

Responsiveness-to-Intervention and School-Wide Positive Behavior Supports: Integration of Multi-Tiered System Approaches

George Sugai

University of Connecticut

Robert H. Horner

University of Oregon

The Individuals with Disabilities Education Act and No Child Left Behind emphasize the use of scientifically based research to improve outcomes for students. From this emphasis, response-to-intervention has evolved. We present one perspective on the defining features of response-to-intervention and application of those features to school-wide positive behavior supports (SWPBS). We suggest that the initial purpose of response-to-intervention has expanded from a focus on screening and improved outcomes for students with learning disabilities to a general approach for improving instructional and intervention decision making for all students. We describe a similar evolution of SWPBS, only with a focus on the (a) social culture within the whole school and (b) behavior supports for those students with problem behavior. We conclude by suggesting that the response-to-intervention approach offers an excellent umbrella of guiding principles for improved assessment and intervention decision making, and that SWPBS is an example of the application of these principles to the challenge of establishing formal systems of behavior support for all students' school- and classroom-wide. To guide SWPBS implementation, we offer a self-assessment protocol for school and leadership implementation teams to improve the development of an integrated continuum of behavioral interventions and practices that is effective, efficient, relevant, and durable.

- *"I want my children to receive the Response-to-Intervention program."*
- *"We've got a Response-to-Intervention team that meets on the 2nd Tuesday of each month, and a School-wide Positive Behavior Support committee that meets on 3rd Wednesday of each month."*

Correspondence should be addressed to George Sugai, University of Connecticut, 249 Glenbrook Road, Unit 2064, Storrs, CT 06269-2064. E-mail: george.sugai@uconn.edu

The development of this article was supported in part by a grant from the Office of Special Education Programs, U.S. Department of Education (H029D4005). Opinions expressed herein are the author's and do not reflect necessarily the position of the U.S. Department of Education, and such endorsements should not be inferred.

- *"Response-to-Intervention is about closing the achievement gap. School-wide Positive Behavior Support is about improving school discipline and classroom management."*
- *"We are required to use Response-to-Intervention to identify students with learning disabilities."*

The above statements are heard as districts and states ask educators to "implement" "responsiveness-to-intervention" (RtI). Unfortunately, these kinds of statements reflect misconceptions about RtI, especially in the context of school-wide positive behavior supports (SWPBS). The purpose of this article is to provide one perspective on the source and features of RtI and how RtI provides a useful framework for implementing SWPBS. To achieve this purpose, we describe RtI and its influential features, SWPBS and RtI similarities and differences, and practical implementation guidelines for SWPBS that reflect an RtI approach.

RESPONSIVENESS-TO-INTERVENTION

Where Does RtI Come From?

In December of 2004, President Bush signed into law the reauthorization of the Individuals with Disabilities Education Improvement Act (IDEA). This action maintained the original focus of the Education for All Handicapped Children Act of 1975 by providing due process safeguards and rights for students with disabilities and their families with access to special education services designed to meet their unique educational needs. The IDEA reauthorization was designed specifically to enhance the intent of and regulatory alignment with the No Child Left Behind Act (NCLB) of 2001, which amended Title I of the Elementary and Secondary Education Act (ESEA) of 1965. Ten alignment areas between NCLB and IDEA have been emphasized by the U.S. Department of Education (www.ed.gov):

1. Definitions (e.g., "core academic areas," "Limited English Proficient," "highly qualified," "scientifically based research").
2. Allowable use of funds for state-level activities.
3. Allowable use of funds in school-wide programs.
4. Allowable use of funds by Local Education Agency in ESEA activities.
5. Requirements for qualifications of special education teachers.
6. Performance goals and indicators.
7. Reporting requirements.
8. Development of alternative assessments.
9. Linking of records of migratory children across states.
10. Eligibility determination regarding lack of appropriate instruction.

