

Implementing MTSS in Beginning Reading: Tools and Systems to Support Schools and Teachers

Kaitlin M. Leonard and Michael D. Coyne 

University of Connecticut

Ashley C. Oldham

University of Saint Joseph

Darci Burns

HILL for Literacy

Margie B. Gillis

Literacy How

Multi-tiered Systems of Support (MTSS) frameworks are designed to directly support students with, and at risk for, disabilities by providing timely, aligned, and coordinated supports, with the goal of preventing or ameliorating the effects of early risk. Yet developing and implementing MTSS in beginning reading is a complex process. Many schools encounter common barriers to achieving full and sustained implementation of MTSS systems and practices. The purpose of this article is to describe a state K-3 reading initiative that resulted in improved reading outcomes for K-3 students, including students at risk for reading disabilities. Specifically, this article describes a series of tools (i.e., activity timeline, whole group and small group templates, data grouping workbook) that helped teachers in the initiative to overcome barriers in order to ensure that tiered instruction met the needs of all students, including students with, and at risk for, reading disabilities.

Schools are increasingly committed to organizing their K-3 reading instruction, intervention, and assessment practices within a multi-tiered systems of support (MTSS) framework (also known as response-to-intervention or RTI) to meet the needs of all students, particularly students with, or at risk for, reading disabilities. A central goal of MTSS frameworks is to prevent reading difficulties before they become entrenched and intractable, similar to prevention models in public health (Fletcher & Vaughn, 2009; Lembke, McMaster, & Stecker, 2010). Therefore, MTSS frameworks are designed to directly support students with, and at risk for, disabilities by providing timely, aligned, and coordinated reading supports, with the goal of preventing or ameliorating the effects of early risk.

To optimize outcomes for students with disabilities, special education services should be supported by effective MTSS practices. Such practices should be implemented school-wide, and should provide a continuum of supports for all students, including students with disabilities (Coyne, Kame'enui, & Simmons, 2001; Fuchs, Fuchs, & Stecker, 2010; Harn, Chard, & Kame'enui, 2011). For example,

by the time a reading disability is identified and special education services begin, students have often experienced significant and persistent reading failure for years (Lyon et al., 2001). Without access to early intervention services through general education, these students' first experience with explicit and systematic reading instruction in special education may not come until third or fourth grade. However, in a school that provides early intervention through MTSS frameworks, all students experiencing reading difficulties receive intensive instruction and intervention, beginning in kindergarten. Therefore, when a student is identified for special education services, the initial Individualized Education Program (IEP) can be developed as a continuation and expansion of current and ongoing reading instruction and intervention (Fuchs et al., 2010).

There is little disagreement about the common practices that are consistent across MTSS models for beginning reading (Fuchs & Fuchs, 2009; National Center on Response to Intervention, 2010). These practices include (a) establishing strong instructional leadership and coordinating efforts at the school level; (b) providing high-quality core classroom reading instruction to all students; (c) using universal screening and targeted progress monitoring data to inform instructional decisions; and (d) providing small-group interventions at increasing levels of intensity

Requests for reprints should be sent to Michael D. Coyne, Department of Educational Psychology, 249 Glenbrook Road #2064, Neag School of Education, University of Connecticut, Storrs, CT 06269, USA. Electronic inquiries should be sent to mike.coyne@uconn.edu.

to students, based on their response to core instruction and aligned with their instructional needs. There is also little disagreement that MTSS frameworks have great promise for meeting the needs of students with, or at risk for, reading disabilities (Gersten et al., 2009; Samuels & Farstrup, 2011).

Yet many times, when schools adopt an MTSS framework, they underestimate the work that it takes to coordinate and align MTSS practices, and overestimate the degree to which MTSS practices are implemented fully and with fidelity (Arden, Gandhi, Zumeta, & Danielson, 2017; Coyne, Oldham, Leonard, Burns, & Gage, 2016). Further, there is evidence that suggests that partial implementation of RTI or MTSS models may not improve student outcomes, particularly students with, or at risk, for learning disabilities (Balu et al., 2015; Harn et al., 2011). Although many schools implement practices and components of MTSS at a surface level, they haven't established the systems and tools that make accurate, deep, and sustained implementation possible (Balu et al., 2015).

