facilitator plays a central role in helping school-level MTSS-B Leadership Teams balance two critical tasks: (a) sustaining high-fidelity Tier 1 implementation and (b) strategically sequencing the introduction of advanced tiers. At the same time, the Facilitator must guide schools in responding when students may require more intensive

supports, ensuring their immediate needs are addressed through existing or interim structures, all while balancing and building school-level readiness for comprehensive Tier 2 and Tier 3 systems.

Benchmark 1: TFI (Tier 1) = 80%, then full TFI. A significant foundation of evidence suggests the importance of high-fidelity Tier 1 implementation as a foundational condition for the effective launch of advanced (Tier 2 and Tier 3) supports. Schools which demonstrate strong Tier 1 fidelity throughout the year preceding the introduction of advanced tiers are significantly more likely to achieve successful implementation with fidelity for both Tier 2 and Tier 3 systems during their respective first years (Kittelman et al., 2022). This reinforces how a robust structure of universal behavioral supports provides the systemic conditions required for successful targeted and intensive interventions.

In addition to fidelity, the timing for the introduction of advanced tiers also plays a critical role in implementation success. Research has revealed that staggering the launch of Tier 2 supports promotes stronger initial fidelity of implementation. Similarly, introducing Tier 3 systems after an intentional delay following Tier 2, rather than implementing both simultaneously, supports better MTSS-B outcomes. Therefore, advancing intentionally and sequentially in the school-level deployment of the tiers, with sufficient capacity-building throughout the phases of implementation, should promote long-term fidelity and sustainability (Kittelman et al., 2022).

Important to this benchmark, the MTSS-B Facilitator needs to work strategically to guide the school-level MTSS-B Leadership Team toward a focus on advanced tiers using their implementation tool (e.g., TFI). It is also important for the MTSS-B Facilitator to ensure that, while advanced tiers have not been formally introduced, it is not appropriate to withhold support

from students needing Tier 2 or Tier 3 interventions within the context of its current structures. The MTSS-B Facilitator should advocate for strategic scale-up, launching advanced systems when the foundational infrastructure is solid, while still delivering necessary immediate support through existing or interim structures.

Benchmark 2: *MTSS-B Intervention Inventory Development (a living document)*. As the school-level MTSS-B Leadership Team begins building capacity in the TFI Tier 2 “Interventions” subscale, the MTSS-B Facilitator can use the *MTSS-B Intervention Inventory* (see Figure 8) and the *Sample ES Intervention Inventory* (see Figure 9) as a practical tool for supporting this work (Center on PBIS, 2025). The inventory helps teams organize, clearly define, as well as sustain the advanced interventions and resources available within the school. As staff gain proficiency in overseeing and delivering interventions (e.g., those introduced in the *Moving Toward Advanced Interventions* PL, Check-in/Check-out, Check & Connect, or other evidence-based interventions), the MTSS-B Intervention Inventory can function as a dynamic and evolving catalog of interventions available. This resource allows the team to reference available interventions, consider their entry/exit criteria, track their use, systematize progress monitoring, and make informed decisions about intervention matching for individual students.

Figure 9:

Sample ES Intervention Inventory

**Sample ES Intervention Inventory:
MTSS Intervention Continuum Mapping**

Name of Intervention (Who is the POC?)	Population of Students	Entry Criteria	Exit Criteria	Typical Length	Progress Monitoring Plan
Small Group Counseling (Mr. H)	Screening data, teacher input, parent input	Documented need Parent permission	Group curriculum complete	6-8 weeks	n/a
PRIM Behavior SEL Consultation (Ms. D)	Students exhibiting behavior of concern	Baseline observable/measurable behavioral data	Extinguished behavior of concern	9-18 weeks	Will vary
MFLC whole class targeted presentations	Identified grade or class level	Identified need Administrator approval	Group presentation complete	1-3 sessions	n/a
Sensory tools/supports (Ms. D)	Students identified with sensory needs	Documented need Parent notification	Successful fading	Varies	Will vary
Zones of Regulation, Inc 5 Point Scale, etc. (Mr. F)	Students with dysregulated behavior	A pattern of dysregulated behavior Documented need Parent permission	Completion of curriculum	6-8 weeks	Data in students' Expectations Charts
Self-Monitoring of taught skills (Mr. F)	Students with established Expectations Chart	Student buy-in and participation with Expectations Chart and parent notification	70-80% of point goals met for X weeks	6-8 weeks	Data in students' Expectations Charts
Check in - Check Out (CICO) (Ms. C)	Students with established Expectations Chart	Student buy-in and participation with Expectations Chart and parent notification	70-80% of point goals met for X weeks	6-8 weeks	Data in students' Expectations Charts
Strategic Social Skills Lessons (Ms. B)	Students identified with a specific social skill need	Identified & documented social skill need Parent permission	Lesson series completed with support during generalization	6-8 weeks	Data in students' Expectations Charts

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Benchmark 3: Universal Screening Installation. Universal screening represents a critical feature of MTSS-B, providing schools with a proactive method for identifying students who may be at risk for social, emotional, or behavioral concerns before challenges become otherwise exposed. In this MTSS-B Implementation Plan, the *Social, Academic, and Emotional Behavior Risk Screener* (SAEBRS) is an example of a universal screening tool (Illuminate Education, 2025). The SAEBRS is an easily available, evidence-based instrument that allows schools to efficiently collect data on student functioning across three domains (social, academic, and emotional). By using a schoolwide universal screening tool, the MTSS-B Leadership Team

may examine the resulting data, identify patterns of need at individual and schoolwide levels, as well as ensure supports are equitably and strategically delivered.

