

Definition

Response to Intervention (RTI) is a multifaceted school improvement approach aimed at positively impacting the educational outcomes of all students. While descriptions of RTI components vary slightly in the literature, researchers and practitioners agree on a number of core components that are foundational to an RTI approach: 1) high quality, research-based classroom instruction for all students, 2) universal screening of academics and behavior to determine which students may need closer monitoring or intervention, 3) progress monitoring in core classroom instruction and in instructional tiers to track student progress and adjust instruction based on data, 4) instructional supports through increasingly intensive tiers, 5) fidelity measures for systematically assessing the effectiveness of instruction and interventions to inform adjustments and professional development, and 6) the use of data to inform educational decision-making

A primary feature of RTI is the early identification, through universal screening, of students in need of academic and/or social supports. Students are served in a tiered system of interventions: services increase in intensity and frequency depending on the level of the student's needs. A student's response to the supports and intervention provided in any given tier is monitored frequently in order to determine the efficacy of the support or intervention. Data from such assessments are examined regularly to inform educational decisions about the student's instruction and support needs. In deciding how to best support a student, school teams review individual student data using a standard protocol procedure (using validated interventions), a systematic problem-solving model (developing plans to target student needs based on regular review of progress data), or a combination of the two.

Data obtained through this process may also be used in identifying students who have learning disabilities. The Individuals with Disabilities Education Act of 2004 authorized the use of RTI as an alternative to the discrepancy model of identifying students with learning disabilities. In an RTI approach, educators work to ensure that the instruction students receive is research-based and responsive to students' individual needs before considering referral for special education.

Rationale

RTI warrants serious attention for its potential as a comprehensive vehicle for broad-based school improvement activities. First and foremost, it prompts schoolwide attention to the quality of instruction and social supports provided to all students. Schools implementing RTI realize that the core instruction and related services provided to students are the foundation on which a tiered program of intervention

and supports rests. RTI provides a mechanism for regular discussions among practitioners on instruction, curriculum, and other school factors that influence student performance. Knowing how students are progressing allows staff to make timely adjustments to instruction to maximize instructional time.

Finally, schools that have implemented an RTI model also report decreases in the numbers of students referred to student support teams. This decrease is often attributed to improvements in the general education setting. In addition, schools report that using an RTI approach enables them to be more efficient and effective in addressing the needs of students who are identified as requiring support. Numbers of comprehensive special education evaluations have been observed to decline following implementation of an RTI model.

Research Base

A number of positive outcomes have been observed in schools that have implemented an RTI model of student support. Practitioners report an overall improvement in their instructional practices (McMaster, Fuchs, and Compton, 2005). One of the most significant research findings is that the components and procedures used in an RTI approach lend themselves to a better understanding of instructional quality and informed decision-making (Mellard and Johnson, 2008).

Numerous studies point to the effectiveness of RTI for preventing reading problems (Mellard, et al., 2004). Twenty years of research have shown that in order to become a successful reader, a student must master at least five essential skills (phonemic awareness, phonics, fluency, vocabulary, and comprehension). At the core of an RTI model of support is an examination of a school's literacy instruction relative to these five essential skills.

The components of RTI are also supported by research. Research indicates that earlier intervention—made possible by universal early screening—results in a higher likelihood of success and has greater cost efficiencies. Students at risk for learning difficulties can be identified and receive appropriate interventions (Vaughn and Fuchs, 2003; Vaughn, Linan-Thompson, and Hickman, 2003). By examining screening data it is often also possible to identify grade-level and perhaps schoolwide instructional and curricular deficiencies. Progress monitoring provides data by which to judge instructional effectiveness. These data can yield information that accurately ranks a student's performance, both within her peer group and on the school's curriculum (Speece and Case, 2001).

A strong research base supports the efficacy of data-based decision-making over other less empirical methods of judging the effects of educational initiatives and interventions. Curriculum-based measurements (CBM) serve as a central data source in an RTI model. CBMs have strong predictive

validity for identifying students at risk for challenges with skill acquisition. In addition, CBMs have been shown to be extremely sensitive to student growth, which makes them excellent tools to assess student growth in response to interventions designed to improve classroom instruction. The use of formative assessments such as CBM has been shown to result in improved classroom instruction.

There are early indications of decreasing numbers of children found to be eligible for special education services in the category of specific learning disability in schools using an RTI approach. This outcome has been linked to the early identification of students at risk of falling into this disability category and to improved general education instructional strategies (Compton, Fuchs, Byrant, 2006). Using RTI as an alternative approach for identifying learning disabilities addresses problems associated with the use of an IQ achievement discrepancy model. These problems include disproportionate representation of minority students in special education; inconsistent application of discrepancy determination formulas; the exclusion of “low average” students from special education support; questionable reliability and validity of assessment tools; and its characterization as a “wait to fail” model. Researchers have questioned the IQ discrepancy model for its poor or undemonstrated reliability and validity (Fletcher, et al., 1998; Lyon, 1996; Lyon, et al., 2001; Siegel, 1989, 2003; Stage, Abbot, Jenkins, & Berninger, 2003; Stuebing et al., 2002; Vellutino, Scanlon, & Lyon, 2000). Controlled studies examining how schools and districts might use RTI in determining disabilities demonstrate that RTI should be pursued as a viable option for identifying students with learning disabilities (Speece, et al., 2003; Vaughn et al., 2003).

