Research Brief:
Multi-tier System of Supports (MTSS)

By: Orla Higgins Averill and Claudia Rinaldi, Urban Special Education Leadership Collaborative

Introduction: From RTI and PBIS to MTSS
Most educators are at least superficially familiar with the term response-to-intervention, or RTI. Since the 2004 reauthorization of the Individuals with Disabilities Education Improvement Act (IDEIA), which explicitly prohibits states from requiring school districts to use IQ-achievement discrepancy criteria in the identification of students with specific learning disabilities (2008) and encourages the use of a scientific, research-based approach known as response-to-intervention (Mandlawitz, 2007), “doing RTI” has become a veritable catchphrase in schools and classrooms throughout the country. RTI refers to the practice of providing high-quality, multi-tier instruction and interventions matched to students’ needs, monitoring student progress frequently to make decisions about instructional methods, and evaluating routinely collected data on student progress to determine the need to refer for special education support (Batsche, et al., 2005; Fuchs & Fuchs, 2006). While numerous examples of the model have been proposed, most models comprise several common features (Batsche, et al., 2005; Gresham, 2007), including universal screening of all students, multiple tiers of intervention service delivery, a problem-solving method, and an integrated data collection and assessment system to inform decisions at each tier of service delivery.

Positive Behavior Intervention and Supports, or PBIS, represents somewhat of a parallel model for behavior, in which preventative behavioral instruction is delivered to the whole school population in an effort to foster a positive school climate (McIntosh, Filter, Bennett, Ryan, & Sugai, 2010). Like RTI, PBIS espouses a multi-tier, data-based approach to service delivery. The first tier includes teaching and reinforcing a set of appropriate behaviors within the whole school; the second tier efficiently activates behavioral interventions for students who do not respond to core instruction; and the third tier involves intensive, individualized behavior support plans for students who do not respond to primary or secondary prevention support (McIntosh, et al., 2010, p. 6). As with RTI, an integrated data collection and assessment system informs decisions at each tier of service delivery.

While their foci are different, the underlying tenets of both RTI and PBIS draw upon the U.S. Public Health Service’s conceptual multi-tier pyramid model of prevention, which involves primary, secondary, and tertiary approaches as an organizing framework for efficiently delivering interventions in order to improve outcomes (see Walker, et al., 1996). This framework provides a source for understanding how RTI and PBIS originated, and how they can be woven together, offering the foundation for a Multi-tier System of Supports (MTSS).

Multi-tier System of Supports: A Comprehensive Framework
As discussed, the RTI and PBIS approaches each involve targeting specific areas in which students are struggling and applying increasingly intensive research-based interventions until the barriers to learning are addressed (Bender, 2009). Braided, both
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models directly address the academic and social, emotional, and behavioral development of children and youth, from early childhood through adolescence and represent the foundation of a comprehensive MTSS framework. MTSS leverages the principles of RTI and PBIS and further integrates a continuum of system-wide resources, strategies, structures, and practices to offer a comprehensive and responsive framework for systemically addressing barriers to student learning. MTSS offers the potential to create systemic change, which results in improved academic and social outcomes for all learners. Numerous school districts and states, including Los Angeles, Boston, Kansas, and Utah, have adopted an MTSS framework in an endeavor to more cohesively, comprehensively, and coherently meet the needs of all learners.

