
COMMENTARY

A Framework for Building Capacity for Responsiveness to Intervention

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Within the context of a multilayered prevention system, responsiveness to intervention (RTI) integrates increasingly intensive instruction and, at each layer, employs assessment to identify students who are inadequately responsive and who therefore require intervention at the next, more intensive layer in the system. Over the past decade, RTI has emerged as a promising model of service delivery at the elementary grades, with behavior and reading receiving the greatest amount of systematic attention by researchers and practitioners.

At the elementary grades, primary prevention is typically conceptualized as instruction in the general education classroom. Only children who fail to respond to this universal core program enter secondary prevention that, in most research-based versions of RTI, involves scientifically validated small-group tutoring. Students who show poor response to this second, more intensive, and standardized form of intervention are considered to have a need for even greater intensity at the tertiary

level. Given the student's failure to respond to a validated standard tutoring protocol, tertiary intervention typically involves an individualized program formulated inductively to meet the student's unique needs. In many but not all systems, tertiary intervention is conducted under the auspices of special education, given the student's need for individualized rather than standard programming and given the expense and expertise required for individualized programming. In this regard, we note that RTI, as a multitier prevention system, is designed to prevent long-term academic and social failure, not designed to prevent special education per se. Special education, we believe, should be conceptualized as a valuable resource within the prevention system, with students entering and exiting as their progress warrants. In this way, RTI simultaneously provides a framework for preventing long-term serious difficulties, even as it offers an innovative and promising process for identifying and serving students with disabilities.

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RTI has been codified in federal law as an alternative to traditional methods for identification of learning disabilities, and practitioners are now struggling to build RTI models for their schools, even as the federal government invests research monies to develop and validate such practices. It therefore seems appropriate at a time of both excitement and confusion about RTI to propose a framework to guide school personnel in selecting a practice and to help researchers build a useful body of knowledge to inform that practice. In this commentary, we offer such a framework and then we consider how the articles constituting this special issue address the various questions posed in the framework.

In Table 1, we present a framework for building RTI capacity. For each layer of intervention, a set of questions addresses the intervention efficacy, assessment integrity, and feasibility of an RTI model. These questions are answered separately for each performance domain (e.g., reading vs. math vs. challenging behavior) and at each grade or age level. Table 1 reveals the magnitude of the work scope for building RTI capacity in the various performance domains at the full range of age levels. We emphasize that the questions posed in Table 1 are considered with respect to RTI design issues, which include, for example, deciding how many instructional revisions occur within each layer of the prevention system (e.g., must accommodations or adaptations to primary prevention be systematically attempted and evaluated before a student progresses to secondary prevention?) or determining whether short-term progress monitoring is used to supplement universal screening before deciding on a student's risk status. The questions posed in Table 1 are used to select among these and other RTI design issues, which we discuss elsewhere.

Of course, as illustrated in this special issue, many validated forms of instruction and assessment that might be incorporated into RTI designs already exist. For most instructional and assessment practices, however, even those with persuasive databases, key questions specific to RTI remain unanswered.

For example, for most validated approaches to primary and secondary intervention, the proportion of children who can be expected to prove unresponsive is unknown. Similarly, even for reliable and valid forms of progress monitoring, data-utilization rules are yet to be determined for dichotomizing response in ways that reliably and validly forecast important long-term outcomes.

It is thus interesting to appreciate the work constituting this special issue against the questions posed in the RTI framework in Table 1. In a strong introduction to the special issue, Amanda VanDerHeyden and Patricia Snyder offer a coherent set of arguments for the importance of extending RTI to young children (VanDerHeyden & Snyder, 2006). They explain how existing prevention programs are relevant to RTI. They also consider how RTI represents the potential to enhance child-find activities by eliminating inadequate learning opportunity as an explanation for low performance, thereby improving disability identification methods. VanDerHeyden and Snyder also nicely describe how the early childhood context presents challenges for RTI, challenges that align well with some of the questions posed in our framework, including the need for agreement on the critical outcomes that precede school entry, a lack of sufficient progress-monitoring tools, and the absence of cutoff points for dichotomizing response.

Two articles, Barnett et al. (2006) and Hemmeter, Ostrosky, and Fox (2006), focus on the intervention aspect of RTI, addressing the intervention efficacy questions in our framework. Their inattention to proportions of expected nonresponders mirrors similar inattention at the elementary school level and is understandable given RTI's status as an emerging practice. Nevertheless, both articles provide a cogent explanation of a series of interrelated practices that represent a strong basis for the prevention of problem behavior. These articles illustrate how existing efficacy work provides a strong foundation for initiating RTI for young children. In addition, the Barnett et al. article raises an intriguing no-

