



RESPONSE TO INTERVENTION

***The Two Models of RTI:
Standard Protocol and
Problem Solving***

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*A supplemental resource to:
Responsive Instruction: Refining Our Work of Teaching All Children
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If you have questions about this document, please contact the Virginia Department of Education, Office of Student Services at 804-786-0720. This document complements and extends information disseminated by the Virginia Department of Education in an earlier document entitled, **Responsive Instruction: Refining Our Work of Teaching All Children Virginia's "Response to Intervention" Initiative**. The earlier document can be accessed the following Web site:

http://www.doe.virginia.gov/VDOE/studentsVCS/RTI/guidance_document.pdf.

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All models of RTI consist of a common set of characteristics that include a multi-tiered approach to intervention (Marston, Muyskens, Lau, & Canter, 2003), universal screening of all students, (Fuchs, 2003; Gresham, 2002), team structures to manage and analyze data collected through the process, and progress monitoring of student performance to assess the impact of interventions (Marston, et al., 2003). At the heart of RTI implementation is the use of small group instruction delivered to students according to their skill needs (Vaughn, Linan-Thompson, & Hickman, 2003). Two approaches have emerged as the methodology for developing these small group interventions – the standard protocol approach (Standard Protocol; RTI-SP) and the problem-solving approach (RTI-PS).

Defining the Model Differences

Typically, standard protocols involve the delivery of evidence-based, multi-component programs with strong research bases focused on specific skill areas. The intervention has well-defined steps for implementation when, if followed as prescribed, have a high probability of producing improved outcomes for students. Standard protocols are designed to be structured and explicit in defining the needed steps for implementation and are able to be delivered to small groups of children. Groups are identified by examining the general nature of student problems and matching them to the particular protocol. For example, in reading one would examine outcomes of student performance on universal screening measures and determine which students needed more focus in fluency and which in comprehension. The group to which the student is assigned would then be matched to that protocol. Because the steps of the intervention are well defined, the evaluation of the integrity of implementation is straightforward and can be determined by establishing a checklist of the critical steps for

implementing the intervention. Following each step of the defined protocol is essential so that one is sure that the intervention is delivered as it was designed.

Standard protocols can be developed as packaged commercial programs designed to focus in an area of the student's problem identified through the universal screening process. For example, reading programs such as *Read Naturally* (2004) or *The Six-Minute Solution* (Adams & Browne, 2003), are designed to focus primarily in the area of developing fluency. Other programs, such as *Soar to Success* (Cooper, Boschken, & Pistoichini, 2006), are aimed more at developing vocabulary/comprehension, while programs such as *Ladders to Literacy* (O'Connor, Notari-Syverson, & Vadasy, 2005) are focused more on the development of phonemic awareness and alphabetic principle. Third party evaluation of such packaged, multi-component programs offers support for their empirical base (e.g., Florida Center for Reading Research, 2007). In addition to packaged programs, RTI-SP applications might include structured partnered reading activities, direct instruction of phonological or phonics skills, or reinforcement of skills through computer programs (Case, Speece, & Molloy, 2003; VanDerHeyden, Witt, & Gilbertson, 2007). A key feature of RTI-SP is that standard instruction/intervention protocols are used without an in-depth analysis of the deficit skill and are delivered in moderate sized groups (6 to 10 students) (e.g., Peer-Assisted Learning Strategies; Fuchs, Fuchs, Mathes, & Simmons, 1997; McMaster, Fuchs, Fuchs, & Compton, 2005).

