

The Science of RTI Implementation: The How and What of Building Multi-tiered Systems of Support

by Sarah V. Arden and Sarah Benz

RTI: Framing the National Conversation

Almost 15 years have passed since the concept of Response to Intervention (RTI) was formally included in the reauthorization of the Individuals with Disabilities Education Act (IDEA, 2004). When it was conceptualized, RTI sought to address the increasing number of students being identified as having learning disabilities (LD) and the special education service delivery models available to them, especially those services focused on reading difficulties (Arden, Gandhi, Zumeta Edmonds, & Danielson, 2017; Gersten, Jayanthi, & Dimino, 2017). Since that time, Local Education Agencies and State Education Agencies across the nation have implemented RTI into their districts, schools, and classrooms. In almost all places, RTI systems have been expanded to include multiple school initiatives into one multi-tiered system of support (MTSS). Regardless of the model, current reviews indicate virtually every state in the U.S. offers some level of guidance around the use of RTI/MTSS (Bailey, 2018).

The prevalence of RTI, however, should not be equated with universal acceptance of the practice. In fact, since its introduction into legislation the concept has been widely debated. Critics of the framework often argue that RTI functions as a wait-to-fail model, delaying assessments for special education eligibility (Reynolds & Shaywitz, 2009) and causing academic difficulties to compound over time. Proponents of RTI fundamentally discount the idea that the model is intended to delay the provision of supports for students who demonstrate academic difficulties. These advocates point to an extensive body of research on the components of RTI, which is compelling and clear: when educators systemically collect data on student progress and subsequently use that data to inform their intervention selection and instructional delivery, the likelihood of positive student outcomes is increased (Fisher & Frey, 2011; Fuchs, Fuchs, & Compton, 2012; Vaughn, Denton, & Fletcher, 2010).

We interpret these findings to suggest that we focus on the importance of implementation; specifically using an applied framework of implementation that guides organizations (e.g., schools, districts) to leverage their current strengths as they work toward integration of large-scale initiatives like RTI/MTSS (Duda, Fixsen, & Blase, 2013). The research clearly tells us that the *how* of implementing a new practice is important along with the *what* (i.e., the practice) being implemented (Arden et al., 2017; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005;

Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004). Implementation happens in stages: exploration, installation, initial implementation, full implementation (Fixsen, Blase, Metz, & Van Dyke, 2013) with each stage having the potential to impact ease and success of the subsequent stage (Durlak & DuPre, 2008; Fixsen et al., 2005). For a complex, school-wide framework like RTI, focusing on the *science* of implementation is critical to its success.

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Unfortunately, following the steps offered by the research may not ultimately lead to full implementation. This result is likely because many educators are never taught the nuances of systems change, making implementation feel uncomfortable and haphazard. Systems change requires strong leadership to guide shifts in adult behaviors, a practice that has proven to be extremely challenging (Fullan, 2010). What follows are considerations to guide educators in the beginning stages of RTI implementation and suggestions for those who would like to strengthen their existing systems. We suggest that by focusing on the science and the art (i.e., the how and the what) through assessing readiness, changing adult behaviors, considering infrastructure, creating a climate of data fluency, and providing access to students with disabilities, RTI can operate as a successful and effective framework for providing intervention to all students in need of support.

Where to Begin: Assessing Readiness of the Current System

Implementation of a framework like RTI or MTSS often requires district and school leaders to think creatively about how their current system functions, which may be new and feel overwhelming. To that end, implementation science is designed to build on the existing strengths of the organization.

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Abbreviations

DBI: Data-based individualization

LD: Learning disabilities

MTSS: Multi-tiered system of support

NCII: National Center on Intensive Intervention

RTI: Response to Intervention

For example, perhaps the district or school has a strong model for supporting coaches, or efficient and timely processes for gathering and utilizing data. RTI should then not be framed as a new initiative. Rather, RTI integrates all school initiatives and educational best practices. In accordance with implementation science, it is essential that schools and districts take time to adequately prepare and plan during the initial stages of RTI implementation (i.e., exploration stage). They should spend time exploring, creating staff acceptance, and planning for a comprehensive systems change before they begin to implement the RTI framework and/or evaluate ways to improve their current RTI system (NCRTI, 2010). This can be accomplished as sites assess their readiness to implement.

Because RTI typically requires schools to make a comprehensive system change (NCII, 2013), it is important to use data from readiness assessments to determine which areas to direct implementation efforts. To assess their current readiness level, schools must gather data from several stakeholders. Data may consist of interviews conducted with:

- those knowledgeable about existing tiered systems
- stakeholders who represent all student groups, from administrators to special educators
- those individuals who are directly involved with implementation efforts.

An easy way to assess readiness is through use of customized interviews and observation protocols, along with corresponding rubrics. Triangulating all available data will create a holistic and focused plan to support RTI implementation. Table 1 provides examples of tools that can be used for assessing readiness.

