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 students[i]. 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 reading[ii] and math instruction[iii] 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

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

Burns, M. K., Appleton, J. J., & Stehouwer, J. D. (2005). Meta-analytic review of responsiveness-to-intervention research: Examining field-based and research-implemented models. *Journal of Psychoeducational Assessment, 23*(4), 381-394.

Epstein, M., Atkins, M., Cullinan, D., Kutash, K., & Weaver, R. (2008). *Reducing behavior problems in the elementary school classroom: A practice guide* (NCEE #2008-012). 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

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/

Gersten, R., Beckmann, S., Clarke, B., Foegen, A., Marsh, L., Star, J.R., et al. (2009). *Assisting students struggling with mathematics: Response to intervention (RTI) for elementary and middle schools* (NCEE 2009-4060). 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.

Emotional Literacy Skills: Identifying and Understanding Emotions

Adapted from CSEFEL WWB Training Kit #21. Fostering Emotional Literacy in Young Children: Labeling Emotions

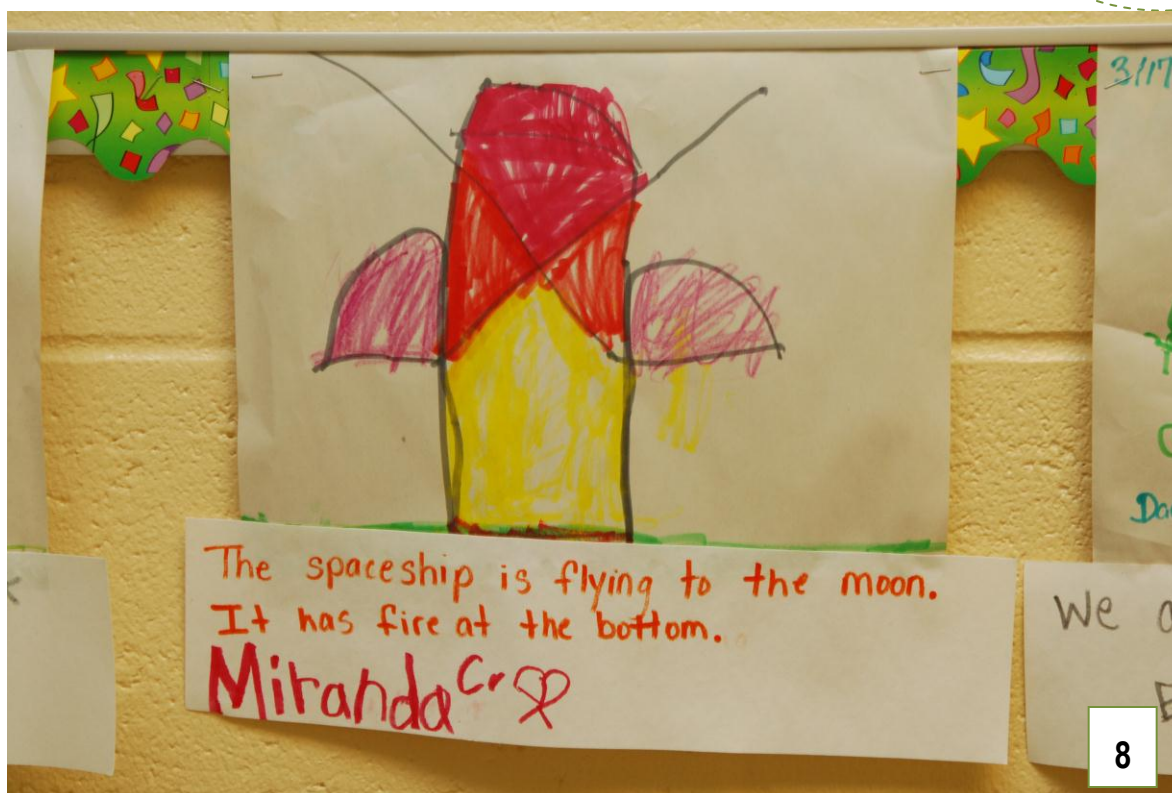# Creating a Rich Learning Environment

The spaceship is flying to the moon.
It has fire at the bottom.
Miranda C.

Policy Advisory
Tiered Instruction

Specific federal policies addressing the use of tiered instruction with children prior to kindergarten are not available at this time. However, the Office of Special Education in the U.S. Department of Education issued informal guidance in 2010 on the use of tiered instructional approaches, referred to as Response to Intervention or RTI in this document. For school-age students in kindergarten through Grade 12, there is specific guidance available on the use of tiered instruction. This information can be found within multiple provisions of the Individuals with Education Act (IDEA) and a position paper published by the Council for Exceptional Children (CEC). For more information about each of these sources, click on the links below.

OSEP Informal Guidance on Use of RTI for Three-to-Five Year-Olds

The OSEP guidance addressed several issues regarding the use of RTI with three-to-five year-old children. This statement addressed the referral process for determining whether children are eligible for special education services, along with parental rights in this regard. The guidance is available at http://www2.ed.gov/policy/speced/guid/idea/memosdcltrs/osep11-07rtimemo.pdf.

Council for Exceptional Children (CEC) Position Statement on Response to Intervention
In 2008, CEC released a position statement on RTI. The position statement describes the key components of RTI and provides general guidelines for classroom implementation and system supports.
The CEC position statement is available here:
http://www.cec.sped.org/AM/Template.cfm?Section=CEC_Professional_Policies&Template=/CM/ContentDisplay.cfm&ContentID=11116

IDEA Provisions Addressing RTI and Positive Behavioral Supports (PBS)

IDEA contains multiple provisions that address the use of RTI in public education. These provisions note that school districts are allowed to use RTI as an alternative method for identifying students with learning disabilities, and indicate that students can be determined to have a specific learning disability on the basis of how they respond to research-based interventions. In addition, PBS was referenced multiple times within IDEA as a way of improving the quality of behavior supports provided to all students enrolled in public education, with a particular focus on the importance of this for students with disabilities. These provisions on PBS address a range of issues from funding this approach, to the use of suspension and expulsion rates in relation to evaluating its effects, to professional development and the role of teachers in implementing this approach in classrooms.

References

Individuals with Disabilities Education Act of 2004 (IDEA), Pub. L. No. 108-446. For complete source of information, go to http://idea.ed.gov/

Suggested Citation

CONNECT: The Center to Mobilize Early Childhood Knowledge. (2012). *Policy advisory: Tiered Instruction.* Chapel Hill: The University of North Carolina, FPG Child Development Institute, Author.

Foundational and Targeted Practices within Tiered Instruction

Tiered Instruction Related to Social Emotional Development

Foundational Social Emotional Practices

List the practice	Describe the practice	Do you feel you have enough information to implement this practice?	Where can you go for additional information?

Targeted Social Emotional Interventions/Supports

List the practice	Describe the practice	Do you feel you have enough information to implement this practice?	Where can you go for additional information?

Tiered Instruction Related to Academic Learning

Foundational Academic Learning Practices

List the practice	Describe the practice	Do you feel you have enough information to implement this practice?	Where can you go for additional information?

Targeted Academic Learning Interventions/Supports

List the practice	Describe the practice	Do you feel you have enough information to implement this practice?	Where can you go for additional information?