1-1-2011

Response to Intervention in Middle School: A Case Story

Evelyn S. Johnson
Boise State University

Lori A. Smith
Cheyenne Mountain Junior High School

This document was originally published by Association for Middle Level Education (AMLE) in Middle School Journal. Copyright restrictions may apply.
Response to Intervention (RTI) is a framework that may lead to better teaching and learning through its integration of instruction, intervention, and assessment. An increasing number of states are moving forward with RTI initiatives across grades K–12. The research base for RTI, however, is currently limited to elementary settings. Although this research can inform implementation in the middle grades, the differences in school structure and operations at these levels mean RTI at the middle level will probably look different than it does at the elementary level. This article provides an overview of RTI, focusing, particularly, on how RTI is consistent with many of the characteristics of successful middle schools (National Middle School Association, 2010), and describes in detail the experience and outcomes of RTI implementation in one middle school where the second author serves as principal. The article concludes with a discussion of lessons learned and implications for other middle schools considering RTI implementation.

RTI and the middle school concept

RTI is most commonly depicted as a three-tiered model of service delivery (see Figure 1), in which Tier 1 represents the general instructional program, Tier 2 represents a level of intervention for students identified as at risk for poor learning outcomes, and Tier 3 typically represents special education. This model is based on a preventive sciences approach and illustrates RTI's focus on meeting the needs of all students through a school-wide process that integrates instruction, intervention, and assessment. The alignment of these processes promotes a stronger, more cohesive program of instruction that, ultimately, can result in higher student achievement (Mellard & Johnson, 2008).

RTI is not a one-dimensional approach to improving student outcomes. Rather, it provides an umbrella structure under which numerous evidence-based practices can be employed to improve student learning. RTI is a valuable model because of its potential for building the capacity of schools to meet the learning needs of an increasingly diverse student population. As described in the literature (see e.g., Fuchs & Fuchs, 2006; Johnson, Mellard, Fuchs & McKnight, 2006), RTI contains the following critical features:

- High-quality, evidence-based classroom instruction
- Universal screening of academics and behavior
- Progress monitoring of student performance

This article reflects the following This We Believe characteristics: Value Young Adolescents — Varied Assessment — Organizational Structures
• Implementation of research-based interventions at all tiers
• Fidelity checks on implementation

To date, scant research on RTI models at the middle school level exists. The need for successful models of RTI implementation at this level is great, because the middle grades represent a crucial point in a student’s academic career, laying the foundation for successful completion of high school (Morris, Ehren, & Lenz, 1991). Middle grades students are confronted with a demanding curriculum no longer focused on the acquisition of basic skills; rather, they must rely on those basic skills for acquiring content knowledge (Deshler, Hock, & Catts, 2006; Deshler & Schumaker, 2006; Swanson, 2001).

Intervention models such as RTI can lead to improved outcomes for all students through the provision of a multifaceted support system for students who struggle with the demands of the curriculum. RTI can be especially effective at the middle level because the RTI framework is consistent with many of the characteristics of successful schools for young adolescents (National Middle School Association, 2010). In particular, RTI promotes and supports
• Diverse teaching strategies.
• Safe environments.
• Use of assessment.
• Multifaceted support systems.

• Collaborative leadership.
• Shared vision.

**RTI promotes diverse teaching strategies**
Because RTI stems from the preventive sciences, in which effective instruction and early intervention are seen as essential to reducing the number of students who struggle in or leave school, it focuses on developing a strong Tier 1 general education program. The goal is to provide general education instruction that is effective for the vast majority of students, with the guiding principle that 80%–85% of students should be able to meet grade level performance standards with Tier 1 instruction only. If performance data indicate that a significantly lower percentage of students are meeting standards, the first course of action the school needs to consider is improving the Tier 1 program.