Snapshot of a school

Wolcott Elementary is a small rural school in Vermont with limited resources. Through their principal’s leadership, the teachers established a professional learning community to examine and strengthen their literacy instruction. After studying the research on reading instruction, the principal and teachers set out to address literacy skills by integrating evidence-based practices into their instruction. Wolcott teachers are trained in administering and scoring curriculum-based measurements and now use them to screen all students. Students who don’t meet grade-level expectations are targeted for support. Their parents are informed of their child’s performance and offered materials they can use with their child at home.

Initial support is provided in the classroom through differentiated and or supplemental instruction. Student progress is monitored weekly; students showing insufficient growth are referred to the school’s Educational Support Team, comprising teachers, the building administrator, and a reading specialist. The team uses a problem-solving approach to identify and respond to students’ needs.

Students are supported through tiered interventions characterized by greater intensity and frequency and by more targeted interventions. Student progress in interventions is monitored to ensure that the selected intervention and instruction schedule increase academic growth.

Through this process, the building principal has developed expertise as a literacy instructional leader, working to ensure quality and consistency of instructional practice. She has developed an observation tool and schedule to assure that all teachers are providing effective instruction in the areas agreed upon by the professional learning community. This observation process is encouraged by the teaching professionals as a way for them to receive feedback regarding their efforts to implement an improved reading curriculum.

Snapshot of a district

The Vail Unified School District in Tucson, Arizona, began using an RTI model at the school level, then worked over three years to implement it across the district. A rapidly growing district, Vail has averaged 12% student growth over the last ten years. Sixty percent of teachers have fewer than three years of teaching experience in the district and 100 to 120 new teachers are hired every year. The special education population is about 12%. In the summer of 2002, state assessment results indicated a systemic problem with math instruction. A newly formed professional learning community posed three questions: What do we expect students to learn and know? How will we know what students have learned? How will we respond to students who are not learning? The community determined to place strong intervention programs in the school day for all students regardless of ability.

The Vail RTI model, a general and special education collaborative effort, is called STEEP (Screening to Enhance Equitable Placement). It is a three-tiered, protocol-based model for all students that emphasizes effective instructional practice. A scientifically based model, it uses guided and independent practice with progress monitoring on each skill in reading writing, and math. Students within the bottom 16% and in the frustrational range received targeted intervention that is tracked daily. If students fail to respond to that intervention, further evaluation determines if they are eligible for special education.

Student skills are identified, formative assessments designed, and students placed in proficiency levels. Then 30 minutes of intervention are provided and a specialist added to each grade level, with the aim of moving each student up one proficiency level by the end of the year. All students are included in this model and receive enrichment or re-teaching every day, based on ongoing assessments. If students are not ready to move on, they receive tutoring, Saturday instruction, or other targeted intervention.

Vail's results have been remarkable and educators now regularly visit the district to learn from their efforts. After three years of RTI work, the district had compelling data to share:

- Students meeting or exceeding standards increased from 45% in 2002 to 98% in 2005;
- The systemic math problem no longer exists;
- A system for assuring on-going improvement was designed and implemented; and
- The special education population decreased from 12.6% to 12%, with K-8 children identified as Specific Learning Disabled decreased by 3%.

References

- Fletcher, J. M., Francis, D. J., Shaywitz, S. E., Lyon, G. R., Foorman, B. R., & Stuebing, K. K. (1998). Intelligent testing and the discrepancy model for children with learning disabilities. *Learning Disabilities Research and Practice, 13*, 186-203.
- Lyon, G. R. (1996). Learning disabilities. *The Future of Children: Special Education for Students with Disabilities, 6*, 56-76.
- Lyon, G. R., Fletcher, J. M., Shaywitz, S. E., Shaywitz, B. A., Wood, F. B. & Schulte, A. (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 and Progressive Policy Institute.
- Mellard, D. F., Deshler, D. D., & Barth, A. (2004). SLD identification: It's not simply a matter of building a better mousetrap. *Learning Disability Quarterly, 27*(4), 229-242.
- Mellard, D. F., & Johnson, E. (2008). *RTI: A practitioner's guide to implementing Response to Intervention*. Thousand Oaks, CA: Corwin Press.
- Siegel, L. S. (1989). IQ is irrelevant to the definition of learning disabilities. *Journal of Learning Disabilities, 22*(8), 469-78.
- Siegel, L. S. (2003). IQ-discrepancy definitions and the diagnosis of LD: Introduction to the special issue. *Journal of Learning Disabilities, 36*(1), 2-3.
- Speece, D. L., & Case, L. P. (2001). Classification in context: An alternative approach to identifying early reading disability. *Journal of Educational Psychology, 93*, 735-749.
- Speece, D. L., Case, L. P., & Molloy, D. E. (2003). Responsiveness to general education instruction as the first gate to learning disabilities identification. *Learning Disabilities Research & Practice 18* (3), 147-156.
- Stage, S. A., Abbott, R. D., Jenkins, J. R., & Berninger, V. W. (2003). Predicting response to early reading intervention from verbal IQ, reading-related language abilities, attention ratings, and verbal IQ-word reading discrepancy: Failure to validate discrepancy method. *Journal of Learning Disabilities, 36*, 24-33.
- Stuebing, K. K., Fletcher, J. M., LeDoux, J. M., Lyon, G. R., Shaywitz, S. E., & Shaywitz, B. A. (2002). Validity of IQ-discrepancy classifications of reading disabilities: A meta-analysis. *American Educational Research Journal, 39*, 469-518.

