

Implementation of Response to Intervention

A Snapshot of Progress

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This article provides a snapshot of how all 50 states are progressing with the development and implementation of response-to-intervention (RtI) models 1 year after the final regulations for the Individuals with Disabilities Education Act were passed. Data were collected through a review of existing state department of education Web sites and conversations with representatives in each state department of education. Information related to RtI model type, implementation status, professional development, criteria for eligibility, and specific features of individual state RtI models are presented. Findings indicate that most states are in some phase of RtI development, although approaches vary widely throughout the country. Implications for research and practice are discussed.

Keywords: *response to intervention; identification; classification; policy*

The 2004 reauthorization of the Individuals with Disabilities Education Improvement Act made, for the first time, the use of response to intervention (RtI) acceptable as an alternative means of identifying students with specific learning disabilities (SLD). Although RtI is not mandated, states are now authorized to decide if there is a more effective way to identify SLD (Bradley, Danielson, & Doolittle, 2005). As a result of this legislation, many states have begun to quickly move toward implementation of some form of RtI.

Why RtI?

In 1977, when SLD was initially included as a disability category in special education, guidance from the U.S. Office of Education stated that discrepancy between student IQ and achievement should be used as the main criteria for determining SLD (Mercer, Jordan, Allsop, & Mercer, 1996). Because each state is responsible for setting its own final regulations, large variability in defining this discrepancy resulted (Reschly & Hosp, 2004; Semrud-Clikeman, 2005). Another problem is that students with SLD often go unidentified until the upper grades and are left struggling academically until the discrepancy becomes significant enough to warrant eligibility (Bradley et al., 2005). Some feel that this has resulted in the promotion of a “wait to fail” attitude (Fletcher et al.,

2002). In addition, the use of the discrepancy model alone provides limited information (i.e., difference between two scores) that does not explicitly assist educators to develop plans for remediation (Semrud-Clikeman, 2005). Finally, the number of students identified for SLD services has increased 200% since 1977, creating concern in the field about misdiagnoses (Vaughn, Linan-Thompson, & Hickman, 2003), such as false positives (including overidentification of those with high IQs and average achievement), and false negatives (including underidentification of those with lower IQs and below-average achievement) (Kavale, 2005; Semrud-Clikeman, 2005). The immense dissatisfaction with the IQ-achievement discrepancy model has been the primary reason for the debate, research, and discussion about the definition and identification of students with SLD (Johnson, Mellard, & Byrd, 2005). In response to these growing concerns, the RtI model emerged as an alternative (Vaughn & Fuchs, 2003).

Although it may appear that RtI is being promoted by some as the most effective way to diagnose SLD, concerns regarding this approach to SLD identification have been expressed as well. One criticism is that RtI excludes unexpected learning failure as a part of identifying SLD because the presence of average or above-average cognitive ability would not be documented (RtI eliminates general cognitive ability as a decision-making factor in

eligibility), and as a result, the designation of SLD could be given to those who may simply be slow learners (Kavale, 2005). In addition, RtI models include intervention with only modest empirical validation, and results represent nonresponsiveness and not the presence or absence of underachievement (Kavale, 2005). Another criticism is that RtI will not be able to differentiate SLD from other disabilities such as mental retardation, emotional or behavioral disorders, and attention-deficit/hyperactivity disorder (Mastropieri & Scruggs, 2005). Despite this disagreement in the field, RtI is now an option for states to consider when developing their eligibility regulations for SLD.

What Is RtI?

Although research on RtI dates back to the 1960s (Bender & Shores, 2007), the process is still a new concept to many educators and parents. Based on the definition by the National Research Center on Learning Disabilities (NRCLD), RtI can be defined as student-centered assessment models that use problem-solving and research-based methods to identify and address learning difficulties in children (Johnson, Mellard, Fuchs, & McKnight, 2006). Core components of RtI include high-quality classroom instruction, universal screening, continuous progress monitoring, research-based interventions, and fidelity of instructional interventions (Bradley et al., 2005; NRCLD, 2007b).

For RtI to be a viable method for determining the existence of an SLD, an RtI model must be formally in place throughout a school. Because RtI models have a heavy emphasis on ensuring that a strong core curriculum and instruction are occurring first before intervening with individual students, this model affects schools very differently than previous special education eligibility procedures for determining SLD. As a result, not only can RtI be used by a school as a means to identify students with SLD, but once a model is in place, RtI can also be used to predict at-risk students and to intervene with all students who have academic and behavioral difficulties (NRCLD, 2007b).

