

Solution Tree | Press

RTI in Math: Practical Guidelines for Elementary Teachers

By William N. Bender and Darlene Crane

Study Guide

This study guide is a companion to the book *RTI in Math: Practical Guidelines for Elementary Teachers* by William N. Bender and Darlene Crane. *RTI in Math* addresses the immediate need for information on how response to intervention (RTI) procedures might be implemented in primary and elementary mathematics.

This guide is arranged by chapter, enabling readers to either work their way through the entire book or to focus on the specific topics addressed in a particular chapter. It can be used by individuals, small groups, or by an entire team to identify key points, raise questions for consideration, assess conditions in a particular school or district, and suggest steps toward implementation of RTI in mathematics.

We thank you for your interest in this book, and we hope this guide is a useful tool in your efforts to create a strong mathematical foundation in your school or district.

Copyright © 2011 by Solution Tree Press

Chapter 1

The RTI Process in Elementary Mathematics

1. What is *response to intervention* (RTI)? List the three tiers associated with RTI, and describe the distinctions among them. What percentages of students are projected to be reached within each tier?
2. Does your state department of education present a model of RTI on their website? Do their guidelines for RTI in mathematics differ from implementation in reading? How so?
3. What are the five foundational principles of the RTI process? Which do you currently employ, and what value would each hold for your instructional setting? How often do most RTI models suggest students should be screened to ensure they are meeting end-of-year or grade-level benchmark goals?
4. Describe the relationship between RTI progress monitoring and learning disability diagnosis. What is the primary purpose of RTI? How should progress monitoring influence instructional decisions?
5. What two reasons do the authors list for advocating for RTI procedures in mathematics? What are the different ways that difficulty in mathematics can manifest in students? Have

any of these difficulties impacted your students? If so, how? What instructional adjustments have proven beneficial to your students?

6. How do the authors propose to protect the general education teacher's time when RTI procedures are introduced? Which of these approaches do you think would work best for your school or district?

Chapter 2

Tier 1 Mathematics Instruction: A Critical Component of RTI

1. Why do the authors not consider Tier 1 an intervention? What are two challenges to effective Tier 1 instruction? Does your school or district have the resources available to meet these challenges? If not, how can you gain access to those resources?
2. Define *universal screening*. How early should this screening process begin? Has your school or district used the *Test of Early Mathematics Ability*? What might be the benefits of this test? What assessment tools does your district have available? What benefits do they provide as compared to those discussed in the text?
3. Define *benchmarking* in regard to RTI procedures. Which benchmarking assessments do the authors suggest? Which look the most interesting to you, and why?
4. How do differentiated instruction and scaffolding advance Tier 1 instruction in primary and elementary mathematics? Do you use these methods? How does scaffolding move the responsibility of learning from the teacher to the learner? What purpose does this shift have?

5. Review the ten explicit tactics for Tier 1 instruction and describe your level of engagement with each. Which tactics would you feel most comfortable using? Why? What effective tactics would you add to the list?

Chapter 3

RTI Procedures for Number Sense and Early Mathematics Skills

1. What are the effects of having less research on RTI in math as opposed to RTI in reading?
2. How does the definition of *number sense* differ between neuroscientists and educators?
What does neuroscience say about early number recognition and early mathematics readiness skills? Does this contradict or confirm what you thought about the developing mathematical mind?
3. What are some options for Tier 2 and 3 interventions for young children? How do these programs strengthen number sense in children?
4. What can you tell from the sample response to intervention documentation forms throughout this chapter about how Clayton Elementary is helping Tony learn? Does your school or district use such forms? How might you suggest your district alter these forms to meet your needs?
5. What issues should a school or district address when beginning RTI in early math?
Which of these seems the most challenging for your school? Which seems the easiest?

Chapter 4

RTI Procedures in Elementary Mathematics

1. What are the three mathematics intervention curricula that the authors explore in regard to elementary mathematics? How might a computer-based curriculum work in your classroom or school?
2. Do your students struggle with automaticity of multiplication facts? How have you dealt with the issue? What does the case study in this chapter suggest?
3. What is a mathematical *choke point*? How do teachers at Eastonalle Elementary deal with Traci's choke point with finding common denominators? What choke points are evident in your setting? What instructional strategies might you use to support them?
4. After a student has not shown positive response to two separate and increasingly intensive interventions, what happens next?

Chapter 5

RTI and Problem Solving

1. What is the general intention of story problems in mathematics? In what ways do you use story problems in your curriculum? List the general steps a student should take to solve a story problem.
2. How do U.S. story problems compare to those from Russia or Singapore? How can we improve the way we use story problems in the classroom in order to build real-world skills students can draw on in everyday life?
3. What are some strategies for enhancing student engagement with story problems? How might project-based learning be used?
4. List some options for general education teachers to use when assessing problem-solving skills. How might the clinical mathematics interviews work for your school or district?
5. Once a student has been moved into Tier 2 or 3 intervention for problem solving, what are some strategies teachers can use? What do the acronyms RIDD and STAR stand for?

Chapter 6

PLC Support Strategies for School- and Districtwide

RTI Procedures in Mathematics

1. Fill out a response to intervention planning grid. Is the information easy to find? Does any of it surprise you? How much of this information did you know before filling out the grid?
2. What impact can professional learning communities have on RTI procedures? What are some initial team activities for RTI implementation in mathematics?
3. Explore the Web-based resources the authors list to support RTI implementation in mathematics. Which of these are you already familiar with? Which are you interested in using in your work toward RTI?