



Research Summary on Response to Intervention

There is little research available on the effectiveness of Response to Intervention (RTI) for children prior to kindergarten. However, there is a growing body of evidence on the effectiveness of RTI for school-age students, particularly for students in kindergarten through Grade 3.

This document summarizes information from several research syntheses on RTI for school-age studentsⁱ. Two practice guides sponsored by the Institute of Education Sciences (IES), U.S. Department of Education, summarized the research evidence on the effects of RTI for improving readingⁱⁱ and math instructionⁱⁱⁱ in the early primary grades. In addition, a meta-analysis of 24 studies examined the size of the effects of RTI for students and schools (Burns, Appleton, & Stehouwer, 2005). Another IES practice guide summarized the research on behavior problems and offered concrete recommendations to help teachers address the most common types of behavior problems encountered among their students^{iv}.

How were RTI practices defined and implemented?

Across all studies, RTI practices generally consisted of instruction (foundational instruction and tiered interventions) linked to formative assessments of student performance in reading or math. Studies focused on reducing behavior problems addressed multiple levels including the individual student, the classroom environment, and the school or system as a whole. In some studies, the interventions were implemented by researchers, whereas in other studies, the interventions were implemented by classroom teachers.

What were the characteristics of the participants and settings?

Generally, the participants in the studies were students and classroom teachers in elementary and middle schools in the U.S. Most of these students were not identified as having a disability, but some were identified as having a learning difficulty in reading or math. Some of the studies on behavior problems were conducted with students with identified behavioral or emotional disabilities.

What were the key findings regarding the effectiveness of RTI for improving teaching and learning?

Overall, research findings show that RTI is effective when implemented in the early grades, that it can improve learning outcomes in reading and math, and that it can reduce the need for special education. The use of formative assessments can have a positive effect on teachers' instructional decision-making. There is strong evidence for the effectiveness of tiered interventions in reading and math for students identified as at-risk for learning

Handout 7.1

difficulties in these areas. To address behavior problems, there is strong evidence that teachers should modify the classroom environment to help students stay on-task, teach students appropriate behaviors, and manage consequences to reinforce these “replacement” behaviors.

Bottom line

A growing body of research indicates that RTI is effective for addressing learning difficulties among school-age children, with strong evidence for the effectiveness of targeted reading and math interventions for this age group. Additional research has identified specific classroom practices that can reduce problem behaviors among school-age students. Additional research is needed to guide the use of tiered approaches to support academic learning and social-emotional development in children prior to kindergarten.

References

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- Gersten, R., Compton, D. L., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., et al. (2008). *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. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>
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ⁱ These syntheses were not limited to research using randomized, controlled experiments, and included studies that used correlational and single-subject designs.

ⁱⁱ The number of studies cited to support each conclusion ranged from 1-11.

ⁱⁱⁱ The review provided examples of studies to support each conclusion but did not cite all studies supporting each conclusion.

^{iv} The review did not include all of the studies used to draw conclusions for each of the practices.