Perhaps most important, prior to deploying a schoolwide universal screening process, is the school's capacity to respond to the resulting data in a timely and effective manner. The MTSS-B Facilitator needs to work closely with the school-level MTSS-B Leadership Team and the educational agency to ensure a responsive infrastructure is in place prior to universal screening. Accordingly, school-level MTSS-B Leadership Teams must establish clear procedures for promptly interpreting results and initiating next steps. For example, students identified through screening as needing additional support should be matched with appropriate interventions cataloged in the MTSS-B Intervention Inventory. Moreover, the school must ensure immediate response protocols are operational for urgent concerns, such as suicidal ideation or other safety-related risks, to ensure that appropriate mental health or crisis interventions are provided without delay. In this way, universal screening with SAEBRS serves not only as an early identification mechanism but also as a data-informed strategy for coordinated supports that prioritize proactive strategies, prevention, as well as rapid response.

Transitioning to Phase 4. The transition from Phase 3 (Elaboration and Calibration) to Phase 4 (Maintenance and Sustainability) is a more subtle transition than any of the previous transitions, as this transition is one focused on maintaining and sustaining the existing components over time and through staffing changes. A common barrier to sustained MTSS-B implementation revolves around staff attrition, onboarding systems, and meeting the changing environmental and systemic changes associated with implementation of MTSS-B programming. Therefore, the focus of Phase 4 surrounds addressing these barriers and evolutions.

Phase 4: Maintenance & Sustainability

There are three primary benchmarks involved in Phase 4 of the MTSS-B Phased Implementation Plan. These benchmarks include building school-level frameworks for teacher induction, ensuring system adaptability, as well as ongoing program evaluation.

Benchmark 1: Induction System. Research indicates one of the most prevalent barriers to sustained MTSS-B implementation is adequate training among school staff (C. P. Bradshaw et al., 2009; Briesch et al., 2020; Childs et al., 2016; Fixsen et al., 2005; Pas et al., 2019; Scott et al., 2017; Sugai & Horner, 2006; Turri et al., 2016). Frequent turnover among school staff often exacerbates this challenge, as each departure represents a potential loss of institutional knowledge and school-level implementation expertise. Without a systematic process for orienting new staff to their MTSS-B framework, schools risk erosion of fidelity, inconsistency in practice, and ultimately, a diminished impact of the system.

Establishing a robust induction system for new staff is essential to sustaining schools' MTSS-B programs over time. The MTSS-B Facilitator's aim in this benchmark is to work with schools' leadership teams to develop an intentional induction process which ensures incoming teachers and staff receive the foundational training needed to support the ongoing schoolwide behavioral expectations, intervention procedures, and the use of data systems. The MTSS-B Facilitator should note, initial onboarding training alone is a starting point for new staff. New staff induction should also embed ongoing opportunities for coaching, peer support, and access to MTSS-B resources so that new staff are quickly integrated into the school's behavioral support culture. By assisting schools in the development of induction as part of the implementation infrastructure, the MTSS-B Facilitator may help schools to mitigate the

disruptive effects of staff turnover and maintain continuity their MTSS-B programming, hopefully preserving both fidelity and sustainability.

Benchmark 2: Innovations and Evolutions (Responding to Changing Data, Systems, and Student Needs). An important characteristic of an effective MTSS-B framework is its capacity to be both operational and adaptive (e.g., capable of evolving based on new evidence, changing student needs, and accumulated experiences) (Bruhn & McDaniel, 2021; Fixsen et al., 2005; Scott et al., 2017). The MTSS-B Facilitator and school-level MTSS-B Leadership Teams must therefore develop the skills, structures, and culture needed to continually refine their practices. This adaptability ensures that the system does not remain static but instead grows in response to contextual demands, emerging challenges, and shifting student populations.

The following domains are important to consider regarding adaptability: systems, practices, and data (Bruhn & McDaniel, 2021). Successful and sustainable implementation depends on these adaptive strategies and allows teams to adjust to evolving practices, research, data, systems, and challenges rather than relying on static, one-size-fits-all solutions (Fixsen et al., 2005). The MTSS-B Facilitator can support school-level MTSS-B Leadership Teams in considering and re-evaluating their MTSS-B framework and systems by reinforcing and encouraging ongoing program evaluation using the TFI (Center on PBIS, 2025).

Benchmark 3: Assessing Sustainability. Sustainability is a central concern in the long-term success of MTSS-B implementation. Beyond the use of fidelity measures such as the TFI, additional tools can support the MTSS-B Facilitator and school-level MTSS-B Leadership Teams in evaluating their capacity to sustain effective practices over time. One available resource is the *Sustainability Self-Assessment* developed by the Center on PBIS (McIntosh, 2017). This online resource document may be found at the following link:

<https://www.pbis.org/resource/sustainability-self-assessment> (McIntosh, 2017). This tool provides structured self-assessment rubrics at multiple levels (school, local educational agency, and state educational agency rubrics) allowing teams to examine the extent to which critical features of sustainability are present and actionable within their respective contexts.