The intent to improve alignment between NCLB and IDEA is important to understanding how RtI has become a consideration for both general and special education. First, the phrase or term "response-to-intervention" is never used in IDEA or NCLB. A word search in IDEA for "response-to-intervention" and its variations produced no matches. RtI, however, is often linked to "scientifically based research" (SBR). A search for "scientifically based" in IDEA produced 18 matches, for example, "scientifically based research" (8), "scientifically based

early reading programs" (2), and "scientifically based literacy instruction" (2). A similar search in NCLB produced 69 matches, of which "scientifically based reading" was found 34 times. ("scientifically based instructional programs" was found once). Regulatory language in IDEA states the following:

(B) ADDITIONAL AUTHORITY.—In determining whether a child has a specific learning disability, a local educational agency may use a process that determines if the child responds to scientific, research-based intervention as a part of the evaluation procedures described in paragraphs (2) and (3). (p. 60)

Preceding the 2004 reauthorization of IDEA, concerns about screening and improving outcomes for students with learning disabilities (LD) resulted in the establishment of the "Learning Disabilities Initiative" (Bradley, Danielson, & Hallahan, 2002) by the Office of Special Education Programs in the U.S. Department of Education. One of the main outcomes of the Initiative was the establishment of a number of consensus statements about learning disabilities, in particular, the need for ways other than using an achievement discrepancy formula to identify students with LD. Response to scientifically based, effective intervention was emphasized as a promising and practical means for identification and improving instructional outcomes, and the phrase "response-to-intervention" was considered an appropriate referent.

Given this analysis, we can draw a number of conclusions. First, the alignment of the term "scientifically based research" is high between NCLB and IDEA. Second, the use of RtI does not have its origins directly in either NCLB or IDEA. Although the first use of the term "response to intervention" is difficult to pinpoint, the emphasis on using student performance or responsiveness to instruction in the context of LD clearly gained momentum with the LD initiative, which resulted from attempts to improve special education outcomes for students with LD and arguably to align the intent and regulatory requirements of NCLB and IDEA. Third, the RtI emphasis began in special education and the concern for providing alternative ways of identifying students with LD and improving educational outcomes for these students. Finally, the developmental path for extending RtI to general education and other disabilities categories is not well developed or delineated.

What is RtI?

Given the initial concern for improving early identification and achievement outcomes for students with LD, RtI has been described as an alternative approach to the traditional IQ-discrepancy approach for identifying students with LD (Bradley, Danielson, & Hallahan, 2002). As an alternative, this approach has been characterized as a multi-step or -tiered approach in which student progress is closely monitored to make good instructional and intervention decisions, which might include consideration for special education services because of possible LD. Moving away from a "one intervention—one school" perspective, RtI promotes a careful consideration of an array of interventions that are organized to respond to the increasing support needs of students. More specifically, RtI has six core defining features (e.g., Fuchs, 2003; Fuchs & Fuchs, 1998; Fuchs, Fuchs, & Speece, 2002; Fuchs, Mock, Morgan, & Young, 2003; Vaughn, Linan-Thompson, & Hickman, 2003) that are applicable across curriculum areas (e.g., literacy, behavior, numeracy, art, physical education, social studies):

1. Interventions that are supported by scientifically based research.
2. Interventions that are organized along a tiered continuum that increases in intensity (e.g., frequency, duration, individualization, specialized supports, etc.).
3. Standardized problem-solving protocol for assessment and instructional decision making.
4. Explicit data-based decision rules for assessing student progress and making instructional and intervention adjustments.
5. Emphasis on assessing and ensuring implementation integrity.
6. Regular and systematic screening for early identification of students whose performance is not responsive to instruction.

What is the Support for RtI?

Although RtI has been described as a reasonable approach (e.g., Bradley, Danielson, & Doolittle, 2007), a number of concerns have been expressed about the justification and support for adopting an RtI approach, especially for LD screening and identification, and intervention outcomes (Burns, Appleton, & Stehouwer, 2005; Christ, Burns, & Ysseldyke, 2005; Gresham, 2005, 2002; Gresham et al., 2005; Ikeda & Gustafson, 2002; Kavale & Spaulding, 2008). For example, Gresham (2005) has questioned whether the technology is mature enough to decrease the likelihood that educators will make false positive (i.e., adequate responder identified for support) and false negative (i.e., inadequate responder not identified for support) decisions, especially for students with behavior disorders. Because experimental support is limited, we suggest caution when making high-stakes decisions for students (i.e., special education). Concerns include, for example, the following:

1. Psychometric features of *measures*
2. *Standardization* of assessment and measurement procedures and schedules
3. Documentation of "*cut-scores*" and "*benchmarks*" for determination of responsiveness
4. *Intervention* effectiveness, efficiency, and relevance
5. Consideration of *cultural* context
6. Applicability across *grade, age, disabilities*, etc.