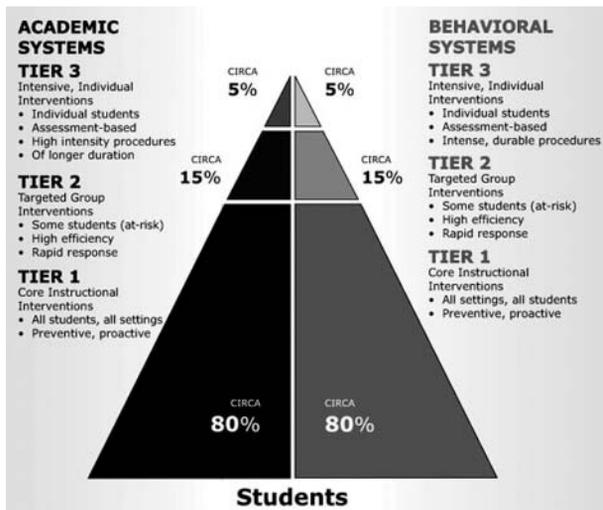
RtI models. RtI models are similar in that they involve (a) application of scientifically based interventions of increasing intensity specifically targeted to the needs of individual students; (b) continuous monitoring to ensure that student progress is well documented; (c) the presentation of good opportunities for students to respond to instruction; and (d) required monitoring of the integrity of the interventions, referred to as *instructional fidelity* (Bender & Shores, 2007; NRCLD, 2007a). However, RtI

models differ in the number of levels, who is responsible for delivery of the interventions, and whether the process is viewed as a precursor to a formal evaluation for eligibility or if the process itself serves as the eligibility evaluation (D. Fuchs, Mock, Morgan, & Young, 2003).

Early literature on RtI emphasized two broad approaches, the problem-solving model and the standard protocol (Division for Learning Disabilities, 2007). In the problem-solving model, a student's deficits are addressed by implementing a research-based intervention that is specially designed for that individual student (Johnson et al., 2006). Typically in this model, decision-making teams that may consist of teachers, administrators, school psychologists, and parents follow a recursive four-step process: (a) define the problem, (b) plan an intervention, (c) implement the intervention, and (d) evaluate the student's progress (Bender & Shores, 2007; D. Fuchs et al., 2003). In the standard protocol model, students with similar difficulties (e.g., problems with reading fluency) are given research-based interventions that have been standardized and proven effective for students with similar difficulties for a predetermined amount of time (Johnson et al., 2006). These interventions may be selected from a bank of research-proven interventions based on school resources.

Tiered interventions. In both types of models, and with "hybrid combinations" of these two models, the instructional interventions of increasing intensity are often referred to as *tiers*. Although there is not one mandated model, a typical model might look like the one shown in Figure 1. The first tier, usually referred to as the *preventive tier*, involves whole-group instruction and universal screening. This tier is used for core instructional interventions for problems in basic skill areas such as reading, math, and/or behavior, and for more targeted interventions that general education teachers may undertake in the context of the general education class (L. S. Fuchs & Fuchs, 2007). This tier typically addresses the needs of approximately 80% of students (Bender & Shores, 2007). Tier 2, sometimes referred to as the *secondary intervention tier*, involves approximately 15% of the student population and utilizes targeted, small-group interventions (L. S. Fuchs & Fuchs, 2007). Here, students who are at risk are served with more intensive, research-based interventions with close progress monitoring in addition to the primary instruction received by all students. The third tier, or the *tertiary intervention tier*, includes the most intensive intervention setting and typically serves the needs of approximately 5% of the student population. In most models, this third tier involves high-intensity, longer

Figure 1
Example of the Three-Tier Model



Source: National Association of State Directors of Special Education (2005).

duration individualized instruction and frequent progress monitoring. Some models consider this tier a post–special education placement tier, whereas other models do not (Bender & Shores, 2007).

Where Are We Headed?

There are still many unanswered questions about RtI, and research is ongoing in this area. The NRCLD, for example, has several large-scale research projects occurring, including (a) two large-scale longitudinal studies to see how alternative approaches to identifying SLD may or may not affect who is identified; (b) focus groups consisting of parents, teachers, psychologists, special education directors, and principals who are helping design technical assistance strategies for adopting SLD identification models on a national scale; and (c) a collaborative project with the nation's six regional resource centers to identify sites that are effectively implementing RtI models (Deshler, Mellard, Tollefson, & Byrd, 2005). In the meantime, states are currently in the process of deciding not only how to interpret the new federal law in their own regulations but also how to put RtI models in place. The purpose of our review of the states was to explore how states are progressing with the implementation of RtI approximately 1 year after federal legislative guidelines were finalized. The following represents a snapshot of RtI implementation.