In contrast to RTI-SP, RTI-PS is a process with an emphasis on individualized interventions that derive from the analysis of instructional/environmental conditions and skill deficits (Tilly, Reschly, & Grimes, 1999). RTI-PS is guided by a systematic analysis of instructional variables that is designed to isolate target skill/sub-skill deficits and shape

targeted interventions (Barnett, Daly, Jones & Lentz, 2004). As illustrated in Figure 1 in the appendix, common to all RTI-PS models is a 4-step process that systematically conceptualizes a problem, analyzes factors that contribute to the problem, implements targeted or individualized interventions to address the problem, and evaluates the effectiveness of the interventions (Allen & Graden, 2002). RTI-PS ensures that the developed intervention is well matched to the individualized needs of the targeted student. Examples include the functional assessment of academic skills (Daly, Lentz, & Boyer, 1996; Daly, Martens, Hamler, Dool, & Eckert, 1999; Daly, Witt, Martens, & Dool, 1997) and Curriculum-Based Evaluation (Howell & Nolet, 2000). The model has a long history of implementation in programs such as Heartland Area Education Agency 11 in Iowa (Ikeda, et al., 2007), Minneapolis Public Schools (Marston, Lau, & Muyskens, 2007), and the St. Croix River Education District in Minnesota (Bollman, Silberglitt, & Gibbons, 2007).

Advantages/Disadvantages of the Models

The primary advantage of RTI-SP is that the use of a standardized approach to intervention assures opportunity for quality control (Fuchs, Mock, Morgan, & Young, 2003). Students are grouped based on a general area of concern, (i.e., area of skill in need of intervention in reading is primarily fluency or vocabulary/comprehension, phonemic awareness/alphabetic principle) and can be delivered to fairly large groups (up to about 10) with high degrees of fidelity. Another advantage of RTI-SP is the opportunity for a school to identify a small set of effective intervention strategies that can be applied broadly across many students who in general have the same skill needs. This offers a highly efficient use of resource allocation and allows larger numbers of students to be accommodated into tiered interventions. A third and related advantage is that schools may already have these materials

available and if not, bulk purchasing of materials can sustain many years of implementation. Additionally, because many teachers have already had extensive training with these protocols, they offer a built-in training resource for sustaining a specific protocol into the future as new teachers join the school staff. For example, as seen in Figure 2 in the appendix, this particular school using RTI-SP as its model, identified a specific set of instructional intervention packages on which staff had already been trained and the school already had purchased. As such, teams would identify students through universal screening measures whose needs in reading generally matched the areas primarily targeted by the packaged programs.

Despite these advantages, RTI-SP does present a challenge to addressing the unique learning needs of children who are experiencing more severe deficits (Fuchs, et al., 2003). Although an RTI-SP approach may match children's needs *in general* to the identified deficits, children with more complex and/or severe deficits may not fit easily into the general skill deficit areas of the protocol. For example, children may have needs that are more specific than broad concerns about fluency or phonemic awareness, and may need more individualized interventions that are clearly linked directly to diagnostic assessment data. Also, at times the selection standard protocol intervention may not be closely aligned to the core instructional program. In other words, the approach taught to students to address the student's problem area through the intervention protocol may not be the same as the way the skill is taught within the core reading program. As such, students may show some confusion in not being able to transfer learning from the intervention setting back to the core instructional program.

RTI-PS, when implemented with integrity, can be very effective in improving student learning (Burns & Symington, 2002). Indeed, many large scale models using the problem-solving process have demonstrated strong outcomes, such as the Heartland Area Educational

Agency 11 (Ikeda & Gustafson, 2002), the Minneapolis Public Schools (Marston, et al., 2007), Ohio's statewide Intervention-Based Assessment (Graden, et al., 2007) and the Screening to Enhance Equitable Educational Placement (STEEP) (Witt, & VanDerHeyden, 2007). The essential attributes of effective RTI-PS models are that they use a systematic problem analysis approach involving collaboration with various school personnel (e.g., special educators, remedial instruction staff, school psychologists, reading specialists), rely on principles of behavioral consultation, and focus on resource allocation questions (Burns, Wiley, & Viglietta, 2008). Although RTI-PS provides the potential for individualized instruction to address unique learning needs, the RTI-PS is susceptible to difficulties with implementation integrity, a significant obstacle to large-scale RTI implementation (Burns, Vanderwood, & Ruby, 2005). The advantages of RTI-SP are really the disadvantages of RTI-PS, and vice-versa. Essentially, there is a tradeoff between efficiency and effectiveness for individual students. Because RTI-SP groups students according to the presence of general areas in need of remediation (i.e., one subgroup of students who all show primary needs to build vocabulary and comprehension in reading, another subgroup of students shows primary needs in fluency building), the size of groups can be as large as eight or ten students for a Tier 2 intervention and perhaps as large as three to five students for a Tier 3 intervention. As such, there is more opportunity for efficiently impacting large numbers of students than in a RTI-PS model where interventions are specifically built around the individualization of student needs. In high-need schools, the use of larger groups for tiered interventions allows for substantially high numbers of students to be served compared to RTI-PS models.