From a problem-solving perspective, when additional information is collected and considered to improve instructional decision making (i.e., low-stakes decisions), support for adopting an RtI approach is more compelling (Barnett, Daly, Jones, & Lentz, 2004; Marston, Muyskens, Lau, & Canter, 2003). This support is not so much for the overall RtI approach as finding value in elements that define RtI operation. In Table 1, we describe practices and strategies that have influenced the shaping of the RtI.

SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORTS

The reauthorizations of IDEA (1997, 2004) increased attention to the use of scientifically based behavioral interventions and supports, in particular to prevent the development of problem behaviors and to address the educational needs of students with serious behavior challenges. In 1997, the Office of Sponsored Projects, U.S. Department of Education funded the formation

TABLE 1
Practices and Strategies That Have Helped Shape RtI

<i>RtI Influences and Foundations</i>	<i>Description</i>
Pre-referral Interventions & Teacher Assistance Teaming	School structures and procedures are used to organize resources for the early identification and remediation of instructional deficits before more formal and specialized interventions are considered. Teachers requesting assistance for students who are not benefiting from the existing curriculum work as teams with other school staff to remediate the problem. If student progress is not improved sufficiently, a referral for more specialized assistance is requested (e.g., Chalfant, Pysh, & Moultrie, 1979; Graden, 1989; Graden, Casey, & Christenson, 1985; Idol-Maestas, 1983; Ikeda & Gustafsen, 2002; Kovalski, 2002; Pugach & Johnson, 1989; Zins, Graden, & Ponti, 1988).
Diagnostic/Prescriptive Teaching	Rather than focusing attention on the learner as the source of at-risk academic performance, the emphasis is on the analysis of the appropriateness of the curriculum, integrity of the presentation of the curriculum, and nature of the student's responsiveness to the curriculum and its presentation. Conclusions from a careful "diagnosis" of the problem are used to "prescribe" specific and individualized instructional adaptations for the learner (e.g., Colarusso, 1987; Scanlon, 1978; Ysseldyke & Salvia, 1974).
Curriculum-based Measurement	Brief (e.g., 1–2 minutes), regular and frequent (e.g., weekly), direct assessment of student performance on local curriculum (e.g., reading, math, spelling) is standardized to inform decisions related to screening, diagnosis, and instructional planning and adaptations (e.g., Deno, 1985; Deno, Fuchs, Marston, & Shin, 2001; Fuchs & Fuchs, 1999).
Precision Teaching	Standardized and systematic methods are used to formatively evaluate the effectiveness of instruction and curriculum. Derived from applied behavior analysis, the emphasis is on directly observable behavior, frequency as a measure of student performance, and standard "celeration" or behavior charts (e.g., Lindsley, 1990; White, 1986; White & Haring, 1980).
Applied Behavior Analysis	The theory and principles of behaviorism are systematically applied to enhancing socially important behavior. Emphasis is on behavior and the analytic examination of its functional relation with environmental stimuli (e.g., Baer, Wolf, & Risley, 1968; Cooper, Heron, & Heward, 2007; Wolery, Bailey, & Sugai, 1988).
Behavioral/Instructional Consultation & Problem Solving	Behavioral theory is used as the basis of problem solving within the context of school consultation. Five basic steps are emphasized: (a) problem identification, (b) problem clarification, (c) intervention development, (d) intervention implementation, and (e) evaluation (e.g., Bergan & Kratochwill, 1990; Brown-Chidsey, 2005; Kratochwill, Elliott, & Callan-Stoiber, 2002; Sugai & Tindal, 1993).

of the National Technical Assistance Center on Positive Behavioral Interventions and Supports (PBIS) to organize and disseminate behavioral interventions, practices, and systems that could be accessed by all schools. The PBIS Center adopted a behavior analytic approach (Baer, Wolf, & Risley, 1968; Cooper, Heron, & Heward, 2007; Wolery, Bailey, & Sugai, 1988) to operationalize its behavioral roots and translate evidence-based behavioral interventions into practice (Sugai & Horner, 2008; Sugai et al., 2000). To improve the contextual relevance and social validity of its approach, the Center also incorporated the values and guiding principles of positive behavior supports (PBS) (Carr et al., 2002; Dunlap, Carr, Horner, Zarcone, & Schwartz,