Method

Because most states are in a transition stage regarding RtI implementation, reviewing information posted for stakeholders in each state seemed to be the most efficient means to obtain disseminated information related to RtI. All data were collected between August and December 2007. For each of the 50 states, two independent researchers reviewed information posted on the state's department of education Web site related to RtI. Both researchers printed out relevant documents and recorded information on a common coding sheet. The coding sheet included categories for information related to (a) implementation, (b) model of implementation (e.g., standard protocol), (c) professional development, (d) learning disability eligibility regulations, (e) number of tiers, (f) domains of implementation, (g) intensity of implementation (frequency of instruction/instructional group size), (h) progress monitoring, (i) research-based practices, and (j) fidelity of instruction. Finally, phone and/or e-mail contact was made with a representative in each state department of education to verify the information that was collected. This contact was made primarily to ensure that the information located on the state Web site was both accurate and current. After reviewing all collected documentation, the researchers reconciled any discrepancies between coders by referring back to collected documents or by additional contact with the state department of education.

Results

The extent to which RtI is officially being implemented at the state level varies across the country. Fifteen states have currently adopted an RtI model and are implementing on large ($n = 9$) or small ($n = 6$) scales. In addition, 22 states are in a development phase, 10 states are providing guidance to schools and districts, and only 3 states are not currently in the process of developing a model or providing guidance regarding RtI or the information provided was unclear. General information for each of the 50 states is presented in Table 1.

State-initiated implementation is not, however, the only activity occurring in the country related to RtI. Many initiatives independent of state departments of education are occurring. In addition, many school districts throughout the country have taken the initiative to begin implementing RtI on their own.

Table 1
General Response-to-Intervention (RtI) Information by State

	RtI Model Development ^a	Model Type ^b	Implementation ^c	Professional Development ^d	Learning Disability Eligibility ^e
Alabama	SMID	ID	NS	NS	D/R
Alaska	NS	NS	NS	NS	D/R
Arizona	SM	H	LSI	E	D/R
Arkansas	SMID	ID	NS	P	D
California	G	BP	LC	E	D
Colorado	SMID	ID	PI	P	D/R
Connecticut	SMID	ID	T	P	D/R
Delaware	SM	H	LSI	E	R
Florida	SM	H	SSI	E	D/R
Georgia	SM	H	LSI	E	R
Hawaii	SMID	ID	NS	NS	D/R
Idaho	SMID	ID	T	E	D/R
Illinois	G	BP	T	E	D
Indiana	SMID	ID	NS	E	D
Iowa	SM	PS	LSI	E	D/R
Kansas	SM	H	LSI	E	D/R
Kentucky	SMID	ID	NS	P	D
Louisiana	SM	H	SSI	E	D/R
Maine	G	BP	T	P	D/R
Maryland	G	BP	LC	P	D/R
Massachusetts	G	BP	LC	E	D/R
Michigan	SMID	ID	PI	E	D/R
Minnesota	SMID	ID	PI	E	D
Mississippi	SMID	ID	NS	E	D/R
Missouri	G	BP	LC	E	D/R
Montana	SMID	ID	PI	E	D/R
Nebraska	SM	PS	SSI	E	D/R
Nevada	SMID	ID	NS	NS	D/R
New Hampshire	SMID	ID	PI	E	D/R
New Jersey	NS	NS	NS	NS	D/R
New Mexico	SMID	ID	NS	P	D/R
New York	SMID	ID	PI	P	D/R
North Carolina	SM	PS	SSI	E	D/R
North Dakota	G	BP	LC	E	D/R
Ohio	SM	H	LSI	E	D/R
Oklahoma	SMID	ID	PI	P	D/R
Oregon	SM	SP	LSI	E	D/R
Pennsylvania	SM	SP	SSI	E	D/R
Rhode Island	SMID	ID	T	E	D
South Carolina	NS	NS	NS	NS	NS
South Dakota	SMID	ID	PI	E	D/R
Tennessee	G	BP	LC	E	D
Texas	G	BP	LC	E	D/R
Utah	SM	H	LSI	E	D/R
Vermont	SMID	ID	PI	E	D/R
Virginia	G	BP	LC	E	D
Washington	SM	H	LSI	E	D/R
West Virginia	SM	H	SSI	E	D/R
Wisconsin	SMID	ID	T	E	D
Wyoming	SMID	ID	PI	E	D/R

a. G = guidance only from state; SM = state model developed; SMID = state model in development; NS = not specified/unclear or not implementing.