At the same time as one gains efficiency, however, the lack of individualization can result in some students not being matched as closely to their specific identified needs as one

would prefer. As such, outcomes for students who have particularly difficult or entrenched problems may not be as strong as one would like, leading to a potential need for more intensive intervention for a larger group of students.

From a resource use perspective, RTI-SP can offer a very efficient use of personnel. For example, in one particular school using a RTI-SP model, a block of time was placed into the daily schedule for each grade designated as “tier time.” During “tier time,” all students were placed into an intervention group based on their data from universal screening. This included those students whose data indicated they were already at or above benchmark. During “tier time” all teaching staff for a grade, as well as assigned specialists, were devoted to delivering the specified instructional program for each specific group.

For example, from 10:30 – 11:00 on Monday, grade 2 consisting of 100 students had its “tier time.” In this particular school, there were four general education grade 2 classrooms. The school also had two reading specialists, two special education teachers, and two individuals hired as interventionists. Following universal screening, the grade had identified a total of 60 students who were at or above benchmark (Tier 1), a group of 25 students who were below benchmark but above the at-risk level (Tier 2), and 15 students who were already at high risk (Tier 3). During “tier time” on Monday, three benchmark groups of 20 students each were formed and assigned to three of the four general education teachers. During the 30-minute “tier time,” these teachers delivered instructional enrichment to the students, providing instruction that was well aligned to the general education curriculum but added opportunities to enhance the existing program. The 25 students assigned to Tier 2 were divided into three groups of eight or nine, one group focused on a standard protocol for reading comprehension (*Soar to Success*) and two groups emphasized fluency building (*Read Naturally*). One of the

general education teachers, one of the intervention specialists, and one of the reading specialists led these groups. The remaining 15 students at Tier 3 were divided into four groups of three to five students focused on basic development of phonics and basic skill development in reading. These groups were led by the two reading specialists, the interventionist, and a special education teacher. Students who had IEPs were always a part of the special education teacher's group as well.

As one can see from this design, a large number of students found to be in need of tiered instruction (40 percent of students in the grade based on universal screening data) can be accommodated through this model. Because all staff are deployed at the same time, there is a well-defined focus for the "tier time," which shifts across the day to different grades and different standard protocols.

Although RTI-PS models offer the advantage of individualization, the model does present a challenge for personnel resource allocation. Because interventions are more individualized, there are generally more interventions needed with smaller group size. This obviously requires a larger number of personnel to deliver the interventions and seriously challenges schools where the number of students in need of tiered intervention is substantial. For example, in the school discussed above, where 40 of 100 students in a grade fell below benchmarks, providing problem-solving interventions across 40 students would be impossible given the existing resources. As such, problem-solving models absolutely require that schools generally have 70 percent or more of their students already at benchmark in order to have sufficient resources to address problems at the more individual student level. In addition, under RTI-PS models, one would generally not provide any additional intervention to students

already at benchmark. Under RTI-PS models, it is common for the emphasis of tiered instruction to be placed primarily on those students not at benchmark.

Combining RTI-SP and RTI-PS

Given that the advantage of RTI-SP is the disadvantage of RTI-PS, a potential solution would be to consider using a combination of the two models in a RTI model. In particular, whereas RTI-SP is an excellent choice when at Tier 2, where you have a larger number of students at some risk of academic difficulties, RTI-PS may be a better choice at Tier 3 when you have fewer students who have intensive needs. Additionally, because students at Tier 3 have already shown a lack of response to intervention, the need for more focused and fine-tuned individualization of intervention through RTI-PS would be sensible to determine if students will respond to interventions. Of course, the resource allocation question will have to be considered to make sure that the school has sufficient staff to implement RTI-PS at Tier 3.