For the MTSS-B Facilitator, the Sustainability Self-Assessment offers a framework to guide school-level MTSS-B Leadership Teams through the process of identifying strengths, identifying vulnerabilities, as well as through the process of developing an action plan to address areas that may be barriers to long-term implementation. This resource includes a preformatted action plan template that may be used to translate their self-assessment into a concrete action plan. By embedding this resource into regular team activities, the MTSS-B Facilitator can build capacity among school-level MTSS Leadership Teams and help ensure sustainability is not perceived as a final stage of implementation, but as an ongoing priority, integrated into their MTSS-B program.

Section 4: Summary of Results

With growing concerns regarding disruptive and problematic behaviors presenting in school settings, educational systems and agencies are seeking sustainable solutions that prioritize proactive and preventative approaches supported by empirical evidence. A substantial body of research highlights MTSS-B as an evidence-based framework capable of producing positive outcomes. Despite its demonstrated effectiveness, educational systems often encounter persistent barriers which impede sustained MTSS-B implementation. The literature consistently identifies several critical barriers which commonly include: (a) the establishment of dedicated leadership teams at both the agency and school levels, (b) the availability of stable funding and agency support, (c) access to professional development, coaching, and technical assistance, (d) clearly defined structures for data-based decision-making and ongoing evaluation, and (e) maintaining fidelity of implementation over time.

Given these barriers, there is a pressing need for systematic and structured framework that is accessible for systems-level practitioners seeking to scale up MTSS-B. The MTSS-B Phased Implementation Plan, introduced in this capstone, is designed to address this need by offering a practitioner-friendly framework that supports educational systems in advancing and sustaining implementation efforts.

Expected Impact

The expected impact when systems implement the MTSS-B Phased Implementation Plan is multifaceted, leading to positive outcomes for both system-level practices and student outcomes. In educational systems and agencies, the MTSS-B Phased Implementation Plan is anticipated to strengthen capacity within organizations by providing a clear systematic framework for implementation that meets individual school's needs. Specifically, both schools

and agencies may demonstrate improved and aligned leadership structures, improved access to professional development and coaching supports, and increased capacity to employ data-based decision-making. The MTSS-B Phased Implementation Plan is also expected to result in greater implementation fidelity by sequencing phases and benchmarks to build tasks and supports in a manageable and sustainable approach.

At the student level, consistent and sustained implementation of MTSS-B, through the MTSS-B Phased Implementation Plan, is expected to result in reduced rates of disruptive behaviors, reductions in exclusionary discipline practices, improvements in school climate and culture, and increased access to behavioral interventions. Additionally, the anticipated outcomes include greater equity among behavioral supports, improvements in student engagement, favorable social-emotional outcomes, and potential positive academic outcomes. By incorporating evidence-based methodologies with a practitioner-friendly framework, the MTSS-B Phased Implementation Plan expects to address known barriers to implementation while promoting sustainable improvements in both system-level capacity and student success.

Next Steps and Recommendations

Building on the findings and proposed framework in this capstone, this section outlines possible next steps and recommendations for practice, policy, and future research. Educational agencies seeking to adopt the MTSS-B Phased Implementation Plan and The MTSS-B Facilitators Guide will need to account for agency-specific variables associated with this type of organizational reframing. Considerations may include selecting an implementation fidelity tool, determining accessible outcome metrics, collecting baseline data among those metrics, projecting budgetary and personnel needs, as well as selecting, vetting, and acquiring intervention resources. One recommendation for educational agencies is to conduct a self-study,

incorporating input from stakeholders such as school administrators, systems specialists, school counselors, and school psychologists through a structured needs assessment.

Finally, although the MTSS-B Phased Implementation Plan offers a structured framework for guiding organizational restructuring, empirical research is needed to examine its efficacy within diverse educational contexts. Rigorous evaluation will help determine the extent to which the proposed framework improves fidelity of implementation, enhances student outcomes, and supports sustainable organizational practices. Such research would not only validate the framework but also provide actionable insights for refining and refreshing its use across educational agencies.

Section 5: Product for Practitioners

The MTSS-B Facilitator’s Guide was developed as a practitioner’s companion to the capstone “A Phased Implementation Framework for Systemwide Scale-Up of Multi-Tiered Systems of Support for Behavior (MTSS-B)”. This product for practitioners responds to the growing need for structured, research-informed approaches to address disruptive and problematic behavior in schools. The guide provides educational agencies with a phased, practitioner-friendly framework that blends research-based practices with scalable implementation steps, offering evidence-based and actionable resources.

Structure and Use

The MTSS-B Facilitator’s Guide is organized around a phased implementation model that allows systems-level specialists to guide schools in building and sustaining MTSS-B systems. To support this process, the guide includes professional learning presentation templates, facilitator notes, and detailed preparation and delivery guidelines. These resources are designed to make training and facilitation more accessible for systems specialists, ensuring consistency in professional learning while promoting adaptability across different educational contexts. The MTSS-B Facilitator’s Guide is intended to be a resource paired with agency-level professional development which is structured in a train-the-trainer format, equipping systems specialists to organize, prepare, and deliver professional learning across multiple school sites.