Within Tier 1, teachers emphasize research-based curricular programs and instructional strategies that support improved achievement for all students. These include strategies such as differentiation, universal design, and embedded literacy strategies across content areas. For many middle level schools, RTI will provide a much-needed framework for staff discussions about improving the curriculum and instruction to provide multiple learning and teaching approaches that respond to student diversity (NMSA, 2010). These discussions are the first step in making improvements to the instructional program.
Bringing together the general education staff to discuss the horizontal (within a grade level) and vertical (across grade levels) alignment of the curriculum and to begin using common assessments to gauge the efficacy of the core instructional program can be accomplished through the use of collaborative leadership and the professional learning community (PLC) framework (DuFour & Eaker, 1998). These PLCs can then be charged with the task of researching, implementing, and testing evidence-based strategies that may meet the needs of an increasingly diverse student population.

**RTI creates a safe environment**

RTI is often conceptualized as the academic counterpart to school-wide positive behavior support (PBS) (Sugai & Horner, 1999). RTI and PBS share many common features including screening, differentiated instruction, progress monitoring, and interventions targeted to support student needs (Sandomierski, Kincaid, & Algozzine, 2007). As schools move forward with RTI implementation, they tend to recognize that many struggling students have a combination of issues requiring interventions that support both academic and positive approach to creating a school climate free from behavioral problems; but it recognizes that even when a proactive approach is implemented, a small percentage of students may require more intensive support to establish positive behavior, and an even smaller percentage of students may require specially designed services to assist in the management and development of positive behavior.

Emerging data on effective implementation of an RTI model that includes both academics and behavior is promising and represents one way that RTI helps develop a safe learning environment for students (e.g., Johnson & Smith, 2008; Windram, Scierka, & Silberglit, 2007).

**RTI uses assessment data**

In the RTI framework, assessment informs decisions about both the instructional programs and individual students. For example, the Tier 1 instructional program includes benchmarking and screening procedures that help determine whether the instruction is generally effective for most students. When too many students fail to meet performance benchmarks, it indicates that the Tier 1 program needs more scrutiny and adjustment.

"As schools move forward with RTI implementation, they tend to recognize that many struggling students have a combination of issues requiring interventions that support both academic and behavioral needs." \[
\]

behavioral needs. Both learning and behavioral problems often contribute to students’ academic difficulties, and this is particularly the case by the time students enter the middle grades (Kennelly & Monrad, 2007). Therefore, efforts to intervene for learning problems in the middle grades generally will be more effective when behavioral issues also are considered.

PBS is a model for addressing discipline and behavioral concerns that shares with RTI both the philosophical underpinnings of a prevention approach and a tiered system for implementation (Sugai & Horner, 1999). Like RTI, PBS is a tiered model of service delivery that stems from the prevention sciences and takes a proactive approach to improving school-wide behavior and discipline. PBS begins with a school-wide focus on establishing clear and consistent expectations for behavior with well-defined consequences. PBS is a

Additionally, screening procedures provide objective data that, when coupled with other sources of information such as attendance and engagement in school, help schools identify and target individual students who will likely not make sufficient progress in the curriculum without early intervention (Tier 2).

When comprehensive screening processes are employed, schools can analyze and evaluate these data to determine the most effective and needed interventions based on their school populations. For example, if a screening process identifies numerous students in need of support for reading, the school will have to investigate and adopt an intervention program for these students. Likewise, a school that experiences high absenteeism will want to consider interventions that keep students coming to school. Such assessment systems promote quality learning, because a school can respond to the needs of its students according to data.
The use of assessment data continues in the Tier 2 program. Most middle level schools will need a Tier 2 that provides a combination of academic and engagement interventions to support struggling students. Interventions should be research-based and aligned with student need. In Tiers 2 and 3, progress monitoring determines a student’s responsiveness to particular interventions. The frequent assessment of student performance and progress allows intervention specialists to make timely and individualized adjustments and decisions. For example, if a student is not making adequate progress, the intervention specialist can make adjustments to the instruction, either by trying a different strategy, increasing the frequency or duration of the intervention lessons, or a combination of these changes. Similarly, if a student is exceeding expected progress rates, the performance target can be raised (Hosp, Hosp, & Howell, 2007). Once students have achieved the desired performance levels and no longer need the intervention, continued monitoring of their performance in the general education program ensures that if they experience more problems, they will be “caught” and provided additional intervention (Fuchs & Fuchs, 2006).