In a recent state K-3 reading initiative, school teams needed to go beyond typical MTSS practice and "delve into the details" (Coyne et al., 2016) in order to overcome barriers and build the systems and infrastructure needed to support high quality implementation of MTSS in reading that met the needs of all students. The purpose of this article is to provide an overview of systems and tools that allowed schools in the state initiative to overcome barriers to implementation and enabled teachers and administrators to dive deep into the extensive work it takes to establish, coordinate, and sustain K-3 reading practices in assessment, instruction, and intervention. After providing an overview of the MTSS reading initiative, this article will outline common challenges and barriers that many schools, including the schools in the state initiative, face when implementing MTSS systems in K-3 reading. The article will then describe three tools/systems that teachers and schools used to overcome these barriers and support the implementation and coordination of central MTSS practices with fidelity, quality, and consistency. These tools include (a) a K-3 reading activity timeline, (b) whole-group/small-group templates, and (c) a data meeting workbook. Although there are many tools and strategies that can support MTSS efforts, teachers in the state initiative found these tools to be especially powerful for addressing the challenges of deep and sustained implementation.

OVERVIEW OF THE K-3 MTSS INITIATIVE

The state initiative consisted of a collaborative partnership between a state department of education and a research university, and placed an intensive focus on supporting schools in building the systems and infrastructure needed to support high-quality implementation of MTSS practices in K-3 reading. Four schools from four different school districts that serve high percentages of students from underrepresented populations were selected by the state department of education to participate in the pilot phase of the reading initiative based on (a) a record of persistently

low student reading achievement, (b) willingness to commit to systematic reading improvement, and (c) broad representation across priority high-need school districts in the state.

A series of mixed-effects models was conducted to estimate the value-added effect of implementing the K-3 reading initiative across three consecutive years on an aggregated indicator of overall reading achievement (Coyne et al., 2016). One year of implementation of the K-3 MTSS reading model resulted in a statistically significant impact on student reading achievement, with an overall effect size of .20, and two years of implementation resulted in an effect size of .50. Put another way, students who received one year of MTSS supports accelerated their reading performance by an average of 8 percentile points beyond what it would have been if they had not received coordinated supports, and students who received two years of supports accelerated their reading performance by 19 percentile points. Figure 1 presents school achievement across three years of the initiative, broken out by grade level on a composite measure of reading achievement, and using Z scores constructed from DIBELS measures that were collected consistently for each grade, and with Year 1 set as the baseline or reference year. The data reported in Figure 1 illustrate how end-of-the-year reading achievement increased for each grade across each year of the initiative.

Equally important, the impact of the MTSS initiative on the reading achievement of students identified as at risk for reading disabilities was also statistically significant and educationally meaningful (Coyne et al., 2018). Effects of intensive Tier 2 intervention were evaluated using a regression discontinuity design, which demonstrated accelerated student reading growth of students with and at risk for reading disabilities beyond what would be expected if they had only received Tier 1 reading instruction. Results from both analyses suggest that when these schools were able to implement coordinated and sustained MTSS practices and systems, their students - including students with, and at risk for, reading disabilities - demonstrated accelerated reading achievement that was evident across grades K-3, and that these gains increased across years of implementation (Coyne et al., 2016; Coyne et al., 2018).

In the following sections, the article will describe three tools/systems that teachers and schools in the K-3 reading initiative used to support the implementation and coordination of central MTSS practices. Each of these tools helped teachers overcome common challenges and barriers that many schools, including the schools in the state initiative, face when implementing MTSS systems in K-3 reading. The three tools are summarized in Figure 2.

Supporting School-Level Reading Implementation: Activity Timeline

Common Barrier: We Have a School Literacy Plan, But We Do Not Use It to Guide Our Day-To-Day Practices

Schools often create a school literacy plan that outlines broad reading goals and objectives for the upcoming school