Vaughn, S., & Fuchs, L. S. (2003). Redefining learning disabilities as inadequate response to instruction:

The promise and potential problems. *Learning Disabilities Research & Practice, 18*, 137-146.

Vaughn, S., Linan-Thompson, S., & Hickman, P. (2003). Response to instruction as a means of identifying students with reading/learning disabilities. *Exceptional Children, 69*(4), 391-409.

Vellutino, F. R., Scanlon, D M., & Lyon, G. R. (2000). Differentiating between difficult-to-remediate and readily remediated poor readers: More evidence against the IQ-achievement discrepancy definition of reading disability. *Journal of Learning Disabilities, 33*, 223-238.

Resources

Batsche, G., Elliott, J., Graden, J., Grimes, J., Kovalski, J., Prasse, D., Reschly, D., Schrag, J., & Tilly, W. D. (2005). *Response to intervention: Policy considerations and implementation*. Alexandria, VA: National Association of State Directors of Special Education, Inc.

The Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004) made important amendments to the federal special education law regarding the identification of students with learning disabilities. This essential resource provides policy and implementation options for RTI, grounds RTI in law and policy predating IDEA 2004, and guides the reader through the array of implementation issues.

Bender, W. N., & Shores, C. (2007). *Response to intervention: A practical guide for every teacher*. Thousand Oaks, CA: Corwin Press.

This overview of key RTI concepts includes guidelines for accountability practices that benefit students in inclusive classrooms. Presenting the three tiers of RTI techniques, the authors demonstrate how general and special education teachers can use research-based interventions to individualize instruction, monitor individual student progress, and implement strategies to meet the needs of all students.

Bergeson, T., Heuschel, M. A.; Harmon, B., Gill, D. H., Alig, P., & Middling, T. (2006). *Using Response to Intervention (RTI) for Washington's Students*.

This book is designed to explain the RTI principles and components, provide guidelines for decision-making in a RTI system, recommend how to use RTI data to identify specific learning

disabilities, answer common questions, and identify additional resources that school districts may use in developing their own RTI systems.

Brown, J. E., & Doolittle, J. (March 2008) *A cultural, linguistic, and ecological framework for response to Intervention with English Language Learners*. Washington, DC: U.S. Department of Education.

Looking through the lens of culturally responsive practice, the authors consider how best to implement RTI to provide equitable educational opportunity for English Language Learners.

Griffiths, A.-J., Parson, L., Burns, M., VenDerHayden, A., & Tilly, W. D. (2007). *Response to intervention: research for practice*. Alexandria, VA: National Association of State Directors of Special Education, Inc.

This annotated bibliography of RTI research complements NASDSE's best-selling book, *Response to Intervention: Policy Considerations and Implementation*.

Mellard, D. F., & Johnson, E. (2008). *RTI: A practitioner's guide to implementing response to intervention*. Thousand Oaks, CA: Corwin Press.

Written by leading special education researchers with the National Research Center on Learning Disabilities and the University of Kansas, this comprehensive yet accessible reference offers administrators practical guidelines for launching RTI in their schools. Highlighting the powerful role that RTI can play in prevention, early intervention, and determining eligibility for special services, the authors cover the three RTI tiers, schoolwide screening, progress monitoring, and changes in school structures and individual staff roles.

Website Resources

IDEA website at <http://idea.ed.gov/>

National Center on Student Progress Monitoring at www.studentprogress.org

Research Institute on Student Progress Monitoring at <http://www.progressmonitoring.net/>

Regional Resource and Federal Center Network (RRFC) at

http://www.rrfcnwork.org/component/option,com_frontpage/Itemid,1/

New England Comprehensive Center at <http://www.necomprehensivecenter.org/>

National Research Center on Learning Disabilities at www.nrclid.org

IRIS Center for Training Enhancement at <http://iris.peabody.vanderbilt.edu/>

The Access Center at <http://www.k8accesscenter.org/index.php>

Center on Instruction at <http://www.centeroninstruction.org/>

Intervention Central at <http://www.interventioncentral.org/>

IDEA Partnership Grant at <http://www.ideapartnership.org/>