Implementation Phases

The MTSS-B framework is divided into four phases: (a) Exploration and Adoption, which emphasizes staff training, leadership team formation, and the drafting of behavior matrices; (b) Installation and Expansion, which centers on launching MTSS-B, establishing fidelity measures, and building leadership capacity; (c) Elaboration and Calibration, which

refines Tier 1 practices while systematically introducing Tier 2 and Tier 3 supports; and (d) Maintenance and Sustainability, which focuses on induction systems, adaptability to changing needs, and ongoing program evaluation. Each phase is supported by benchmarks that serve as indicators of readiness for transition.

Sustainability and Long-Term Impact

A key theme of The MTSS-B Facilitator's Guide is sustainability. The guide includes key components which equip schools with the capacity to withstand staff turnover, access ongoing professional learning, and continuously adapt to evolving student needs. Tools such as the Tiered Fidelity Inventory (TFI) and the PBIS Sustainability Self-Assessment are introduced as examples of companion resources necessary to monitor progress and long-term capacity. In doing so, the guide positions MTSS-B not as a one-time initiative but as an enduring, adaptive system capable of supporting student success across diverse educational settings.

Appendix: Literature Matrix

Capstone Literature Matrix

Parentetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
(James et al., 2019)	Longitudinal Disciplinary and Achievement Outcomes Associated with School-Wide PBIS Implementation Level	Evidence-based Framework Tier 1	Evidence supporting SWPBIS (Tier 1)	Do changes in SWPBIS implementation (based on, TFI scores) between two academic years predicts changes in student suspension rates and/or achievement over the same time period?	Quantitative Non-experimental, Longitudinal (2-years)	Ohio schools (n=85)	TFI Scores	Academic Outcomes Disciplinary Outcomes (OSSs)	Schools self-reported scores Data analysis procedures	+ Correlation w/ Reduced Disciplinary Outcomes No Academic Correlation
(Grasley-Boy et al., 2022)	The Additive Effects of Implementing Advanced Tiers of SWPBIS with Fidelity on Disciplinary Exclusions	Evidence-based Framework All Tiers	Evidence supporting SWPBIS (All Tiers)	Is there a statistically significant difference in the use of disciplinary exclusions in schools implementing only Tier 1 with fidelity compared with schools implementing Tier 1 and Tier 2, Tier 1 and Tier 3, or all three tiers with fidelity?	Quantitative Non-experimental, Longitudinal (2-years)	California schools (n=558)	TFI Scores for: Tier 1 only Tiers 1 & 2 Tiers 1 & 3 All 3 Tiers	10 categories of Disciplinary Outcomes	Data source: California PBIS Coalition	+ Correlation to implementing all three tiers with fidelity and lower rates of OSSs and referrals to law enforcement
(Childs et al., 2016)	The Relationship Between School-Wide Implementation of Positive Behavior Intervention and Supports and Student	Evidence-based Framework Tier 1	Evidence supporting SWPBIS (Tier 1)	Is there a decrease in the frequency of student discipline across time for schools implementing SWPBIS? Are the BoQ total and subscale scores related to differences in school-level discipline outcomes at initial	Quantitative Non-experimental, Longitudinal	1,122 schools in Florida [Elementary (n=724), Middle (n=248), High (n=150)]	BoQ Scores Years of Implementation	Disciplinary Outcomes (ODRs, ISSs, and OSSs)	The participating school teams completed 3 days of training. Ongoing technical assistance and coaching	+ Correlation to Reduced Disciplinary Outcomes

Parentetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
	Discipline Outcomes			status and across time (e.g., number of years implementing SWPBIS)?					(varied by district)	
(Noltemeyer et al., 2019)	Disciplinary And Achievement Outcomes Associated with School-Wide Positive Behavioral Interventions and Supports Implementation Level	Evidence-based Framework Tier 1	Evidence supporting SWPBIS (Tier 1)	Does increased implementation fidelity of SWPBIS across the tiers increase academic outcomes and decrease disciplinary outcomes?	Quantitative, Non-experimental	Ohio schools (n=153)	TFI Scores	Academic Outcomes Disciplinary Outcomes (OSSs)	Schools self-reported scores Data analysis procedures	+ Correlation Tier 1 to Reduced Disciplinary Outcomes No Academic Correlation
(Kittelman et al., 2022)	Optimal Timing for Launching Installation of Tiers 2 and 3 Systems of School-Wide Positive Behavioral Interventions and Supports	Scale-up for Tiers 2/3	Implementation timing	Does higher Tier 1 systems implementation fidelity predict higher Tiers 2 and 3 systems implementation fidelity? Does Tier 2 systems implementation differ for 1 schools with more years between Tier 1 and Tier 2 systems launch? Does Tier 3 systems implementation differ for schools with more years between Tier 1 and Tier 3 systems launch? Do Tier 2 and Tier 3 systems implementation differ for schools with more years between Tier 2 and Tier 3 systems launch?	Quantitative, Non-experimental, Longitudinal	U.S. States (n=27) School districts (n=244) Schools (n=776)	TFI Scores (Tier 1) Time to Tier 2 Launch (after Tier 1) Time to Tier 3 Launch (after Tier 2)	Tier 2 Fidelity Tier 3 Fidelity Computer-based analytical model to disaggregate data	Data extracted from NCES and PBIS Assessment	2-3 year lag from T1 to T2 increased T2 fidelity 1 year lag from T2 to T3 increased T2 implementation

Parentetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
(Briesch et al., 2020)	A Review of State-Level Procedural Guidance for Implementing Multitiered Systems of Support for Behavior (MTSS-B)	Scale-up with EBP components and critical features Attention to MTSS-B features	Systems & Framework	What are states providing: Types of social, emotional, and behavioral interventions that should be used with those students identified as at-risk for or exhibiting behavioral concerns? Appropriate measures to use in progress monitoring for behavioral concerns? How often should behavioral progress monitoring data be collected? How often should behavioral progress monitoring data be reviewed? What decision rule(s) should be used for evaluating response to behavioral intervention?	Systematic Review	MTSS Tier 2/3 implementation and guidance documents from state department of education websites (n=181) Total meeting inclusion criteria and behavior-specific guidance (n=44)	n/a	n/a	Systematic search procedures Inclusion and exclusion criteria Systematic coding procedures (w/ training and interrater reliability methods)	Some components of MTSS-B received greater emphasis than others among SEAs

Parentetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
(Bergeson et al., 2019)	A Problem-Based Learning Project Investigating Positive Behavioral Intervention and Supports (PBIS) District-Level	Evidence-based Framework Features needed for MTSS-B	District Level Systems Features Framework	What are the impediments leading to a lack of implementation fidelity and treatment integrity with the district-wide positive Tier II and Tier III implementation for PBIS? How can these impediments to Tier II and Tier III implementation be addressed and resolved? How does the superintendent's adaptive leadership knowledge effect fidelity of implementation? Are school districts who use Leadership Teams collecting data from schools indicating faithful implementation of Tier II and Tier III interventions?	Dissertation	District superintendents utilizing PBIS in the state of Missouri (n=164) Participants completing survey (n=27)	n/a	n/a	Survey Computer-based analysis	The district superintendent's role is vital to the success of PBIS. District-level leadership team that supports schools with PBIS are necessary. Tier 2 and Tier 3 committees with established systems and regular meeting are crucial.

Parentetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
(Scott et al., 2017)	Multi-Tiered System of Supports (MTSS) and Implementation on Science	Evidence-based Framework Features needed for MTSS-B	School Level Systems Implementation on Science Key Features	What is the range of MTSS implementation within schools in California? What is the reported level of staff buy-in for MTSS implementation? What degree of influence do the Implementation Drivers of Competency, Organization, and Leadership have on reported MTSS student outcomes reported by school principals within schools in California?	Dissertation	School Principals at MTSS schools in the state of California (n=2673) Participants completing survey (n=143) Complete surveys (n=135)	Competency Organization Leadership	Outcomes	Survey Computer-based analysis	Four areas of focus: Family engagement Program evaluation Budget allocation Technical Assistance
(Pas et al., 2019)	A State-wide Quasi-Experimental Study of the Scale-up of School-Wide Positive Behavioral Interventions and Supports	Agency-wide Scale-up (Tiers supporting Training Implementation on fidelity)	Evidence supporting SWPBIS (Tier 1)	Examination of the effects of Tier 1 SW-PBIS in one state's scale-1 up.	Quasi-experimental	Maryland public elementary, middle, and high schools (n=1316)	n/a	n/a	examination of archival data	+ Correlation Tier 1 to Reduced Disciplinary Outcomes and Increased Reading and Math outcomes in ES

Parentetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
(Turri et al., 2016)	Examining Barriers to Sustained Implementation of School-Wide Prevention Practices	Barriers to sustained SWPBIS implementation	Identifying barriers to SWPBIS implementation	What is the factor structure of the barriers measure, and is it invariant across stages of implementation? Are there mean differences in perceptions of barriers across schools at different stages of implementation? Controlling for school demographic variables, to what extent do perceptions of barriers relate to fidelity of SWPBIS implementation at each implementation stage?	Descriptive analysis	11 states, K-12 public schools (n=704)	Assessment of Identified Barriers to Implementation and Sustainability in Schools (ABISS), Implementation fidelity instruments (SET and BoQ), PBIS Self-Assessment Survey, Team Implementation Checklist	Identified barriers to implementation	Descriptive analysis	Barriers include: Lack of administrator support Staff buy-in Adequate training Resources
(Sugai & Horner, 2006)	A Promising Approach for Expanding and Sustaining School-Wide Positive Behavior Support	Key features of SWPBIS framework	Identification of key features of SWPBIS	n/a	Journal Article, Synthesis, Proposal	n/a	n/a	n/a	Research synthesis	Framework Tenets Features Processes
(C. P. Bradshaw et al., 2009)	Altering School Climate Through School-Wide Positive Behavioral Interventions and Supports:	Training directly affects school climate which directly effects outcomes	Importance of training of staff	Determine the impact of school-wide PBIS training on the staff members' perceptions of schools' organizational health.	5-year group randomized trial	Maryland public elementary schools (n=37) Staff (n=2596)	Training, Staff characteristics, School characteristics,	Correlations: Training > Fidelity Training > Climate	Descriptive analysis	Quality of training has a positive impact on implementation fidelity and school climate

Parentetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
	Findings from a Group-Randomized Effectiveness Trial						Organizational health (survey), and Implementation of fidelity			
(Debnam et al., 2012b)	Secondary and Tertiary Support Systems in Schools Implementing School-Wide Positive Behavioral Interventions and Supports	Barriers to T2/3 implementation fidelity	Tier 2 & 3 supports in a SWPBIS model school	Description of Tier 1, 2, & 3 features in SWPBIS programming which support social-emotional and behavioral learning. The level of services provided for Tier 2 & 3 programming.	Descriptive	Maryland public schools (n=45)	n/a	n/a	Descriptive analysis	Lack of Tier 2&3 implem. fidelity School-level support needs School-level procedures and systems need
(Fixsen et al., 2005)	Implementation Research: A Synthesis of the Literature	Core components and organizational components	Systemic Scale-up components	Descriptive analysis of key components involved with systemic scale-up programs	Synthesis	n/a	n/a	n/a	n/a	Implementation drivers, teams, and stages
(Ryoo et al., 2018)	Investigating the Effect of School-wide Positive Behavioral Interventions and Supports on Student Learning and Behavioral Problems in Elementary	Tier 1 implementation without results	Tier 1 implementation on state assessments and ISS/OSS	Examine the effect of SWPBIS on behavior problems and academic growth over time.	Quasi-experimental, Control Group, Longitudinal	Minnesota public schools ES (n=32) & MS (n=34)	TFI & BoQ scores	State assessment scores (mathematics and reading) & ISS/OSS rates	Statistical analysis	No significant correlations

Parenthetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
	and Middle Schools									
(Bruhn & McDaniel, 2021)	Tier 2: Critical Issues in Systems, Practices, and Data	Tier 2 Critical Features	Tier 2 Features	Identify research-based systems, practices, and data for successful Tier 2 implementation.	Meta analysis	n/a	n/a	n/a	Inclusion & exclusion procedures	matching, adaptations, PD, treatment fidelity
(Sailor et al., 2021)	Preparing Teacher Educators for Statewide Scale-Up of Multi-Tiered System of Support (MTSS)									
Sugai & Horner, 2020)	Sustaining and Scaling Positive Behavioral Interventions and Supports: Implementation Drivers, Outcomes, and Considerations	Key features for systemic scale-up	Systemic scale-up	Descriptive analysis of key components involved with systemic scale-up of SWPBIS	n/a	n/a	n/a	n/a	n/a	Leadership, organizational capacity, training and coaching systems, fidelity measurement, and data-informed decision-making

Parentetical Citation	Study Description	Connection to PoP	Primary Focus	Research Questions	Design	Sample/ Participants	Ind. Variables	Dep. Variables	Procedures	Results
(Freeman & Newcomer, 2015)	Integration of Academic and Behavioral MTSS at the District Level using Implementation Science	Key features for systemic scale-up	Systemic scale-up	Descriptive analysis of key components involved with systemic scale-up of SWPBIS	n/a	n/a	n/a	n/a	n/a	Implementation on drivers, communication, teams, and stages

References

- Algozzine, B., Barrett, S., George, L., Horner, H., Lewis, R., Putnam, T., Swain-Bradway, & McIntosh, J. (2019). SWPBIS Tiered Fidelity Inventory version 2.1 Citation for this Publication. www.pbisapps.org.
- Ali, M. M., West, K., Teich, J. L., Lynch, S., Mutter, R., & Dubenitz, J. (2019). Utilization of Mental Health Services in Educational Setting by Adolescents in the United States. *Journal of School Health*, 89(5), 393–401. <https://doi.org/10.1111/josh.12753>
- Bergeson, R. M., Jane Crawford, E. C., & Wayne Dierker, E. J. (2019). A PROBLEM-BASED LEARNING PROJECT INVESTIGATING POSITIVE BEHAVIORAL INTERVENTION AND SUPPORTS (PBIS) DISTRICT-LEVEL IMPLEMENTATION.
- Bitsko, R. H., Claussen, A. H., Lichstein, J., Lindsey, J., Black, I., Sherry, M., Jones, E., Danielson, M. L., Hoenig, J. M., Davis Jack, S. P., Brody, D. J., Gyawali, S., Maenner, M. J., Warner, M., Holland, K. M., Perou, R., Crosby, A. E., Blumberg, S. J., Avenevoli, S., ... Ghandour, R. M. (2022). Morbidity and Mortality Weekly Report (MMWR). <https://stacks.cdc.gov/view/cdc/113924>
- Bolman, L., & Deal, T. (2021). *Reframing Organizations* (7th ed.). Jossey-Bass.
- Bradshaw, C. P., Koth, C. W., Thornton, L. A., & Leaf, P. J. (2009). Altering school climate through school-wide positive behavioral interventions and supports: Findings from a group-randomized effectiveness trial. *Prevention Science*, 10(2), 100–115. <https://doi.org/10.1007/s11121-008-0114-9>
- Bradshaw, C., Pas, E., ... K. D.-R. and, & 2021, undefined. (2020). A randomized controlled trial of MTSS-B in high schools: Improving classroom management to prevent EBDs. *Journals.Sagepub.Com*, 42(1), 44–59. <https://doi.org/10.1177/0741932520966727>