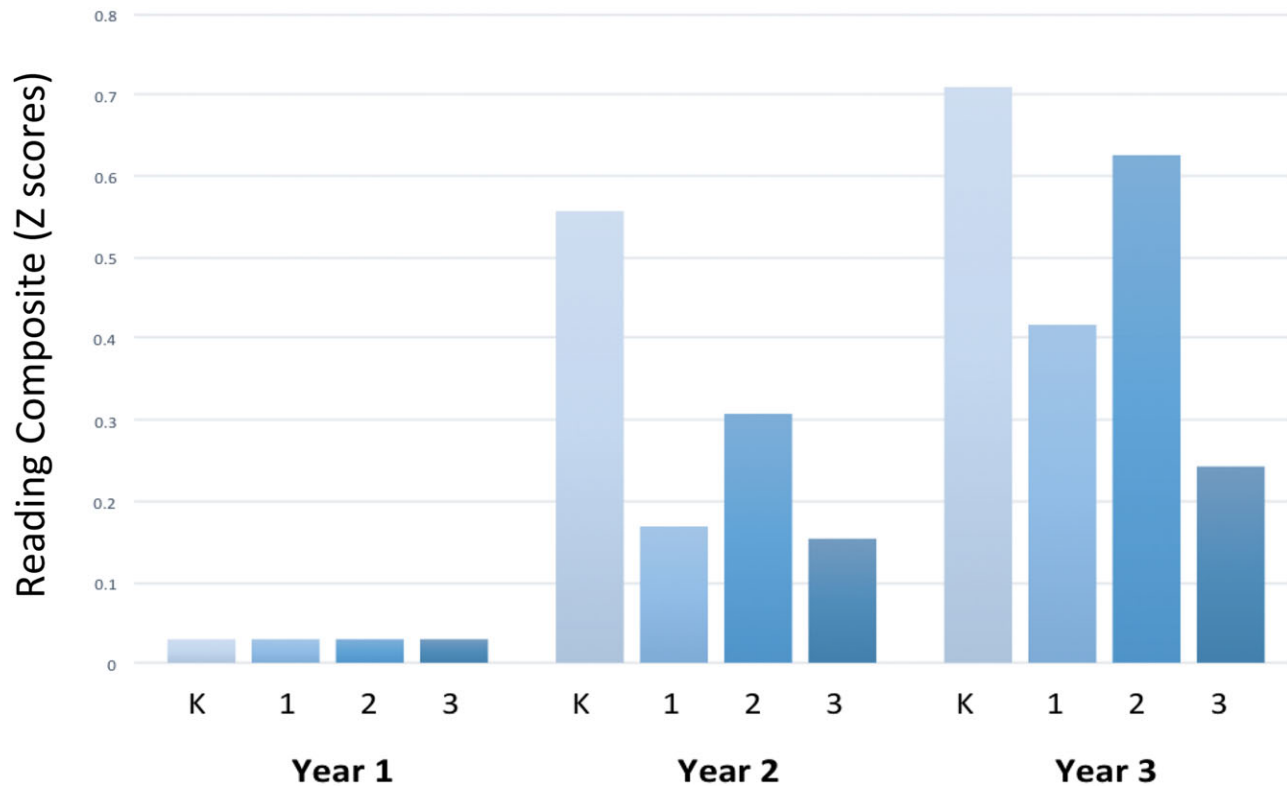


FIGURE 1 Changes in end-of-the-year reading achievement by grade level over three years of a state K-3 MTSS initiative. [Color figure can be viewed at wileyonlinelibrary.com]

Note: Year 1 achievement was used as a baseline.

year (Jones, Burns, & Pirri, 2010). For example, typical schoolwide MTSS reading goals focus on leadership, tiered instruction, and assessment. School literacy plans are designed to guide a school's reading practices, but teachers in the state K-3 reading initiative reported that they did not use these plans for proactively planning and subsequently documenting activities during the school year, or for making informed, ongoing decisions about MTSS practices in reading. Often, school literacy plans sit in a drawer, and are only reviewed at the end of each school year when the plan is revised for the following year. When a school's literacy plan is not linked to specific activities throughout the year, teachers and administrators may lose sight of literacy priorities, and, in turn, may lose focus (Coyné et al., 2016). Unclear priorities can sometimes create an environment when teachers feel uncertain and unsupported, and as a result, become disengaged. An *activity timeline* can bridge the gap between a school's literacy plan and day-to-day practice. The purpose of the activity timeline in the state initiative was to document all reading activities in a school and link these activities directly to the goals of the school literacy plan.