Generally, three important components are essential to RTI implementation readiness and should be conducted during the *exploration stage*: staff acceptance, administrator commitment, and willingness to change key elements to ensure successful implementation (Fixsen et al., 2005; Pool, Johnson, & Carter, 2010). When evaluating a comprehensive systems change, there are several other questions to consider, including these listed below. Specifically, it is important to examine the **readiness** of the school infrastructure to support RTI implementation, the classroom infrastructure to use evidence-based

and high-leverage practices, a system for referring students for more individualized intervention, and the ability to change adult behaviors.

- How can I tailor RTI to fit my school?
- Do the key stakeholders understand and believe in what they are implementing? What are the attitudes of RTI within the school?
- What are the school and teachers' capacity to build an effective RTI framework?

One of the most critical elements in an RTI implementation plan is setting a clear vision and gaining the full commitment of all key stakeholders. Staff acceptance is also crucial in supporting a school infrastructure shift.

Changing Adult Behaviors

Changing adult behaviors can be an effective way to impact student outcomes. Professional development coupled with ongoing coaching is an efficient method that creates lasting change in adult behaviors (Fixsen et al., 2005; Joyce & Showers, 2002). While professional development increases content knowledge about RTI implementation, ongoing coaching will help to reinforce and sustain that content knowledge. RTI teams should provide professional development that includes ongoing coaching specifically on screening, progress monitoring, and data review, among others. Professional development materials and coaching supports are widely available through various RTI centers, including self-paced modules and webinars that provide guidance on operationalizing what we want adults to **do** as they implement. Even though the topics of the professional development and coaching may change, it is essential to provide ongoing learning and coaching through all of the phases of implementation (e.g., exploration, installation, initial implementation, full implementation) (Fixsen et al., 2013).

TABLE 1. Readiness Resources

Resource	Topics	Link
National Center on Response to Intervention (NCRTI) Implementer Series	Reviews essential components and implementation of RTI, specifically focused on planning for RTI and data-based individualization	https://www.rti4success.org/video/planning-and-first-steps-rti
NCRTI Implementation Integrity Rubric	Supports measurement of school-level fidelity of RTI implementation and can be used as a self-assessment for readiness	http://www.rti4success.org/resource/essential-components-rti-integrity-rubric-and-worksheet

* Table adapted from Arden & Pierce, 2018

Infrastructure Considerations: Installation and Early Implementation

After conducting readiness assessments, implementers should develop a comprehensive implementation plan to support a whole school infrastructure shift. This shift will take place during the *installation* and *initial implementation* stages. One of the most critical elements in an RTI implementation plan is setting a clear vision and gaining the full commitment of all key stakeholders (e.g., school-based administrators, instructional specialists, teacher leaders, and others who influence teacher practice) (Maier et al., 2016). Staff acceptance is also crucial in supporting a school infrastructure shift. Best practice indicates that leaders should share success stories for staff to see the value in this new system and to clarify the teachers' roles within RTI (Rinaldi, Averill, & Stuart, 2011). For example, who will support students in tier 2 and tier 3? Who will analyze next steps for students to continue to improve?

In addition, creating an RTI team can make RTI implementation easier and more effective. (Shepherd, 2006). Every school should have a team that is focused on whole-school implementation. Schools find it useful to begin their RTI implementation planning at least a year before implementation to develop a well-thought out comprehensive plan. Most schools find that they are already implementing several elements of RTI and just need to repurpose those teams or systems to fit within the RTI framework (Arden et al., 2016). The RTI team can serve the function of determining redundancy in systems and lead the efforts to reform a school infrastructure. Resources are widely available that are intended to help structure and organize the RTI team. Some useful resources for RTI teams include:

- sample agendas
- facilitator's guide
- note-taking templates
- progress monitoring tools and graphs
- fidelity checklists (For specific resources visit websites such as intensiveintervention.org or rti4success.org.)

Classroom infrastructure: Tier 1 consists of all students receiving high-quality core instruction that is differentiated to meet their needs. Often teachers may need to shift their classroom infrastructure to meet the students' needs, which often requires teachers to change their day-to-day practice to focus on data-based decision making and the impact of their instruction in ways they had not before. Teachers should a) implement evidence-based practices or high-leverage practices in their tier 1 core curriculum and b) know the system and data needed for a referral for tiered intervention.

Evidence-based practices: Use of evidence-based practices (e.g., explicit instruction, behavior specific praise, opportunities to respond) can help to ensure that students receive access to high-quality teaching instruction. When students do not respond to evidence-based instruction provided within an RTI system, further assessments are warranted. Specifically, if students do not respond to high-quality instruction in literacy, a formal clinical evaluation is needed to determine if the student has dyslexia (Lowell, 2017). There are several online resources for classroom teachers to learn more about specific

evidence-based practices, which include the What Works Clearinghouse website and the tools chart located on the National Center on Intensive Intervention (NCII) website.

Data drives the RTI system. From universal screening to progress monitoring, it is important to create a school climate that is data fluent.

Classroom teachers should also use universal screening data to monitor students in tier 1. After a universal screener has been administered, teachers identify students who appear to be at risk of academic failure or those who are not meeting grade-level expectations. This screening is typically done using a predetermined cut score that is based on national, state, or district norms. Teachers continue to monitor the progress of those students and if expected growth is not met, schools should have an established system of referral to tiered intervention.