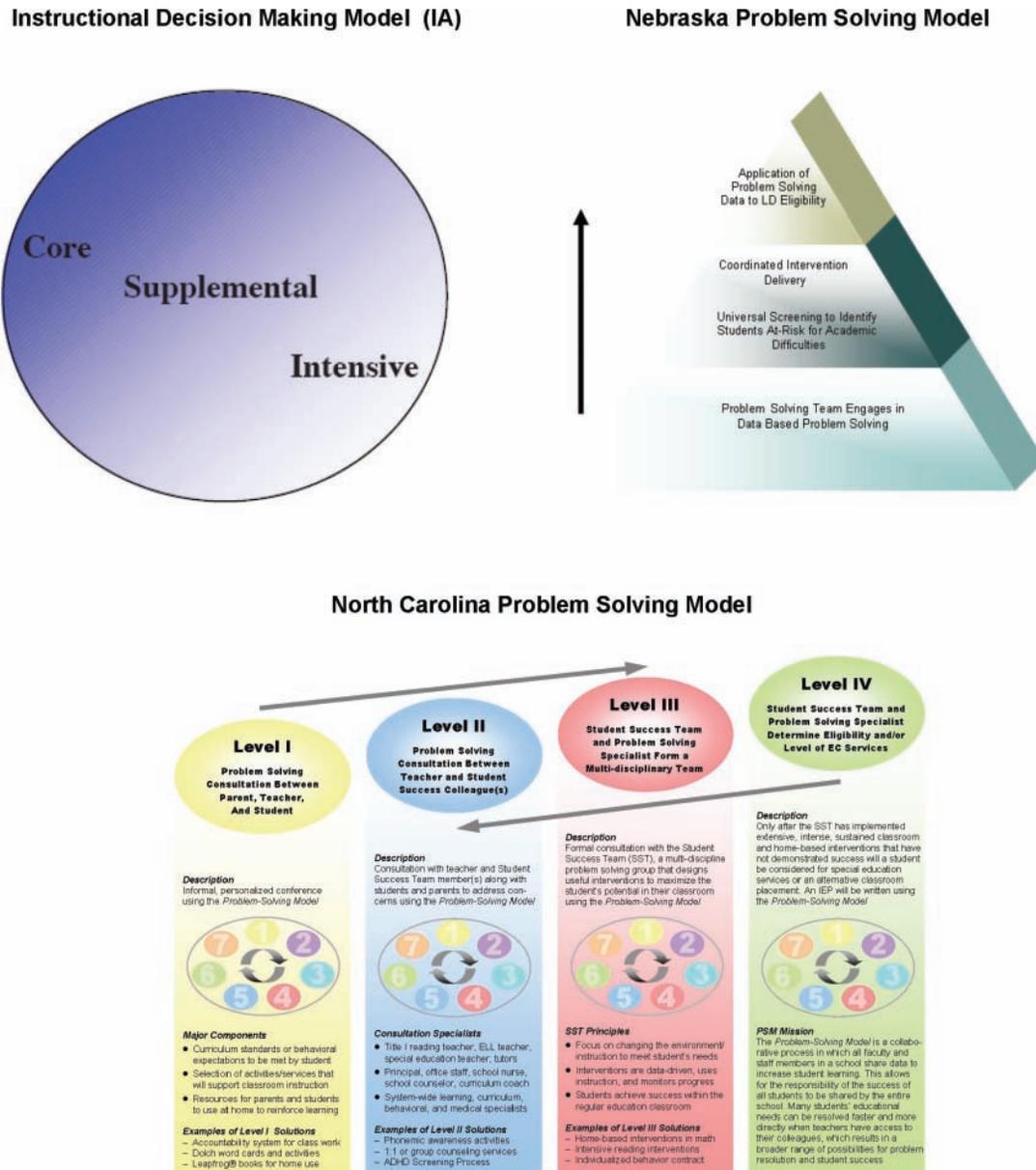
b. BP = best practice information on one or several models; H = hybrid of standard protocol and problem solving; ID = in development; PS = problem solving; SP = standard protocol; NS = not specified/unclear.

c. LC = local control of implementation; LSI = large-scale implementation; PI = pilot implementation; SSI = small-scale implementation; T = target date for implementation; NS = not specified/unclear or not implementing.

d. E = existing; P = planned; NS = not specified/unclear.

e. D = discrepancy only; D/R = discrepancy and/or RtI; R = RtI only; NS = not specified/unclear.

Figure 2
Example of Problem-Solving Models



Source: Iowa Department of Education (2007); Daly, Kupzyk, Bossard, Street, and Dymacek (in press); and Burke County Public Schools, NC (2005).

How Are States Progressing With RtI Implementation?

States with adopted models. Of the 15 states that have adopted an RtI model, the majority consist of models that blend problem-solving and standard protocol approaches ($n = 10$), models with a problem-solving approach ($n = 3$), and models with a standard protocol approach ($n = 2$). All of these states have created their own RtI models or modified existing models from the research literature.

Problem-solving models vary both in the number of steps in the process and how they are depicted (see Figure 2). For example, Iowa uses a four-step problem-solving process: (a) define the problem, (b) develop a plan, (c) implement plan, and (d) evaluate. Nebraska follows a five-step problem-solving process: (a) problem identification, (b) problem analysis, (c) goal setting, (d) plan implementation, and (e) plan evaluation. North Carolina’s model incorporates a seven-step problem-solving process: (a) describe the performance profile,

(b) develop an assessment plan, (c) analyze the assessment plan, (d) generate a goal statement, (e) develop an intervention plan, (f) implement the intervention plan, and (g) analyze the intervention plan.