The activity timeline is simple in form, but can make a significant impact on school practice. An activity timeline is essentially a log that details every activity across a school that focuses on reading. The activity timeline documents the date and time of the activity, as well as a description and

content focus of the activity. The activity timeline also includes the materials needed for the activity, who facilitated the meeting, and who attended. Most importantly, the activity timeline requires teachers and administrators to document how the activity aligns to a specific goal from the school literacy plan. To develop an activity timeline, a school's literacy leadership team should prepopulate the timeline with activities that they know will occur throughout the school year, in order to protect these times and ensure that they are included on the school calendar. These activities include (a) data collection windows, (b) different literacy team meetings (e.g., literacy leadership team, data team, coaches, implementation support, and administrative), (c) professional development, and (d) family literacy events. In addition, schools add other activities that occur throughout the year. For example, schools in the literacy initiative incorporated additional training and coaching events into the timeline that were scheduled throughout the year, based on identified and ongoing needs of teachers and interventionists.

The activity timeline helped schools in the state MTSS initiative focus on priorities, coordinate and align activities with school-wide goals, and reduce redundancies. If an activity did not align with a literacy goal, the school re-evaluated its importance. Additionally, if there were multiple activities that seemed redundant (e.g., separate unaligned professional development activities focused on reading), the school considered better coordinating different reading events. For

Tool	Description	Purpose
Activity Timeline	A detailed log that documents all literacy activities across a school and includes the date and time of the activity, a description and content focus of the activity, the materials needed, who facilitated the meeting, and who attended.	<ul style="list-style-type: none"> • Helps schools focus on priorities, coordinate and align activities with school-wide goals, and reduce redundancies. • Monitors the implementation and fidelity of the school literacy plan by documenting all activities associated with each literacy goal.
Whole-Group and Small-Group Templates	Templates that outline the critical components or the “non-negotiables” of core and intervention programs and that provide guidance on how to allocate instructional time to these components during daily instruction and intervention.	<ul style="list-style-type: none"> • Guide instruction and intervention in all Tiers and act as a road map for day-to-day instruction. • Provide frameworks for developing observation checklists to support fidelity and facilitate coaching.
Data Grouping Workbook	Spreadsheet that includes all reading assessment data for each student, as well as an instructional focus, information about small group instruction, intervention materials, and assigned interventionists.	<ul style="list-style-type: none"> • Compiles all relevant assessment information and documents instructional and intervention decisions for each student. • Facilitates a clear and consistent process for using data to answer important questions about student reading achievement and make informed instructional and grouping decisions.

FIGURE 2 Effective tools to guide MTSS implementation.

example, one school in the initiative had the opportunity to participate in a district-sponsored professional development on general principles of differentiation. However, because the school already had targeted training scheduled that focused specifically on differentiating reading instruction within the context of their core reading program, they determined that the district professional development duplicated existing professional development. Therefore, they decided not to participate in the district professional development, and instead to use that time for activities that were more specifically aligned with their school reading goals.

Schools also used their activity timeline as a tool to monitor the implementation and fidelity of the school literacy plan by documenting all activities associated with each literacy goal. At the end of each year of the state MTSS initiative, the literacy leadership team reviewed the school literacy plan and activity timeline to evaluate progress towards goals and objectives. This process facilitated discussions and provided important implementation data that enabled team planning (Coyne et al., 2016). For example, the school literacy plan may specify that the school leadership team should meet once per month. If the activity timeline shows that three leadership team meetings were cancelled for various reasons and were not rescheduled, these data can help schools problem-solve and make improvements for the next school year.

Supporting Grade-Level Reading Implementation: Whole Group and Small Group Templates

Common Barrier: We Have Adopted a Common Approach to Literacy, but We Do Not Feel That Instruction is Consistent Across the Grade Level

High-quality classroom reading instruction (i.e., Tier 1 instruction) is the foundation of an effective MTSS framework (Al Otaiba et al., 2011; Marchand-Martella, Ruby, & Martella, 2007). The goal of Tier 1 classroom instruction, which includes both whole-class and targeted small-group instruction, is to provide comprehensive and differentiated instruction in all areas of reading to all students. Providing differentiated instruction in Tier 1 is particularly important for students with, and at risk for, reading disabilities, to ensure that classroom instruction is aligned to their needs and IEP goals (Fien et al., 2015). In an MTSS framework, classroom reading instruction is coordinated across teachers and grades, to ensure that all students receive a consistent and systematic approach to learning (Coyne et al., 2016).