Table 1
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Layer or Dimension	Question
Primary	
Intervention efficacy	<ul style="list-style-type: none"> What is the efficacy of the universal core program? What is the expected effect size? What proportion of students responds adequately? How can fidelity of implementation be measured accurately?
Assessment integrity	<ul style="list-style-type: none"> How is responsiveness to the universal core program determined? How accurately does the screening tool predict who will and will not achieve important long-term outcomes? What progress-monitoring tool reliably and validly represents progress at primary prevention? What rules can be applied to the progress-monitoring data to reliably and validly dichotomize responsiveness so it corresponds to forecast important long-term outcomes?
Feasibility	<ul style="list-style-type: none"> What is the feasibility of implementing the universal core program? What are the costs of implementing the universal core program? What is required to train and support classroom teachers in implementation? What is the feasibility of implementing screening and progress monitoring at primary prevention? What are the costs of implementing screening and progress monitoring? What level of training is required to conduct screening and progress monitoring for primary prevention? Is technology useful to support decision making?
Secondary	
Intervention efficacy	<ul style="list-style-type: none"> What is the efficacy of the secondary intervention? What is the expected effect size? What proportion of students responds adequately? How can fidelity of implementation be measured accurately?
Assessment integrity	<ul style="list-style-type: none"> How is responsiveness to the secondary intervention determined? What progress-monitoring tool reliably and validly represents development at secondary prevention? What rules can be applied to the progress-monitoring data to reliably and validly dichotomize responsiveness so it corresponds to forecast important long-term outcomes?
Feasibility	<ul style="list-style-type: none"> What is the feasibility of implementing the secondary intervention? What are the costs of implementing the secondary intervention? What type of staff is required to expect fidelity of implementation? What is needed to train, support, and supervise personnel in implementation? What is the feasibility of implementing screening and progress monitoring at secondary prevention? What are the costs of implementing screening and progress monitoring? What level of training is required to conduct progress monitoring? Is technology useful to support decision making?

Table 1 Continued

Layer or Dimension	Question
Tertiary	What is the efficacy of tertiary intervention? How are individualized programs inductively formulated to ensure student response? What is the efficacy of tertiary intervention? What proportion of students responds adequately? How can fidelity of implementation be measured accurately?
	How is responsiveness to tertiary intervention determined? What progress-monitoring tool reliably and validly represents development at tertiary prevention? What rules can be applied to the progress-monitoring data to reliably and validly dichotomize responsiveness so it forecasts important long-term outcomes? What rules can be applied to the progress-monitoring data to formulate sound decisions about exiting tertiary intervention?
	What is the feasibility of implementing the individualized tertiary intervention? What are the costs of implementing the tertiary intervention? What type of staff is required to expect fidelity of implementation? What is needed to train and support personnel in implementation? What are the costs associated with implementing progress monitoring? What is the feasibility of implementing screening and progress monitoring at tertiary prevention? What are the costs of implementing screening and progress monitoring? What level of training is required to conduct progress monitoring? Is technology useful to support decision making?

tion—namely, when problem behavior is the focus of the system, intensity might increase or decrease with successive layers of intervention. Hemmeter et al. provide an important discussion about how early childhood settings challenge the extension of RTI to this age group. It is interesting to note that both articles, the only two in this special issue to address intervention, address challenging behavior, rather than cognitive development or other precursors of reading or math competence. Appropriate behavior, of course, is a critical aspect of early development because, as the authors eloquently explain, appropriate behavior is a necessary ingredient for school and life-long success, even as the prevalence of extremely challenging behavior in the population of young children in the United States

is disturbingly high. As researchers of early reading and math development, however, we note the absence of attention in this special issue to multilayered preschool interventions pertaining to cognition and preacademics. In addition, it is of interest to consider the criterion of “social significance” for operationalizing response in the context of social behavior, as discussed by Barnett et al. The enduring problems associated with clinical judgment may warrant supplementing social validity with objective assessment procedures and cut-off points for intervention responsiveness that are associated with long-term success (i.e., questions about indexing responsiveness in our framework).

Whereas the intervention articles focus on challenging behavior, the assessment arti-

cles in this special issue target the cognitive or preacademic domain. Kamatsu and Witt (2006) describe an interesting assessment procedure for distinguishing between fluency with English versus disability among English language learners, an enduring problem for disability certification. Greenwood, Walker, Carta, and Higgins (2006) speak to the issue of progress monitoring. As shown in our framework, this is essential to the RTI process for quantifying response to the universal core program at primary prevention and to secondary intervention, and for inductively formulating individualized programs and determining exit decisions at the tertiary level. Greenwood et al. describe an innovative progress-monitoring measure that addresses cognitive development through authentic problem solving. They demonstrate an orderly increase in performance across 1- to 3-year-olds; significant slopes at 36 months; strong interobserver agreement, internal consistency reliability, and alternate form reliability; as well as adequate criterion validity. This study provides a strong foundation for further study to address additional questions specific to RTI, such as the following: What data-utilization rules can be applied to the progress-monitoring data at primary prevention to eliminate false negative and false positive decisions about who should enter secondary intervention? What data-utilization rules can be applied to the progress-monitoring data to dichotomize reliably and validly responsiveness, so it forecasts important long-term outcomes? In addition, what data-utilization rules can be applied to the progress-monitoring data to formulate sound decisions about exiting tertiary intervention?

Finally, Hojnoski and Missal (2006) address the persistent question about how to expand the role of the school psychologist.

These authors make a persuasive case that early childhood RTI provides an opportunity for school psychologists to increase their effect in terms of intervention and intervention-related assessment, potentially representing a valuable resource to effect RTI reform with this age group.

In all these ways, this special issue brings together important tools for building RTI practice in the early childhood arena. Clearly, an important task at the early childhood (and school-age) level is to continue to consider how existing research and development provides a foundation for initiating RTI reform to effect sounder forms of prevention and identification and to then determine what questions remain unanswered to make RTI a strong reality across the age span.

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