It is helpful to examine MTSS in further detail. MTSS, rooted in the data-informed practices of RTI and PBIS, explicitly offers a multi-tier approach: Interventions available to students are typically categorized into three tiers. Emphasis is placed on schoolwide, differentiated universal core instruction at Tier 1; Tiers 2 and 3 provide intensive and increasingly individualized interventions (Batsche, et al., 2005). Although the screening and progress monitoring procedures vary somewhat for academics and behavior, the three-tier conceptual model is similar across both domains. Tier 1 refers to the core curriculum delivered to all students that has a high likelihood of bringing the majority of students to acceptable levels of proficiency. Tier 2 provides supplemental instruction to those students who display poor response to the core instruction provided at Tier 1. Tier 3 involves the application of intensive instructional interventions designed to increase the rate of student progress. Tier 3 services may or may not include special education. A structured problem-solving process and integrated data collection system, based on the RTI and PBIS approaches, is utilized at each tier of the model (Batsche, et al., 2005; Fuchs & Fuchs, 2006). The effectiveness of instruction at each tier is determined by collecting data about students’ progress in a recommended monitoring schedule. Educators use a problem-solving model to evaluate the data and continuously and dynamically make informed decisions about instructional planning and intervention (Batsche, et al., 2005; Fuchs & Fuchs, 2006; Gresham, 2007). With its emphasis on evidence-based instruction and collaborative, iterative problem-solving, MTSS acknowledges that instruction and/or contextual issues, not student inability, could be the reason why students are not learning.

In addition to offering a multi-tier approach to assessment and intervention, MTSS integrates a systemwide continuum of supports. This means that organizational structures are established that provide a continuum of support for removing the systemic challenges and barriers that hinder students’ success. Such structures activate home-school-community relationships and bring together partners from the education, mental health, family, social service, medical, juvenile justice, recreation, and cultural domains within the multi-tier system. These collaborations, together with educational leadership at the district and school level, promote the formation of wraparound structures, supports, and practices to help students succeed in school.

Bringing MTSS to Scale

Previous educational change initiatives have often failed due to policymakers not meaningfully involving educators in decision-making or considering schools in the context of their larger social systems (Sarason, 1990).
As such, principles of systems change must be applied to facilitate the implementation of MTSS. Working within the MTSS framework requires that all school district staff, including teachers, central office personnel, school leaders, and student support specialists, change the way in which they have traditionally worked.

Castillo et al (2010) have developed technical guidance that provides an organizational blueprint for considering how to facilitate sustainable change within complex educational systems. Drawing from this work, successful implementation of MTSS within a systems change perspective generally involves three stages: consensus development, infrastructure building, and implementation (see Batsche, Curtis, Dorman, Castillo, & Porter, 2007; and Castillo, et al., 2010). District and school leadership must first achieve consensus on using MTSS practices; then build the necessary infrastructure to establish and sustain MTSS practices; and, finally, facilitate and evaluate the implementation of data-informed problem solving across a multi-tier service delivery framework. Using these stages to guide and inform the work will improve the sustainability of MTSS implementation. A brief description of each of the three components of the change model follows:

- **Consensus:** Key stakeholders in a district or school (e.g., superintendent, curriculum directors, principals, teachers, instructional support personnel, student services personnel) should arrive at consensus regarding the importance of MTSS implementation and commit to its adoption and sustainability. This is done through a discussion of beliefs and assumptions about teaching and student learning, in which educators at the district and school levels identify their own perceptions regarding the need for MTSS practices and together co-construct their vision of the MTSS framework enacted.

- **Infrastructure:** The development of infrastructure involves creating the structures required to facilitate and support implementation of the MTSS framework model. A district must examine its current goals, policies, resources, and personnel responsibilities with regard to their alignment with a MTSS model of service delivery. The following are examples of structures that school districts must consider addressing to enhance their capacity to implement MTSS:
  - Training and technical assistance to build capacity of all educators
  - Recalibration of district office roles that cross functionally support implementation
  - Identification of key district stakeholders whose primary focus will be on planning, implementation, and ongoing evaluation
  - Integration and management of data
  - Identification of Tier 1, Tier 2, and Tier 3 assessment and intervention practices across academic and behavioral domains
  - Establishment of decision criteria at each tier
  - Identification of community and family resources and partnerships
  - Identification of a systemwide continuum of supports across each domain
  - Modification of schedules to include protected time for problem-solving meetings, intervention delivery, universal screening and progress monitoring, and professional development
  - Provision of greater principal autonomy for determining school resource allocation to support MTSS
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- Alignment of district and school professional development with MTSS framework
- Provision of technology support around efficient and useful data collection and display
- Development of and/or alignment with district procedures, policies, and structures to promote common understanding and application of the MTSS framework with a focus on implementation fidelity