Many schools adopt a published core reading program as a resource for supporting Tier 1 classroom instruction (Al Otaiba, Kosanovich-Grek, Torgesen, Hassler, & Wahl,

2005). Well- designed core programs help teachers implement effective reading instruction because they (a) include detailed lesson plans and a systematic scope and sequence for teaching reading, (b) create horizontal and vertical alignment across grade levels, and (c) provide differentiated materials that allow for targeted whole-group and small-group instruction within Tier 1.

Although core programs can support high-quality reading instruction, implementing them can be overwhelming. There are many parts to core programs, including both whole-class and small-group activities, and teachers in the state initiative found it difficult to implement every component, even within a 90-minute reading block. However, identifying which components of whole-class and small-group instruction are essential can be challenging for teachers (Coyne et al., 2016). Teachers at the same grade level often choose different parts of the core program to teach, and often are not consistent in how they teach these parts. Teachers are often given general advice to follow the core program exactly as written, and with fidelity. Teachers discover very quickly, however, that this task is impossible, and are unsure how to make decisions about the most important elements of the program to implement.

Developing whole-group and small-group templates helped teachers in the state K-3 reading initiative identify the critical components of their core reading program and ensure that Tier 1 instruction was implemented consistently across classrooms. Whole-group and small- group templates are documents, developed by grade level teams, that outline the elements of the core program that should be prioritized, and provide guidance on how to best allocate instructional time to these key elements over time. Because schools in the state MTSS initiative served a high percentage of students experiencing reading difficulties, the teams focused on prioritizing time in both whole class and small groups to teaching components of the core program that targeted foundational reading skills and comprehension strategies (Foorman et al., 2016). For example, during a 45-minute whole-class instructional block in second grade, the whole-group template indicated allocating 10 minutes to developing oral vocabulary and concept development, and then the remaining 35 minutes on the core program's phonics and spelling activities (introduce new skill and review previously taught skills and high-frequency words) and comprehension activities (introduce new comprehension strategy and practice during teacher read-aloud of main selection).

To develop whole-group and small-group templates, grade-level teams worked together, with the support of the school literacy coach and/or reading specialist, to determine the critical components or the "non-negotiables" that should be implemented during Tier 1 instruction. Templates should accurately represent what whole-class and small-group instruction should look like during Tier 1, and should essentially act as a road map for day-to-day instruction. Teachers then followed the whole-group and small-group templates until their next grade level meeting, when they discussed what was working and what was not, and then made changes and refinements (Coyne et al., 2016). Whole-group and small-group templates are working documents, and grade-level teams revisited them frequently throughout the school year

and across years and made changes in response to student needs and performance.

In addition to helping teachers implement important features of the core program consistently, whole-group and small-group templates can also be used to support and document fidelity. In the K-3 reading initiative, coaches used the whole-group and small-group templates to develop observation fidelity checklists to facilitate coaching. Because teachers developed these templates themselves, based on their instructional priorities, they perceived the observation process as fair and constructive. Teachers and coaches used observations to develop goals towards improving instruction (Coyne et al., 2016).

Supporting Data-Based Instructional Decisions in Reading: Data Grouping Workbooks

Common Barrier: We Have Useful Data on Our Students, but We Feel That We Are Not Able to Make Meaningful Instructional Decisions

Student assessment data provide information that can guide teachers and schools in aligning instructional supports to student needs (Kame'enui et al., 2006). Assessment data are useful when they answer critical questions and inform instruction for all students (Coyne & Harn, 2006). Some questions that school- and grade-level data teams should ask include:

1. Is our current reading instruction working?
2. Which students are at-risk for falling behind and require more intensive instruction to accelerate their reading growth?
3. What should the focus of instruction be for each student?
4. Are students who receive intervention making sufficient progress to make targeted end-of-the-year reading benchmarks?

When teachers can answer these questions, they are better able to make informed instructional decisions for all students.

Schools, however, often have a vast amount of data between standardized assessments, reading program assessments, screening measures, and required district assessments. To complicate things even more, data reports often provide an overwhelming amount of information, and are often challenging to interpret (Coyne, Kame'enui, Simmons, 2001). When this happens, teachers and data teams can have difficulty sifting through the data and making critical instructional decisions. Therefore, schools need to develop a process to organize and interpret data in a way that allows teachers to ask and answer important questions about students' reading achievement.

A data grouping workbook is a tool that facilitates efficient instructional decision making by organizing student data in a document that also includes information about intervention and grouping options. In the state initiative, data grouping workbooks were Excel spreadsheets that contained

all reading assessment data; there was one workbook per school, and one spreadsheet per grade level.