2008; Koegel, Koegel, & Dunlap, 1996). Although not disregarding the context of community and family, the Center has emphasized the central and formal role of schools as providers of positive behavioral interventions, and subsequently is identified with an approach coined "school-wide positive behavior support" (SWPBS). A more detailed account of the development, evolution, and influences of SWPBS is provided elsewhere (Safran & Oswald, 2003; Sailor, Dunlap, Sugai, & Horner, 2009; Sugai & Horner, 2009; Sugai & Horner, 2002; Sugai & Horner, in press; Sugai et al., 2000; Walker et al., 1996). In addition, a growing and solid body of research supports the efficacy and effectiveness of SWPBS, especially for the implementation of primary tier interventions. At least three randomized control studies have been published demonstrating the impact of primary tier SWPBS on reducing suspensions and office discipline referrals for major offences, promoting perceived, school safety and health, and supporting increases in academic achievement (Bradshaw, Koth, Thornton, & Leaf, in press; Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008; Horner et al., 2009). Larger bodies of single subject research studies have documented the effectiveness of a wide range of behavioral interventions that are emphasized within the SWPBS approach at the school-wide, classroom, nonclassroom, and individual student levels. A complete listing of the experimental and quasi-experimental research in support of SWPBS and its elements has been compiled by the OSEP Center on Positive Behavioral Interventions and Supports (Horner & Sugai, 2009; www.pbis.org).

SWPBS is described as a prevention framework or approach that highlights the organization of teaching and learning environments for the effective, efficient, and relevant adoption and sustained use of research based-behavioral interventions for all students, especially those with serious behavior challenges (Sugai & Horner, 2009, 2008). Based on the operating features of RtI (e.g., early intervention and universal screening, data-based decision making, scientifically based interventions), three features further operationalize SWPBS: (a) four element integration, (b) evidence-based behavioral interventions, and (c) continuum of behavior support.

Four Element Integration

Instead of adopting a traditional technical assistance approach whereby behavioral interventions are collected and disseminated generally through stand-alone workshops, didactic training seminars, or one-time in-service events, the PBIS Center has adopted a professional development approach that reflects integration of four interactive elements (PBS Implementation Blueprint, 2004; Sugai & Horner, 2009). First, data or information are collected and analyzed to detail the features of the problem or context and to establish measures that can monitor performance progress over time. Second, outcomes or objectives are established based on the data and the priorities determined by the individuals in the implementation setting. Third, practices or interventions are selected that have demonstrated effectiveness in achieving the desired outcomes and adaptability to the implementation setting. Finally and most important, systems or organizational supports are put in place to ensure that real implementers have the skill capacities for accurate, comprehensive, and sustained implementation of the practice, including data-based adaptations and continuous regeneration.

Evidence-Based Behavioral Interventions

Given the SBR priority established by NCLB and IDEA, the PBIS Center has emphasized behavioral interventions that have empirical and applied documentation of their effectiveness

(Horner & Sugai, 2009). However, instead of collecting a broad range or menu of interventions and practices, SWPBS organizes the smallest number of behavioral interventions with the greatest demonstrated effectiveness and applicability within five general school-based areas:

1. *School-wide*: all students and family and staff members across all school settings (e.g., school-wide behavior purpose statement, formal teaching and reinforcement of desired school-wide behavioral expectations, data-based decision making).
2. *Classroom*: integration of behavior management and academic instruction (e.g., teaching and reinforcement of classroom routines, active supervision, academic engagement and success).
3. *Non-classroom*: common, noninstructional contexts (e.g., active supervision, reminders, positive reinforcement, teaching of setting specific routines).
4. *Family*: community and parental involvement in support of student achievement (e.g., positive communications, home practice and reinforcement).
5. *Individual student*: specialized behavior and/or academic supports for students whose behaviors are not responsive to interventions or instruction (e.g., small group/individual cognitive-behavioral counseling, function-based support, wraparound/person-centered planning, targeted social skills and self-management instruction) (Center on PBIS, www.pbis.org; Sugai & Horner, in press).