Although the core concepts of the standard protocol model were very similar, some states chose to be more specific or to place more emphasis on specific areas. For example, Oregon and Pennsylvania are very similar in their overall approaches to RtI and the fact that it is ultimately used as part of an evaluation to determine if a child is eligible as a student with a learning disability. Oregon, however, is specific in that children in Tier 2 receive small-group instruction for a minimum of 30 minutes per day, whereas Pennsylvania's model leaves it open for specialists to assist with instruction in the general education classroom, using small groups as necessary. Likewise, although Pennsylvania only mentions the issue of instructional fidelity, Oregon has specific checklists to be completed where instructors are rated on the level of fidelity when implementing interventions.

Hybrid models incorporate components of both problem-solving and standard protocol approaches. Some states allow individual schools to choose problem-solving or standard protocol approaches within a general framework (e.g., Delaware, Washington, Utah, West Virginia), which results in different models in the same state or even in the same district. Some states blend the two approaches within one model. For example, Ohio, Georgia, and Florida use a problem-solving process to determine standard protocol interventions at Tier 2 and individualized interventions at Tier 3 (and Tier 4 in Georgia), and Arizona's current blended tiered problem-solving approach has emerged from an initial standard protocol model.

States in the development phase. Many states are in various stages of the development of policies and guidelines related to RtI. Alabama and Indiana have formed a committee to begin reviewing several existing RtI models, whereas Kentucky is soliciting feedback from stakeholders throughout the state before proceeding. Mississippi, Hawaii, and Nevada are reviewing other models with the intention of expanding their existing prereferral models. New Mexico is in the process of making revisions to an initial state model based on feedback from stakeholders before proceeding with statewide implementation.

Other states are using information from existing or planned pilot sites in the development of a state model (e.g., Montana, New Hampshire, Colorado, Minnesota, Oklahoma, Vermont, Wyoming, Michigan, New York, South Dakota). These pilots are each at different phases: states planning initial pilots (New York), states accepting

applications (Oklahoma), states in the process of providing professional development (Michigan), and states that are using beginning pilot data to formalize their state plans (Minnesota, Montana, New Hampshire, South Dakota, Wyoming). In addition, Vermont is collaborating with the University of Vermont to develop model pilot sites, and Colorado is using information gained from its pilot districts both in finalizing a practitioner's guide and in developing accompanying informational video and training modules that will be disseminated throughout the state.

States providing guidance. Several state departments of education are providing guidance to school and districts but are not currently requiring that schools implement RtI models. Guidance was found to take many forms, including comprehensive state RtI manuals (e.g., Maryland, Virginia), deferment to other existing programs in the state that utilize tiered interventions (e.g., Massachusetts and Tennessee suggest that districts model the tiered structure of the states' existing Reading First Programs), or general guidance and professional development (e.g., California, Maine, Missouri, Texas). In some cases, states are providing guidance to schools with mandates that all schools will create their own plans for implementation (e.g., Virginia) sometimes by a specified date (e.g., Maine and Illinois are requiring each school administrative unit to submit a plan and implement by 2010), whereas other states are currently giving districts local control and choice over RtI implementation (e.g., Maryland, Massachusetts, Missouri, Texas).

Is Professional Development Provided?

Regardless of whether a state model has been adopted or implementation is actively required at the state level, most (88%) of state departments of education have planned or are already conducting some form of professional development on RtI, and each state that has adopted an RtI model that it is implementing includes a professional development component. Delivery of professional development varies widely.

Some states are utilizing university resources for professional development. For example, the IRIS Center at the Vanderbilt University is working with Tennessee's Department of Education to develop online training modules, and in Florida, the University of South Florida won a contract from the state department of education to provide statewide training. Other states have developed their own state resource centers (Minnesota RtI Center; Illinois's Alliance for School Based Problem Solving and Intervention Resources in Education, or ASPIRE; Michigan's Behavior and Learning Support Initiative, or

MiBLSI) to provide professional development and technical assistance to schools, and California has created a video, *Response to Intervention Training for California Educators*, that is available via Web cast and DVD.

How Are States Regulating SLD Identification?