Creating a Climate of Data Fluency

Data drives the RTI system. From universal screening to progress monitoring, it is important to create a school climate that is data fluent. Data fluency is defined as "a common understanding and shared language among general education staff, intervention providers, special education staff, and school leaders around the reasons behind data collection, the value of collecting varied types of data, and data analysis procedures that inform instructional decision making" (Arden & Pentimonti, 2017, p. 20). Central to data fluency is using progress monitoring data and making data-based decisions.

When a student starts receiving tier 2 intervention, progress monitoring occurs more often (e.g., bi-weekly). In tier 3, this frequency again increases to weekly progress monitoring, which allows the interventionist time to document the possible impacts of the intervention. If the progress monitoring data reflect a positive response to intervention, continue to provide the intervention while slowly releasing instructional supports. If the student is not making adequate progress, RTI teams must decide how to adapt or intensify the intervention.

RTI teams must build their confidence in making those key data-informed decisions. This requires teams to become fluent in evaluating progress monitoring data and making timely decisions about the response of the student to the intervention. Data-based decision making looks different at tiers 2 and 3; however, the core tenets remain. Teams continue to evaluate the data to determine the intervention response and make decisions accordingly. Data-based individualization (DBI) is a framework that relies on data-based decision making. DBI is a research-based process for individualizing and intensifying interventions through the systematic use of assessment data, validated interventions, and research-based adaptation strategies. DBI is used for students who continue to not make progress with evidence-based interventions. To learn more about the DBI process, visit the IRIS and NCII websites.

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Access for Students with Disabilities

During the exploration and buildout phase, students with disabilities often are overlooked. Students with disabilities must have access to all services that are offered through an RTI system. Instead of conceptualizing the special education referral and eligibility process as two separate systems, experts recommend that they should be integrated within an RTI framework that includes service delivery as well (Arden et al., 2017). Doing so will maximize resources and will create shared accountability between general and special educators. Additionally, streamlining these two processes will ensure students with disabilities have access to the all tiers of instruction, greatly enhancing their opportunity to make academic gains.

Supporting Implementation: Focus on Sustainability and Continuous Improvement

After an organization reaches the *full implementation* stage, the focus of the RTI team shifts to sustaining the new implementation processes and protocols. Sustainability is an important part of implementation and starts at the beginning of adoption or improvement of the RTI process. After sites engage in readiness activities and begin implementation, it is critical they focus on sustaining the practice with fidelity and continually improving their actions. Sustainability and continuous improvement efforts can be accomplished systemwide and by individual classroom teachers who want to evaluate their practice.

Providing educators with opportunities to practice implementation, receive feedback, and refine their practices will greatly increase the likelihood of sustainability with RTI practices.

Considerations for School Leaders and Teachers

Barriers: There are common barriers when implementing RTI that are very important for school leaders to recognize and address. These include, but are not limited to:

- time
- policies
- staff attitudes
- staff lack of knowledge
- issues associated with funding

Anticipating and addressing these hurdles will help to support effective and efficient implementation of practices that can be sustained. To overcome unforeseen implementation barriers, it is important to build the capacity of the school-based RTI team to engage in a problem-solving process to identify and address other implementation challenges that may arise.

Providing professional development opportunities with ongoing job-embedded coaching to teachers involved in the implementation process will help to address such issues. It is well documented that professional development alone does not provide enough support to spark adult behavior change (Joyce & Showers, 1995). Providing educators with opportunities to practice implementation, receive feedback, and refine their practices will greatly increase the likelihood of sustainability with RTI practices.

Fidelity: Schools with successful RTI systems are committed to evaluating their fidelity of implementation. Fixsen and colleagues (2005) stress that fidelity could be a major reason a program succeeds or fails. Fidelity means ensuring that implementation occurs in the manner and quality in which it was intended. When practices are implemented with fidelity, they are more likely to lead to improved student outcomes. Regularly evaluating the fidelity of RTI implementation can guide decision makers about where there are problems and how to strengthen their RTI system. Fidelity assessments are widely available online. Particularly useful is the interview tool on the NCII website. By using this interview tool, schools can quickly evaluate the fidelity of their current RTI system. The results from this review can be used to guide RTI planning for the following year. This interview can be conducted annually and can help to evaluate the specific strengths and weaknesses of the system. Schools find this to be a useful and quick assessment that yields rich data to assist in the implementation of RTI.

In summary, RTI is a complex framework that has the potential to have a positive impact on the way a school-wide system functions. And, implementing such a framework requires thoughtful practice, adult behavior change, ongoing embedded supports, and a focus on fidelity. Research indicates that many of the previous efforts to impact academic outcomes for students with disabilities or those at risk of academic failure have been less than successful in achieving those goals (Arden et al., 2017). We believe RTI holds the promise to achieve such outcomes but great care must be taken to implement it correctly. Implementation is not just a science, it is also an art.

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