Finally, progress monitoring data, when reviewed collectively, can provide an indication of the intervention’s overall efficacy. If assessment data show that few students make sufficient progress in the intervention, the school will need to consider whether the selected intervention is appropriate for meeting student needs, whether it is being delivered with fidelity, and whether intervention providers require professional development.

**RTI requires a multifaceted support system**

Tier 2 will likely present the most significant change to existing middle level school structures under an RTI framework. Because Tier 2 can be resource intensive, it is essential to ensure that the selected interventions are effective and multifaceted to support struggling learners. Interventions must be evidence-based and must support the Tier 1 curriculum. For example, to provide support to students who are struggling readers, a layered approach to intervention that consists of a targeted reading intervention combined with accommodations and literacy strategies in the Tier 1 content areas will be more successful in promoting student success than a reading intervention alone. Similarly, interventions that address social behavior, study skills, strategy use, and organizational habits can promote the behaviors that support improved academic achievement.

**Finally, special education (Tier 3) can become a focused program that provides research-based interventions for students with disabilities who may need specially designed instruction. Special education is an integral component of an effective RTI system. Special education instruction is aligned with general education standards, but delivered through specially designed instruction and frequent progress monitoring toward individualized education goals (Johnson, Smith, & Harris, 2009).**

**Collaborative leadership and shared vision**

Successful implementation of RTI requires more than a technical adaptation in which a school adopts each of the specific components of the model. Like other school reform initiatives, RTI requires schools to make a cultural shift (Elmore, 2000). Success with RTI requires strong leadership efforts to cultivate the necessary conditions for implementation (Fuchs & Deshler, 2007).
These include:

- Sustained investments in professional development programs.
- Engaged administrators who set high expectations for adoption and proper implementation.
- District-level support to hire teachers who embrace the principles of the initiative.
- Willingness to stay the course.
- Willingness to redefine roles and change the school’s culture. (Fuchs & Deshler, 2007)

Numerous authors write about the importance of effective leadership in determining the success of an education initiative (see e.g., Elmore, 2000; Fullan, 2001). Where RTI differs from other initiatives is in its comprehensive yet focused design. RTI is comprehensive in that it integrates multiple research-based practices under a single system. It is focused in the sense that all stakeholders share a guiding vision of improved academic outcomes for all students. All interventions are implemented with the sole purpose of helping to improve student learning. At the middle school level, RTI has the potential to help schools build capacity for meeting the needs of all students and to lead to better teaching and learning through an integrated system. An initiative with such ambitious goals will require leadership that helps create a shared vision and empowers school personnel to be engaged in the process.

The challenges of RTI implementation are significant, but manageable. There are many moving parts to manage within an RTI framework. Perhaps more significant than the technical changes, however, is the necessary culture shift in the school’s day-to-day operations (Spillane, Reiser, & Reimer, 2002). Overcoming implementation challenges cannot happen without strong leadership efforts. The building principal must understand the system and must develop short- and long-term goals and procedures to make implementation successful. The principal must keep staff focused on the school’s goals of improved student achievement and must manage resources. The principal must lead the integration of evaluation systems that allow the school to collect, analyze, and evaluate data at the individual student level, at the classroom level, at the grade level, and at the building level—and then prioritize actions to follow. RTI demands a lot from a building leader, but the rewards can be significant. To illustrate, the following case story presents a description of the implementation of RTI in one middle level school.

**RTI implementation: A case story**

Cheyenne Mountain Junior High (CMJH) is located in Colorado and has been in the process of RTI implementation for the last six years. The school has a population of 650 students in grades seven and eight. The population of students is primarily White (81%), with 10% Latino, 5% Asian, 3% Black, and 1% Native American. CMJH began the RTI process by developing a plan to meet district requirements. Although the school had been a high-performing school for several years, a demographic shift brought more students who were from areas of lower socioeconomic status and who were English language learners (ELLs). The school staff was not prepared to meet the challenges of working with the ELL population and collectively agreed that changes to their instruction and support systems would be needed to effectively meet the needs of all students.