In truth, the combining of a Standard Protocol and Problem Solving model, if possible to implement in a school, is likely to lead to the greatest responsiveness of students. The hybrid approach to RTI would offer the best of both worlds for students – clear and well designed standard protocols in which the large majority of students at some risk would respond and a more finely tuned, focused intervention built on the identified individual needs of students who are in need of more intensive instructional interventions.

Concluding Remarks and Key Questions

Both RTI-SP and RTI-PS are strong approaches to implementation. Regardless of which model is chosen, there is a need for schools to be strategic about their decisions. Important questions must be asked to decide which model or combination of models will work

best for them. As schools consider each of these questions, the RTI model that works best for the school's context will become clear.

- Do I have sufficient personnel resources to deploy the model?
- What will be my training needs based on the model I select?
- Will I have a problem with “fairness” if I only provide tiered instruction to those students at Tier 2 and 3?
- Am I concerned that without individualization of intervention to student need, I will not be able to effectively address the needs of my students?
- Can the schedules be altered to accommodate the needs of a standard protocol approach?

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Figure 1. Example of a problem-solving model (from Heartland Area Education Agency - <http://www.nrld.org/symposium2003/grimes/grimes3.html>)

Figure 1

Problem Solving Process

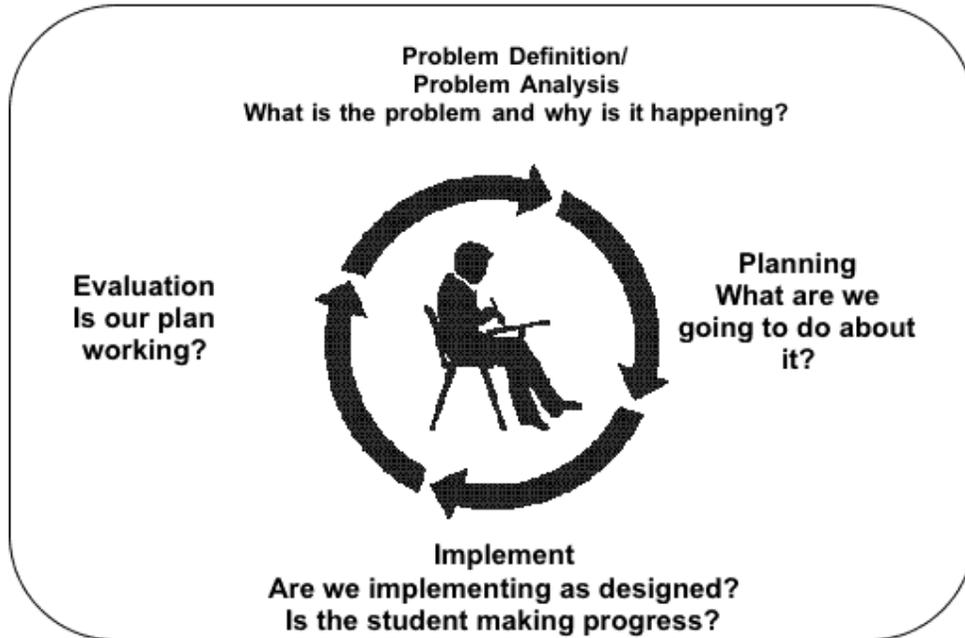


Figure 2. Example of intervention programs selected by one school for tiered interventions.

RTI Tier	Curriculum Component	Grade Level	
		K – 2	3 - 6
Tier 1	Houghton Mifflin <i>Invitations to Literacy</i>	X	X
	<i>Open Court Phonics</i>	X	
	Compass Learning	X	X
Tier 2	Breakthrough to Literacy	X	
	<i>Open Court Phonics</i>	X	
	Soar to Success		X
Tier 3	Foundations	X	
	Breakthrough to Literacy	X	
	Wilson Reading		X
	Soar to Success		X