- Briesch, A. M., Chafouleas, S. M., Nissen, K., & Long, S. (n.d.). MTSS-B GUIDANCE 1 A Review of State-Level Procedural Guidance for Implementing Multi-Tiered Systems of Behavioral Support (MTSS-B).
- Briesch, A. M., Chafouleas, S. M., Nissen, K., & Long, S. (2020). A Review of State-Level Procedural Guidance for Implementing Multitiered Systems of Support for Behavior (MTSS-B). *Journal of Positive Behavior Interventions*, 22(3), 131–144.
<https://doi.org/10.1177/1098300719884707>
- Bruggink, M., Meijer, W., Goei, S. L., & Koot, H. M. (2014). Teachers’ perceptions of additional support needs of students in mainstream primary education. *Learning and Individual Differences*, 30, 163–169. <https://doi.org/10.1016/j.lindif.2013.11.005>
- Bruhn, A. L., & McDaniel, S. C. (2021). Tier 2: Critical Issues in Systems, Practices, and Data. *Journal of Emotional and Behavioral Disorders*, 29(1), 34–43.
<https://doi.org/10.1177/1063426620949859>
- Center on PBIS. (2025). TIERED FIDELITY INVENTORY (TFI) MANUAL (Vol. 3). University of Oregon. www.pbis.org
- Childs, K. E., Kincaid, D., George, H. P., & Gage, N. A. (2016). The Relationship Between School-Wide Implementation of Positive Behavior Intervention and Supports and Student Discipline Outcomes. *Journal of Positive Behavior Interventions*, 18(2), 89–99.
<https://doi.org/10.1177/1098300715590398>
- De La Rosa, J. (2024). About One-Quarter of Public Schools Reported That Lack of Focus or Inattention From Students Had a Severe Negative Impact on Learning in 2023-24.
https://nces.ed.gov/whatsnew/press_releases/7_18_2024.asp

- Debnam, K. J., Pas, E. T., & Bradshaw, C. P. (2012). Secondary and Tertiary Support Systems in Schools Implementing School-Wide Positive Behavioral Interventions and Supports: A Preliminary Descriptive Analysis. *Journal of Positive Behavior Interventions*, 14(3), 142–152. <https://doi.org/10.1177/1098300712436844>
- Every Student Succeeds Act, Public Law 114-95 (2015). <https://www.congress.gov/bill/114th-congress/senate-bill/1177>
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. <http://nirn.fmhi.usf.edu>
- Fixsen, D. L., & Blase, K. A. (2008). *Drivers framework*. Chapel Hill: National Implementation Research Network, Frank Porter Graham Child Development Institute, The University of North Carolina.
- Freeman, R., & Newcomer, L. (2015). Integration of Academic and Behavioral MTSS at the District Level using Implementation Science. In *Learning Disabilities: A Contemporary Journal* (Vol. 13, Issue 1).
- Grasley-Boy, N. M., Gage, N. A., Lombardo, M., & Anderson, L. (2022). The Additive Effects of Implementing Advanced Tiers of SWPBIS With Fidelity on Disciplinary Exclusions. *Journal of Positive Behavior Interventions*, 24(3), 183–195. <https://doi.org/10.1177/10983007211011767>
- Gresham, F. M., Cook, C. R., Crews, S. D., & Kern, L. (2004). *Social Skills Training for Children and Youth with Emotional and Behavioral Disorders: Validity Considerations and Future Directions*.
- Guest, J. D., Ross, R. A., Childs, T. M., Ascetta, K. E., Curcio, R., Iachini, A., & Griffiths, L. (2024). Embedding social emotional learning from the bottom up in multi-tiered services

and supports frameworks. *Psychology in the Schools*, 61(7), 2745–2761.

<https://doi.org/10.1002/pits.23183>

Hendricker, E., Bender, S. L., & Ouye, J. (2021). The School Psychology Shortage and its Impact on Family-Based Programming. *Contemporary School Psychology*, 26, 55–77.

<https://doi.org/10.1007/s40688-021-00354-9/Published>

Illuminate Education. (2025). SAEBRS (The Social, Academic, Emotional Behavior Risk Screener). <https://www.illuminateed.com/products/fastbridge/social-emotional-behavior-assessment/saebrs/>. <https://www.illuminateed.com/products/fastbridge/social-emotional-behavior-assessment/saebrs/>

I-MTSS Research Network. (2023). Brief history of I-MTSS: Summary of major milestones toward an I-MTSS framework. In *Archives of General Psychiatry* (Vol. 17, Issue 3).

www.mtss.org

Irwin, V., Wang, K., Cui, J., & Thompson, A. (2024). Report on Indicators of School Crime and Safety: 2023 A Publication of the National Center for Education Statistics at IES.

<https://doi.org/https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2024145>

James, A. G., Noltemeyer, A., Ritchie, R., Palmer, K., & University, M. (2019). Longitudinal disciplinary and achievement outcomes associated with school-wide PBIS

implementation level. *Psychology in the Schools*, 56(9), 1512–1521.

<https://doi.org/10.1002/pits.22282>

Kittelman, A., Mercer, S. H., McIntosh, K., & Hoselton, R. (2022). Optimal Timing for Launching Installation of Tiers 2 and 3 Systems of School-Wide Positive Behavioral Interventions and Supports. *Journal of Positive Behavior Interventions*, 24(3), 171–182.