CMJH began the RTI implementation process by examining its assessment data to determine the areas most in need of support. The school had recently adopted a school-wide PBS model, so staff were familiar...
with a tiered service delivery approach. By reviewing current assessment data disaggregated by population, the staff realized that many students did not have strong reading skills. Although they also noted that math was an area of concern, they initially focused on reading because of its impact across the curriculum. The staff identified reading support in all tiers as the priority and began with a simple screening mechanism, the Direct Reading Assessments (DRA), to identify students with reading levels below that of the general curriculum textbooks. Students who were one or two grade levels below received accommodations in the general education program (e.g., advanced organizers), while those with reading levels two grade levels or more below the reading level of their textbooks received a layered intervention that included accommodations in the general education program plus targeted support to improve their literacy skills.

In year two, school staff focused on improving the Tier 1 instructional program. Specifically, they recognized the need to adopt multiple learning and teaching approaches that would support a diverse student population (NMSA, 2010). Through the use of a PLC framework, the principal formed content-area teams and charged them with researching approaches to improve instruction, paying particular attention to differentiation (Marzano, Pickering, & Pollock, 2001), the development of common assessments (McTighe & Emberger, 2006), and the integration of universal design strategies (Rose & Meyer, 2002). Differentiated instruction began with the use of clickers—technology that allows students to answer questions throughout a lesson so that teachers receive immediate feedback and can determine when they might need to provide more clarification of a particular concept.

In year three, staff continued to expand and develop the use of differentiated instruction to include choices for projects and assignments and an increased use of multimedia to present new information. In response to student performance data, the school began to expand the range of Tier 2 interventions and developed a more comprehensive system of screening. The core RTI team recognized that its current screening approach, which used grade-level reading ability, failed to identify students who were not engaged in school or who were struggling in other areas, such as math and science. With the guidance counselors and building leaders of the elementary schools that feed CMJH, school staff developed a comprehensive screening tool that provided a picture of the whole child. In addition to screening academic areas, information on student behavior and engagement was also collected.

**RTI requires schools to make a cultural shift.**

In year four, CMJH adopted progress monitoring measures in both reading and math and AIMSweb, an assessment and data management system designed specifically for RTI. Through this process, the school soon realized that it needed to build a larger bank of interventions to meet the needs of students, because assessment data indicated that students in Tier 2 were not making the anticipated gains. In addition to reading and writing, interventions that focused on science, motivation, and study skills were included as a part of the Tier 2 system.

In years five and six, the school developed a comprehensive data-based evaluation system that allowed all efforts to focus on ways to improve teaching and learning. Professional development for teachers was integrated with the RTI system, and accountability data were used on multiple levels to improve student outcomes. At the individual student level, data informed individual adjustments in instruction and intervention. At the class and school levels, data helped staff review and identify areas in need of attention or support. Through the period of RTI implementation, the school maintained its status as a high-performing school, even as its student demographic was shifting dramatically. Student achievement in reading and writing, as measured by the Colorado state performance assessments, increased, and discipline issues decreased significantly. Perhaps most important, the school recognized that continuous school improvement is always a work in progress, and it decided to continue to refine its RTI process.
The RTI model at CMJH today

As demonstrated by CMJH’s story, RTI implementation is a multiyear commitment (Mellard, Byrd, Johnson, Tollefson, & Boesche, 2004), which is important for schools to recognize as they begin the implementation process. The current model of RTI in place at CMJH is described below, organized according to each of the intervention tiers.

Tier 1. The school relies primarily on differentiated instructional strategies in the Tier 1 program. Instructional strategies have evolved from the simple use of clickers to check for understanding to a focus on developing literacy across the content areas. To address the literacy concerns of their students, the staff has a common writing process and assessment that is used across content areas. To address additional reading concerns, the staff has integrated the explicit teaching of non fiction comprehension strategies across the content areas, including KWL charts (Ogle, 1986), advanced organizers (Swanson & Deshler, 2003), and exit slips (Berglund & Johns, 2002). To address behavior concerns, the school still follows a school-wide PBS model (Sugai & Horner, 1999), in which expectations for behavior are clearly defined and positively supported throughout the school. This helps the school create a safe environment for all students. Additionally, the school offers homework support as a Tier 1 support for students who are struggling to complete assignments but do not require more intense intervention.