To develop a data grouping workbook, school data teams compiled screening data, district standardized assessments, and progress monitoring data in a single document. Teams then identified an instructional level and focus for each student, and included information about the small-group instruction that each student would receive in both Tier 1 classroom instruction and any supplemental Tier 2/3 intervention. Finally, the workbook documented the instructional materials or program that would be used with each student, and the interventionist delivering small-group instruction and/or intervention. The data grouping workbook was a way for school teams to compile all relevant assessment information, along with instructional and intervention decisions for each student. There can easily be misalignment between instruction and intervention supports for students with disabilities across general and special education, something that can result in a lack of intensity and consistency of instruction (Fuchs, Fuchs, McMaster, & Lemons, 2018). Therefore, data grouping workbooks supported students with reading disabilities by providing a standardized process for documenting the alignment between reading supports in Tiers 1, 2, and 3.

In the state K-3 reading initiative, a specific protocol guided grade-level teams in using the data grouping workbook, and was facilitated by the literacy coach. First, teachers reviewed reading assessment data compiled in the workbook and gave each student a primary instructional focus. All of the instructional foci were directly linked to curriculum-based measurement subtests. Examples of instructional foci in kindergarten in the winter were phonemic awareness, letter identification, letter sounds, blending with automaticity, and decoding beyond CVC. In second grade, during the winter benchmark period, instructional foci included language acquisition, decoding, fluency-accuracy, fluency-automaticity, fluency-prosody/comprehension, and vocabulary/comprehension. Instructional foci were dynamic, and changed throughout the school year. For Tier 1 small group instruction, students with similar needs were grouped together (e.g., advanced, on level, below level), scheduled (e.g., amount of time per day, number of days per week, within class/across class), and assigned an instructor (e.g., teacher, specialist, paraprofessional). Next, students who needed supplemental, more intensive instruction were assigned to an intervention program and interventionist, and a progress monitoring schedule was indicated for these students.

For example, a school's data grouping workbook could (a) include a specific second grade student's DIBELS fall benchmarking scores; (b) indicate that her instructional focus is fluency-accuracy; (c) document that her Tier 1 small group meets 4x per week, focuses on strategic review of whole-class phonics instruction, and is led by an interventionist who pushes in during Tier 1 instruction; (d) specify that she receives supplemental Tier 2 intervention outside of the classroom 3x per week for 40 minutes, using the school's fluency intervention program, and taught by the same interventionist; and (e) indicate that her reading progress will be monitored using ORF once per week. Finally, the data workbook, which documents all these instructional decisions, was disseminated to all teachers and interventionists.

The data grouping workbook was used throughout the school year in different types of data meetings: pre-data meetings, grade-level data meetings, implementation meetings, progress monitoring meetings, and interventionist meetings. The purpose of pre-data meetings, which occur in the fall, winter, and spring after benchmark screening assessments are completed, was to gather all specialists in the building (e.g., special educators, ELL teachers, reading specialist and/or reading coach, reading interventionists) to review data and make grouping decisions for students with intensive needs prior to grade-level meetings. Grade-level data meetings included classroom teachers, building administrators, and the literacy coach. The purpose of grade-level data meetings was to make instructional and grouping decision for the remaining students. Grade-level teams continued to meet monthly during implementation meetings to discuss Tier 1 instruction and make adjustments as needed.

Progress monitoring meetings were scheduled every 6–8 weeks to monitor student growth and make instructional modifications for students receiving intervention. Progress monitoring meetings were attended by special educators, ELL teachers, reading interventionists, building administrators, and the literacy coach. Finally, interventionist meetings occurred once per month to monitor implementation of small-group instruction and intervention. At each of these meetings, the data grouping workbook and detailed meeting procedures provided a clear and consistent process that enabled teachers to use data to answer important questions about student reading achievement and make informed decisions about instruction and intervention.

CONCLUSION

Implementation of MTSS in reading is challenging, and may take more effort than schools initially realize in order to make a whole school change and successfully meet the needs of all students. Additionally, schools often face common structural and procedural barriers to coordinated and sustained implementation of MTSS. Successful implementation of RTI requires schools to think critically, and with ambitious intent (Fuchs, Fuchs, & Compton, 2012). The organizational structure, comprehensive data system, team collaboration (e.g., grade-level teams, literacy leadership teams), coordinated service delivery, and intense focus on literacy allowed for schools in the state K-3 reading initiative to accelerate reading growth for all students, including students at risk for reading disabilities.