Since the reauthorization of the Individuals with Disabilities Education Act, most state regulations ($n = 37$) now indicate that RtI and/or a severe discrepancy between IQ and achievement can be used to find students eligible for special education due to SLD. Two states now indicate that RtI is the only option (Delaware, Georgia), and one state's regulations are unclear (South Carolina). Ten states currently indicate discrepancy only in their state regulations for special education; however, many of those states are in the process of amending their regulations. Some states currently have proposed amendments that add RtI as an option for states to use in the eligibility process (e.g., Arkansas, Rhode Island, Tennessee, California, Virginia, Wisconsin), whereas other states have proposed that RtI replace discrepancy entirely (e.g., Indiana, Kentucky). Other states have timetables for when the discrepancy model will be phased out (Illinois, Rhode Island) or eliminated (e.g., Connecticut will not allow discrepancy to be used after June 2009; New York will not use discrepancy after 2012).

What Do Adopted RtI Models Look Like?

Information related to the intensity of interventions included within RtI models adopted by states is presented in Table 2. Note that these data present only information for the states in which RtI models are formally adopted and being implemented.

Number of tiers. The majority of states have adopted models that include three levels, or tiers, of intervention ($n = 13$), followed by four tiers ($n = 2$). There are some commonalities between three-tier models. For all states, the first tier consists of general education interventions, including differentiated instruction, administered class-wide or to struggling students who are identified through universal screening and/or benchmark assessments. In general, Tier 2 intervention involves more intensive small-group interventions with frequent progress monitoring; Tier 3 involves highly intensive, specifically targeted individual instruction with even more frequent progress monitoring that may or not include placement in special education. However, all three-tier models are not alike; in fact, there are differences in models at every tier.

A major difference at Tier 2 is the way in which interventions are developed. For example, some states

determine interventions at Tier 2 through problem-solving teams that develop specific interventions based on individual student needs (e.g., Iowa, Nebraska). Other states predetermine a list of research-based interventions that target specific skill deficits and try to maximize efficiency of resources by grouping students who have similar academic needs (e.g., Florida, Oregon, Pennsylvania). There are also differences in Tier 2 regarding who is involved in the problem-solving process and direct instruction. In some states, Tier 2 instruction is the responsibility of the classroom teacher, special education teacher, English-language-learner teacher, speech language pathologist, or other specialists (Utah, West Virginia). In other states, such as South Dakota, Tier 2 interventions can be provided by any trained staff member under the supervision of a specialist with expertise in the intervention.

Tier 3 also has major differences from state to state. In some states, Tier 3 interventions continue to be provided in small groups (Delaware, Pennsylvania, Kansas, Arizona, Nebraska), whereas in other states, Tier 3 interventions are individualized (Oregon, Ohio, Washington, Florida). Yet other states allow Tier 3 interventions to be provided in small groups or individually (Utah, West Virginia, Louisiana).

In all three-tier models, special education placement is considered to be a separate process that occurs after RtI remediation interventions have been exhausted. However, there are inconsistencies regarding when the special education referral process can be initiated. Most states consider special education after students have progressed through Tier 3 (Florida, Delaware, Iowa, Kansas, Oregon, Pennsylvania, Washington, West Virginia), although some states conduct special education referrals after Tier 2 (West Virginia, Nebraska), and other states allow special education referrals to be made at any point in the RtI process (Ohio, Utah). Several state models do not clearly indicate when the special education eligibility process is initiated (Louisiana, Arizona).

Not all models consist of three tiers; North Carolina and Georgia both have models that consist of four tiers. Both of these models consider their fourth tiers to be placement in special education. Although very different from each other, North Carolina's model is most similar to other three-tier problem-solving models, whereas Georgia's model is most similar to three-tier standard protocol and structured hybrid models. However, unlike three-tier models, neither of these models considers special education to be a separate process but instead includes special education as the fourth tier. In North Carolina, a problem-solving process is utilized at each tier, based on individual student needs (see Figure 2). The number and specialties of persons involved in the

Table 2
Response-to-Intervention (RtI) State Implementation

State	Number of Tiers	Domain	Intervention Frequency	Instruction Group Size	Progress Monitoring	Researched-Based Practices	Fidelity
Arizona	3	A + B	ST	ST	ST	S	S
Delaware	3	A + B	ST	ST	ST	S	S
Florida	3	A + B	ST	ST	ST	S	S
Georgia	4	A + B	ST	ST	ST	S	NS
Iowa	3	A + B	S	NS	S	S	NS
Kansas	3	A + B	ST	ST	ST	S	NS
Louisiana	3	A(R)	S	ST	ST	S	S
Nebraska	3	A + B	S	NS	S	S	S
North Carolina	4	A + B	NS	NS	S	NS	NS
Ohio	3	A(R) + B	NS	ST	ST	S	S
Oregon	3	A + B	ST	ST	ST	S	S
Pennsylvania	3	A + B	ST	ST	ST	S	S
Utah	3	A(R) + B	ST	ST	ST	S	S
Washington	3	A + B	ST	ST	ST	S	S
West Virginia	3	A(R) + B	ST	ST	ST	S	S

Note: A = academic; A(R) = reading only; B = behavior; S = specified (not by individual tier); ST = specified by tier; NS = not specified/unclear.

problem-solving process increases with each tier, as does the intensity of intervention for the student. Although Georgia also uses a problem-solving process at each tier, decision making is much more structured. Similar to most three-tiered models, Tier 1 consists of universal screening, evidence-based core curricula with differentiation of instruction, and monitoring of at-risk students for at least one grading period; Tier 2 consists of small-group instruction for a set amount of time with ongoing progress monitoring; and Tier 3 consists of individualized interventions determined by a problem-solving student support team. Students who qualify for special education progress to Tier 4.