To determine if a student requires targeted support to be successful in the Tier 1 program, CMJH uses a combination of information that may include district reading scores, students’ prior assessment scores, and teacher ratings on study skills and behavior issues. The counselors are the data reviewers, and they flag students who have at least one indicator on their screening sheets. After the initial screening, they review the data to determine which students should be placed into what types of intervention for support.

Students who receive a Tier 2 intervention are monitored through the use of appropriate measures (e.g., progress monitoring measures of oral reading fluency) to determine if the intervention is working. Benchmark measures on all students are collected three times per year. Data include performance on common assessments, discipline referral information, performance on screening measures, and teacher ratings. Screening and progress monitoring results are reviewed and analyzed during monthly team meetings.

Tier 2. CMJH offers a number of interventions for their students in need of additional academic and behavioral support. These include:

1. IMPACT class. IMPACT is a semester course incorporating behavioral modification and experiential learning for retained students and students at risk of failing. The overall goals are to improve academic and behavioral motivation.

2. Literacy Lab. This intervention is an intensive remedial reading course (semester- or yearlong) for students with poor reading and literacy performance. This intervention includes the use of Rewards (Archer, Gleason, & Vachon, 2000) and explicit strategy instruction for comprehension (Allen, 2004). Students who require writing support also receive instruction through the Step Up to Writing program (Auman, 2003).

3. Organizational Skills. This semester-long elective focuses on homework completion, test-taking skills, and a variety of study skills and self-advocacy skills using the Study Skills curriculum (Carter, Bishop, Bixby, & Kravits, 1999).

4. Science 8C. This is an intensive, modified, yearlong science course for students with low performance in science, as measured by state assessments and prior course grades.

Tier 3. Intervention at Tier 3 is highly specialized for individual students. It may include placement in an inclusion class, one-on-one time with individual teachers, classroom observations, or behavioral assessments. Tier 3 is still an area of intervention improvement at CMJH. The school is investigating appropriate intensive intervention strategies in math, science, and English.

Program evaluation at CMJH. To date, much of the research on RTI implementation beyond the elementary level focuses on descriptions of the process, without much data to support its efficacy. The power of RTI, however, is the measurable impact it can have on student outcomes. What have been the results at CMJH? Figure 2 provides a summary of some of the more notable outcomes achieved since beginning the RTI process.
As is depicted in Figure 2, data support the overall efficacy of the RTI model. The school continues to see high percentages of students meeting state performance benchmarks in every subject, as measured by the Colorado State Assessment Program (CSAP), with the exception of math. Additionally, the number of students who receive Tier 1 supports has grown. This indicates the entire staff’s commitment to providing support to all students. The most notable areas of improvement are in the reduction of students receiving failing grades and in the lower number of discipline referrals. This data also emphasizes the ongoing process of RTI implementation; CMJH needs to focus its efforts on improving core math instruction and providing math interventions to improve in this area. The collection and analysis of assessment and other data are critical components in the RTI process that will inform these decisions.

**Conclusion**

RTI is a promising framework consistent with the characteristics of successful middle level schools (NMSA, 2010), and it can be a key to educating young adolescent learners in diverse school settings. Though RTI will look different as it is implemented in various school contexts, the case of Cheyenne Mountain Junior High presented here can give school leaders a sense of what to expect as they adopt this model.


**Extensions**
Identify at least one academic area (e.g., reading, mathematics) in which your school might screen students to begin the RTI process. Visit the National Center on Response to Intervention's website (www.rt4success.org) to access materials and information that can help your school get started with RTI implementation.

---

**References**


National Middle School Association. (2010). *This We Believe: Keys to Educating Young Adolescents*. Columbus, OH: Author.


---

**Evelyn S. Johnson** is an associate professor of special education at Boise State University in Boise, ID. E-mail: evelynjohnson@boisestate.edu

**Lori A. Smith** is the principal at Cheyenne Mountain Junior High School in Colorado Springs, CO. E-mail: smith@cmhs12.org

---

32 Middle School Journal January 2011