This article described three tools that teachers found to be helpful in overcoming barriers to attain full implementation of MTSS practices and systems that resulted in accelerated reading outcomes for K-3 students, including students at risk for reading disabilities. These include (a) an activity timeline, (b) whole-group and small-group reading templates, and (c) a data grouping workbook. The activity timeline documents all reading activities and links them directly to the school's literacy plan so that schools can act planfully when deciding which activities will assist them in achieving their annual literacy goals. The whole-group and small-group templates give teachers a detailed roadmap for providing differentiated,

targeted, and consistent instruction and intervention. Finally, the data grouping workbook provides a systematic data-based decision-making process that includes all students.

ACKNOWLEDGMENTS

The research described in this article was supported in part by Grant H325H140001 from the Office of Special Education Programs, U.S. Department of Education. Nothing in the article necessarily reflects the positions or policies of the federal government, and no official endorsement by it should be inferred.

REFERENCES

- Al Otaiba, S., Folsom, J. S., Schatschneider, C., Wanzek, J., Greulich, L., Meadows, J., et al. (2011). Predicting first-grade reading performance from kindergarten response to tier 1 instruction. *Exceptional Children, 77*(4), 453–470.
- Al Otaiba, S., Kosanovich-Grek, M. L., Torgesen, J. K., Hassler, L., & Wahl, M. (2005). Reviewing core kindergarten and first-grade reading programs in light of No Child Left Behind: An exploratory study. *Reading & Writing Quarterly, 21*(4), 377–400.
- Arden, S. V., Gandhi, A. G., Zumeta, R., & Danielson, L. (2017). Toward more effective tiered systems: Lessons from national implementation efforts. *Exceptional Children, 83*(3), 269–280. <https://doi.org/10.1177/0014402917693565>
- Balu, R., Zhu, P., Doolittle, F., Schiller, E., Jenkins, J., & Gersten, R. (2015). *Evaluation of response to intervention practices for elementary school reading (NCEE 2016-4000)*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Coyne, M. D., & Harn, B. (2006). Promoting beginning reading success through meaningful assessment of early literacy skills. *Psychology in the Schools, 43*, 122–133. <https://doi.org/10.1002/pits.20127>
- Coyne, M. D., Kame'enui, E. J., & Simmons, D. C. (2001). Prevention and intervention in beginning reading: Two complex systems. *Learning Disabilities Research & Practice, 16*(2), 62–73.
- Coyne, M. D., Oldham, A., Dougherty, S. M., Leonard, K., Koriakin, T., Gage, N. A., et al. (2018). Evaluating the effects of supplemental reading intervention within an MTSS or RTI reading reform initiative using a regression discontinuity design. *Exceptional Children, 84*(4), 350–367.
- Coyne, M. D., Oldham, A., Leonard, K., Burns, D., & Gage, N. (2016). Delving into the details: Implementing multi-tiered K-3 reading supports in high priority schools. In B. Foorman (Ed.), *Challenges and solutions to implementing effective reading intervention in schools. New directions in child and adolescent development, Number 154* (pp. 67–85). New York: Wiley.
- Fien, H., Smith, J. L. M., Smolkowski, K., Baker, S. K., Nelson, N. J., & Chaparro, E. (2015). An examination of the efficacy of a multitiered intervention on early reading outcomes for first grade students at risk for reading difficulties. *Journal of Learning Disabilities, 48*(6), 602–621. <https://doi.org/10.1177/0022219414521664>
- Fletcher, J. M., & Vaughn, S. (2009). Response to intervention models as alternatives to traditional views of learning disabilities: Response to the commentaries. *Child Development Perspectives, 3*, 48–50. <https://doi.org/10.1111/j.1750-8606.2008.00076.x>
- Foorman, B., Beyer, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., et al. (2016). *Foundational skills to support reading for understanding in kindergarten through 3rd grade (NCEE 2016-4008)*. Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education.
- Fuchs, L. S., & Fuchs, D. (2009). On the importance of a unified model of responsiveness to intervention. *Child Development Perspectives, 3*, 41–43. <https://doi.org/10.1111/j.1750-8606.2008.00074.x>
- Fuchs, D., Fuchs, L. S., & Compton, D. L. (2012). Smart RTI: A next-generation approach to multi-level prevention. *Exceptional Children, 78* (3), 263–279.
- Fuchs, D., Fuchs, L. S., McMaster, K. L., & Lemons, C. J. (2018). Students with disabilities' abysmal school performance: An introduction to the special issue. *Learning Disabilities Research and Practice, 33*(3), 127–130.
- Fuchs, D., Fuchs, L. S., & Stecker, P. M. (2010). The “blurring” of special education in a new continuum of general education placements and services. *Exceptional Children, 76*, 301–322.
- Gersten, R., Compton, D., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., et al. (2009). *Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades. A practice guide (NCEE 2009-4045)*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Harn, B. A., Chard, D. J., & Kame'enui, E. J. (2011). Meeting societies' increased expectations through responsive instruction: The power and potential of systemwide approaches. *Preventing School Failure, 55*(4), 232–239. <https://doi.org/10.1080/1045988X.2010.548416>
- Jones, S., Burns, D., & Pirri, C. (2010). *Leading literacy change: Strategies and tools for administrators, teachers, and coaches*. Dallas TX: Cambium Learning.
- Kame'enui, E. J., Fuchs, L., Francis, D. J., Good III, R., O'Connor, R. E., Simmons, D. C., et al. (2006). The adequacy of tools for assessing reading competence: A framework and review. *Educational Researcher, 35*, 3–11.
- Lembke, E., McMaster, K. L., Stecker, P. M. (2010). The prevention science of reading research within a response-to-intervention model. *Psychology in the Schools, 47*, 22–35. <https://doi.org/10.1002/pits.20449>
- Lyon, G. R., Fletcher, J. M., Shaywitz, S. E., Shaywitz, B. A., Torgesen, J. K., Wood, F. B., et al. (2001). Rethinking learning disabilities. In C. E. Finn Jr., A. J. Rotherham, & C. R. Hokanson, Jr. (Eds.), *Rethinking special education for a new century* (pp. 259–287). Washington, DC: Thomas B. Fordham Foundation.
- Marchand-Martella, N. E., Ruby, S. F., & Martella, R. C. (2007). Intensifying reading instruction for students within a three-tier model: Standard-protocol and problem solving approaches within a Response-to-Intervention (RTI) system. *TEACHING Exceptional Children Plus, 3*(5), n2.
- National Center on Response to Intervention. (2010). *Essential components of RtI – A closer look at response to intervention*. Washington, DC: U.S. Department of Education, Office of Special Education Programs, National Center on Response to Intervention. Retrieved from <http://www.rti4success.org/resource/essential-components-rti-closer-look-response-intervention>
- Samuels, S. J., & Farstrup, A. E. (2011). *What research has to say about reading instruction* (4th ed.). Newark, DE: International Reading Association.