<https://doi.org/10.1177/1098300721996084>

Lane, K. L., Baldy, T., Becker, T., Bradshaw, C., Dolan, V., McIntosh, K., Nese, R., Payno-Simmons, R., Sutherland, K., Dymnicki, A., Freeman, B., Lemire, S., Moulton, S., Porowski, A., Anlar, L. H., & Jacobson, J. (2024). Teacher-Delivered Behavioral Interventions in Grades K-5 (WWC 2025001). <https://whatworks.ed.gov/>.

Long, C. (2024, August 6). Breaking the Cycle of Bad Behavior. NeaToday.

<https://www.nea.org/nea-today/all-news-articles/breaking-cycle-bad-behavior>

McIntosh, K. (2017). Sustainability Self-Assessment for Tier 1 MTSS. In www.pbis.org. OSEP TA Center on Positive Behavioral Interventions and Supports, University of Oregon.

<https://www.pbis.org/resource/sustainability-self-assessment>

McIntosh, K., & Goodman, S. (2016). Intergrated Multi-Tiered Systems of Support: Blending RTI and PBIS (S. Chafouleas, Ed.). Guilford Publications.

McIntosh, K., Herman, K., Bradshaw, C., & Simonsen JANUARY, B. (2023). IES MTSS-B Trial: Key Takeaways for District and State Leaders.

<https://www.pbis.org/resource/references-for->

Noltemeyer, A., Palmer, K., James, A. G., & Petrasek, M. (2019). Disciplinary and achievement outcomes associated with school-wide positive behavioral interventions and supports implementation level. *School Psychology Review*, 48(1), 81–87.

<https://doi.org/10.17105/SPR-2017-0131.V48-1>

Pas, E. T., Ryoo, J. H., Musci, R. J., & Bradshaw, C. P. (2019). A state-wide quasi-experimental effectiveness study of the scale-up of school-wide Positive Behavioral Interventions and Supports. *Journal of School Psychology*, 73, 41–55.

<https://doi.org/10.1016/j.jsp.2019.03.001>

PBIS IMPLEMENTATION BLUEPRINT. (2023). www.pbis.org

pbis.org. (n.d.). <https://www.pbis.org/resource/tfi>. Center on Positive Behavioral Interventions & Supports.

Prothero, A. (2023, April 20). Student Behavior Isn't Getting Any Better, Survey Shows. Education Week.

Ryoo, J. H., Hong, S., Bart, W. M., Shin, J., & Bradshaw, C. P. (2018). Investigating the effect of school-wide positive behavioral interventions and supports on student learning and behavioral problems in elementary and middle schools. *Psychology in the Schools, 55*(6), 629–643. <https://doi.org/10.1002/pits.22134>

Sailor, W., Skrtic, T. M., Cohn, M., & Olmstead, C. (2021). Preparing Teacher Educators for Statewide Scale-Up of Multi-Tiered System of Support (MTSS). *Teacher Education and Special Education, 44*(1), 24–41. <https://doi.org/10.1177/0888406420938035>

Schmitz, S. L., Clopton, K. L., Skaar, N. R., Dredge, S., & Vanhorn, D. (2021). Increasing School-Based Mental Health Services with a “Grow Your Own” School Psychology Program. *Contemporary School Psychology, 26*, 22–33. <https://doi.org/10.1007/s40688-020-00348-z/Published>

Scott, J., Brandon Gamble, E., Heidi Gilligan, E., Pavri, S., & Christina Dillard, B. (2017). MULTI-TIERED SYSTEM OF SUPPORTS (MTSS) AND IMPLEMENTATION SCIENCE.

Sugai, G., & Horner, R. H. (2020). Sustaining and Scaling Positive Behavioral Interventions and Supports: Implementation Drivers, Outcomes, and Considerations. *Exceptional Children, 86*(2), 120–136. <https://doi.org/10.1177/0014402919855331>

Sugai, G., & Horner, R. R. (2006). A promising approach for expanding and sustaining School-wide positive behavior support. *School Psychology Review*, 35(2), 245–259.

<https://doi.org/10.1080/02796015.2006.12087989>

The U.S. Surgeon General’s Advisory. (2021). Protecting Youth Mental Health.

<https://www.hhs.gov/sites/default/files/surgeon-general-youth-mental-health-advisory.pdf>

Turri, M. G., Mercer, S. H., McIntosh, K., Nese, R. N. T., Strickland-Cohen, M. K., & Hoselton, R. (2016). Examining Barriers to Sustained Implementation of School-Wide Prevention Practices. *Assessment for Effective Intervention*, 42(1), 6–17.

<https://doi.org/10.1177/1534508416634624>

U.S. Centers for Disease Control and Prevention. (2025, January 30). Data and Statistics on Children’s Mental Health. CDC Children’s Mental Health. <https://www.cdc.gov/children-mental-health/data->

[research/?CDC_AAref_Val=https://www.cdc.gov/childrensmentalhealth/data.html](https://www.cdc.gov/childrensmentalhealth/data.html)

Weist, M. D., Garbacz, A., Schultz, B., Bradshaw, C. P., & Lane, K. L. (2024). Revisiting the Percentage of K-12 Students in Need of Preventive Interventions in Schools in a “Peri-COVID” Era: Implications for the Implementation of Tiered Programming. *Prevention Science*, 25(3), 481–487. <https://doi.org/10.1007/s11121-023-01618-x>