Models also differ in how tiers are conceptualized. Standard protocol models (e.g., Pennsylvania) include specific guidelines to assist educators in the problem-solving process. These guidelines can include specific requirements for curriculum used, duration and intensity of interventions, qualified personal, and fidelity. These models are depicted by the pyramid that is typically associated with RtI and ultimately can result in evaluation for special education services. These models also often specify criteria for when a child should be considered nonresponsive. In stark contrast, Iowa's problem-solving model is a highly individualized and recursive process. As a result, specifics related to intervention, duration, and intensity are not predetermined but, rather, inductively created by a team of professionals on a child-by-child basis. In addition, this model does not view RtI as a process to determine special education eligibility; rather, RtI is viewed as a model to meet the learning

needs of all students. For this reason, the model is depicted by a circle that contains cycles of intervention, as apposed to the more typical pyramid that implies directionality toward special education (see Figure 2).

Domains. Although RtI is generally thought of as referring to academic intervention, most states (93.3%) also incorporate behavioral intervention in the RtI model or use a similar multitiered approach to address the behavioral needs of students. All but one of the states (Louisiana) use tiered approaches to address behavior in addition to academics. In addition, four academic RtI models currently include reading only (Utah, Louisiana, Ohio, West Virginia).

Intensity of intervention: frequency and group size. States display varying levels of descriptions regarding the intensity of intervention required during the RtI process. Most states specify guidelines by tier (66.6%) for how frequently intervention needed to occur. This typically involves the requirement of additional supplementary instruction at Tiers 2 and 3 (e.g., Kansas, Georgia, Utah, West Virginia). Other states (20%), such as Iowa and Louisiana, generally specify that frequency of intervention needs to increase as students progress through the tiers, but these states do not indicate specific requirements. Still other states (13.3%) do not specify in their state documents any specific requirements for frequency of intervention.

States also vary in reported requirements for instructional group size (i.e., large-group, small-group, or

individualized instruction). Most states specify group size for each tier (80%), although three do not (20%). A few states are very specific in how they define group size at Tiers 2 and 3. For example, Kansas indicates that small-group instruction should consist of between three and five students at Tier 2 and fewer than three students at Tier 3. Other state models are more flexible in group size requirements; for example, Arizona's model allows for large- or small-group instruction at Tier 1, small-group instruction at Tier 2, and small or individualized instruction at Tier 3. It is important to note that states that are the least specific regarding the intensity of interventions do so purposefully. Each has adopted problem-solving models that require issues involving intensity of intervention to be determined by a problem-solving team specific to the needs of individual students.

Progress monitoring. All states report requirements for progress monitoring. Most states make reference to the frequency that progress monitoring should occur at each tier (80%), whereas some reference the need for progress monitoring but not specifically by tier (20%). Generally, state requirements include frequent progress monitoring at Tier 2 and continuous, or even more frequent, progress monitoring at Tier 3. Specific minimum requirements for progress monitoring are similar across states as well. For example, most states require that universal screening occur at least three times a year and that progress monitoring occur in the range of two to four times per month at Tiers 2 and 3 (Arizona, Delaware, Kansas, Georgia, Pennsylvania, Utah, West Virginia).

Research-based practices and treatment fidelity. All but one state makes specific reference to the use of research-based practices (93.3%). Although the majority of implementing states indicate that fidelity is an issue to consider related to RtI (73.3%), four states make no mention of fidelity.

Discussion

Implementation

It is interesting to us that so many states are using problem-solving or blended approaches when standard protocol approaches have been favored by researchers (D. Fuchs et al., 2003) and problem-solving models have faced criticism due to lack of rigorous research about effectiveness (D. Fuchs et al., 2003; Mastropieri & Scruggs, 2005). Indeed, many states purposefully do not "reinvent the wheel" but instead have expanded existing

prereferral (problem-solving) models or existing multi-tiered programs such as Reading First or Positive Behavior Supports. Although some states, such as Kansas and Iowa, have been implementing basic RtI models well before changes were made to federal regulations, other states are at varying stages of readiness to begin making a change. Some states, such as Georgia, appear to have jumped in feet first, whereas others, such as Illinois and Tennessee, are proceeding with caution, making sure that stakeholders are actively involved and that infrastructure supports are in place for systematic change.