About the Authors

Kaitlin M. Leonard, M.Ed., is currently pursuing a Ph.D. in special education with a specialization in reading at the University of Connecticut. Kaitlin is a National Center for Leadership in Intensive Interventions (NCLII) scholar.

Michael D. Coyne, Ph.D., is a professor of Educational Psychology in the Neag School of Education, University of Connecticut. He is coordinator of the Special Education program and co-director of the Center for Behavioral Education and Research. He is a former special educator in public schools.

Ashley C. Oldham, is an Assistant Professor of Special Education and Program Director for Special Education at the University of Saint Joseph in West Hartford Connecticut. Dr. Oldham earned her Ph.D. in Special Education from the University of Connecticut in 2013. Her current research focuses on the implementation of scientifically based reading instruction within a multitier system of support. Dr. Oldham is a former elementary and middle school special educator.

Darci Burns, Ph.D., is currently the executive director of the non-profit organization, HILL for Literacy. Dr. Burns received her doctoral degree at the University of Oregon with a specialization in English-language learners, instructional design and research methodology. She is the author of *Leading Literacy Change* and several articles on interventions for English-language learners and the implementation of multi-tiered systems of supports.

Margie B. Gillis, Ed.D., is the president of Literacy How and a Research Affiliate at Haskins Laboratories. She received her masters at the University of Connecticut and her doctorate at the University of Louisville. Her research interests are in the implementation of research-based literacy instruction in preschool – 12th grade classrooms and the role that professional development plays in supporting evidence-based practices.