**Implementation:** Castillo et al. (2010) note that while the likelihood of successful implementation of system change practices is improved when consensus and infrastructure development occurs, Sarason (1990) suggests that many educational change initiatives fail due to a lack of cohesive implementation, implying a need to evaluate the extent to which critical components of MTSS are being implemented with fidelity and the long term support. Educators must identify the critical elements of the MTSS framework and at what level of detail and in what manner to measure those elements before being able to evaluate whether the framework has actually impacted student outcomes (Castillo, et al., 2010)

This brief outline provides a starting point for understanding the sustainable implementation of MTSS from a systems change perspective. As noted, working within the MTSS framework requires that all school district staff change the way in which they have traditionally worked. Business as usual is no longer enough to address the educational interests and needs of students. Training and technical assistance provide a critical catalyst for (1) facilitating understanding of MTSS and the development of consensus around MTSS practices, (2) establishing the necessary infrastructure, and (3) evaluating implementation fidelity to appreciate progress and understand results. When thoughtfully designed and executed with necessary training and other supports, the MTSS framework offers the potential to create systemic change that yields markedly improved academic and social outcomes for all learners.

**Selected Resources**

**Center on Instruction**
www.centeroninstruction.org

The Center on Instruction (COI) is one of five national content centers, part of the Comprehensive Center network, that is funded by the Office of Elementary and Secondary Education and the Office of Special Education Programs at the U.S. Department of Education. The COI offers materials and resources on (a) effective instruction within a Response to Intervention framework and (b) implementation of the RTI framework at the state, district, and local levels. An RTI Classification Tool and Resource Locator (RTI CTRL) is available to conduct in-depth searches for resources pertaining to specific RTI topic areas and stages of RTI implementation at the school, district and state levels.

**National Center on Response to Intervention**
www.rti4success.org

The National Center on Response to Intervention is housed at the American Institutes for Research and works in conjunction with researchers from Vanderbilt University and the University of Kansas. It is funded by the U.S. Department of Education’s Office of Special Education Programs (OSEP). The Center’s mission is to provide technical assistance to states and districts and build the capacity of states to
assist districts in implementing proven models for RTI.

**RTI Action Network**
www.rtinetwork.org

The RTI Action Network is dedicated to the effective implementation of Response to Intervention (RTI) in school districts nationwide. Its goal is to guide educators and families in the large-scale implementation of RTI so that each child has access to quality instruction and that struggling students are identified early and receive the necessary supports to be successful. The RTI Action Network is a program of the National Center for Learning Disabilities, funded by the Cisco Foundation and in partnership with the nation’s leading education associations and top RTI experts.

**What Works Clearinghouse**
http://ies.ed.gov/ncee/wwc/

The What Works Clearinghouse (WWC) is a source of scientific evidence for what works in education. An initiative of the U.S. Department of Education’s Institute of Education Sciences, the WWC produces practice guides for educators that address instructional challenges with research-based recommendations for schools and classrooms; assesses the rigor of research evidence on the effectiveness of interventions (programs, products, practices, and policies); develops and implements standards for reviewing and synthesizing education research; and provides a public and easily accessible registry of education evaluation researchers.

**References**


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About the Authors

Orla Higgins Averill, CAGS, is currently a training and technical assistance associate with the Urban Special Education Leadership Collaborative at Education Development Center, Inc. (EDC).

Claudia Rinaldi, Ph.D., is currently a senior training and technical assistance associate with the Urban Special Education Leadership Collaborative at Education Development Center, Inc. (EDC) and serves as a member of the National Center on Response to Intervention Technical Review Committee (TRC) on Tiered Instruction for the Office of Special Education Programs, Department of Education, Washington, D.C.

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