Although most states have adopted a three-tier model, these three-tier models are not the same. Indeed, comparing the three-tier models of different states is rather like comparing apples to oranges. Differences in the third tier alone are enough to create serious confusion. According to Reschly (2005), "The dual purposes of Tier 3 problem solving are to resolve learning and behavior problems, thus preventing the need for special education, or depending on outcomes, determine eligibility for special education" (p. 514). However, Tier 3 is the most varied tier in state models. It is especially unclear when the special education process begins and what special education services consist of for students for whom general education is the least restrictive environment. Does the special education eligibility process begin when students enter Tier 3 or only after they exit Tier 3? This seems to be a gray area. If a student is found eligible for special education services and the general education classroom is the least restrictive environment, how do services differ for the student? This is an important consideration that should be clear to both general education and special education teachers; however, this issue appears to be even muddier. Differences such as these have the potential to add to confusion in the field about RtI, as practitioners and other stakeholders are quickly moving forward with the implementation process.

Furthermore, because some states are farther along with RtI implementation, other states refer to them when developing their models, often using consultants from other states to provide professional development. It is important that states clearly communicate with educators, parents, and other stakeholders about state requirements so that misunderstandings do not arise. It is also important that researchers and other leaders in the field be very clear when making reference to the "three-tiered model," as this term likely means different things to educators throughout the country. Furthermore, as researchers continue to investigate issues related to RtI, it is important that implementation for all grade levels be

addressed. Although it is not the purpose of this article to look at this topic, it is important to note that implementation, and even basic guidance for that matter, is scarce when it comes to secondary schools. This is likely because most of the RtI research has targeted early childhood; however, little empirical evidence suggests that RtI is also appropriate for children at older ages (Semrud-Clikeman, 2005). Furthermore, even in theory, RtI models do not generally address the entire spectrum of grade levels (Johnson et al., 2005; Mastropieri & Scruggs, 2005). It is no wonder then that descriptions regarding how tiered RtI models should be implemented at the upper grades, regardless of the number of tiers, were virtually nonexistent in our search.

Research-Based Practices and Fidelity

A critical component of an RtI model is the inclusion of research-based practices. Although research-based practices are generally mentioned, it appears that many states have not done a comprehensive job addressing the areas of research-based interventions for the various tiers. There is also a serious omission of information regarding research-based practices at the secondary level in general.

Most state models also do not include clear requirements for monitoring fidelity of treatment. Although fidelity can be difficult to address, it is critical that the process is implemented with integrity on a large scale and across all education settings (Johnson et al., 2005). Bender and Shores (2007) recommend that this issue be addressed via observation; thus, another educator observes at least one lesson in each tier, not only to observe the student but also to note that the teacher is teaching the curriculum as presented in the instructor's manual. Lack of such observations in this area has the potential to leave states open to due process challenges over the diagnosis of learning disabilities identified using RtI procedures.

Professional Development

Many states are actively providing some form of professional development to teachers in the state. Some state departments indicate that they intend to establish collaborative relationships with various stakeholders, particularly in general education. However, information related to professional development for RtI was almost always found through the special education link of state Web sites. According to Denton, Vaughn, and Fletcher (2003),

If models for the identification of students who are provided with special services are to take into account their responsiveness to high-quality classroom

instruction and intervention, effective practices must go beyond the research setting and be routinely integrated into the everyday practices of our schools. (p. 209)

For this integration to occur, a strong Tier 1 is needed. This means that, for an RtI process to succeed, "general education teachers must assume active responsibility for delivery of high quality instruction, research based interventions, and prompt identification of individuals at risk while collaborating with special education and related service personnel" (Marston, 2005, p. 541). One concern, however, is that general educators do not currently have the background knowledge or skills needed to implement an RtI model even in beginning reading (Mastropieri & Scruggs, 2005). Some recommend that professional development should include both general knowledge and the provision of master teachers to support to general education teachers (Semrud-Clikeman, 2005).

Implications for Practice

Although there is almost universal agreement that multiple tiers of prevention should be used (Reschly, 2005), many questions remain. In addition, lack of specificity in assessment, intervention implementation, selection of research-based practices, and fidelity raises concern about how consistently the eligibility process will be implemented both within and between states. Considering that one of the major criticisms of the discrepancy model was that there was too much variability between states (Reschly & Hosp, 2004), RtI seems to hold a similar trajectory. This is especially true for states that do not allow the discrepancy model at all. Furthermore, it is unclear how consistency between states, districts, schools, and even grade levels will be obtained.

Finally, many additional questions and issues will inevitably arise as schools throughout the United States continue this RtI implementation process. However, the number of states that have developed or are developing policies related to RtI suggests that educators throughout the country foresee the potential benefits of multitiered interventions.

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