Continuum of Behavior Support

Within an SWPBS framework, these evidence-based interventions are organized further into a continuum that first considers what all students require for behavior support and then sequences interventions into an array of increasingly specialized intensity to accommodate students whose behaviors are not responsive to a given intervention (Sailor, Dunlap, Horner, & Sugai, 2009; Sugai & Horner, 2009; Sugai et al., 2000; Walker et al., 1996). This continuum is typically conceptualized as a three-tiered prevention approach: (a) primary tier for all students and staff and family members; (b) secondary tier for individuals whose behaviors are not successfully responsive to primary tier and who require more structured intervention practices, more frequent behavior feedback, and more active supervision and monitoring; and (c) tertiary tier for individuals whose behaviors are not responsive to either primary or secondary tier interventions and require behavior supports that are specialized, intensive, and individualized. The three tiers form a continuum characterized by (a) formatively collected student performance data on responsiveness to the immediate environment and interventions, (b) data decision rules used to evaluate student responsiveness, and (c) intervention decisions and adaptations based on student performance.

SWPBS PRACTITIONER'S GUIDELINES

The RtI logic provides a useful and important framework for improved screening and outcomes for students with LD. In addition, RtI highlights a number of best practices that can improve academic outcomes for students with disabilities: (a) universal screening; (b) continuum of

evidence-based instructional practices; (c) team-based, timely, and data-driven decision making; (d) procedural guidelines for assessing intervention integrity; (e) formative and direct assessment of student performance on local curricula. Each of these practices is reflected in the SWPBS approach and its efforts to improve the social behavior outcomes of students in classroom and school environments. Like RtI, SWPBS is based on a strong conceptual and empirical foundation that has logically evolved from behavioral theory, applied behavior analysis, and positive behavior support.

GUIDELINES FOR IMPLEMENTING SWPBS

In this section, we provide a self-assessment designed to guide school and district leadership teams in implementing SWPBS within an RtI context. (See Table 2.) This implementation addresses two concerns. First, interventions can no longer be introduced as content, but must be comprehensive (i.e., multi-tiered) to meet the needs of real school settings and define how schools can put an intervention in place with accuracy and durability.

Second, professional development activities are ineffective and inefficient because they (a) are often one or two time events rather than embedded and ongoing professional development activities, (b) are focused on information and material dissemination rather than skill fluency building, (c) assume accurate implementation rather than putting in place measures that formally assess intervention integrity, (d) are applied without adaptation to culture and characteristics of the local context, and (e) provide informal and infrequent supports for sustainability rather than organizational structures that support onsite coaching, monitoring, and reinforcement (PBS Implementation Blueprint, 2004; Sugai et al., 2000). Instead, professional development must be localized, continuous, embedded, and team driven.

Four basic operating principles are used by school and district SWPBS leadership teams to improve the effectiveness, efficiency, and relevance with which they collect and analyze information and use that information to guide their decision making (Lewis & Sugai, 1999; Safran & Oswald, 2003; Sugai & Horner, 2009; Taylor-Greene et al., 1997):

1. Use *data* to narrow identification of desired goals, expectations, and outcomes.
2. Establish *goals, objectives, and outcomes* that are based on local data, described in measureable terms, and are realistically achievable with available resources.
3. Consider and adapt *interventions and practices* that have empirical and applied evidence of achieving expected goals, objectives, and outcomes.
4. Organize *resources and systems* so that implementers have the opportunities, capacities, and resources to implement the practice with accuracy and fluency over time.

In addition to these guidelines and principles, school and district leadership teams select and organize their evidence-based practices and interventions into an integrated continuum that is supported by (a) a team that coordinates and leads the operation of the continuum, (b) screening and assessment procedures that identify students whose behaviors are not responsive to an intervention, (c) data-decision rules for moving students up and down the continuum of interventions based on their behavior responsiveness, (d) procedures for continuous evaluation

TABLE 2
SWPBS Implementation Guidelines

<i>Form Team</i>	
Yes No ?	1. Adequate membership representation
Yes No ?	2. Active administrator membership and involvement
Yes No ?	3. Efficient means for communications within team and with faculty as a whole
Yes No ?	4. Capacity for ongoing data-based decision making and problem solving
Yes No ?	5. Priority and status among committees and initiatives
Yes No ?	6. Behavioral capacity on team
<i>Establish Agreements</i>	
Yes No ?	1. Commitment to 3-4 years of priority implementation
Yes No ?	2. Use of 3-tiered prevention logic and continuum
Yes No ?	3. Administrator participation and membership
Yes No ?	4. Ongoing coaching and facilitation supports
Yes No ?	5. Dedicated resources and time
Yes No ?	6. Agreement about operating procedures for roles, agenda, meeting times, action planning, etc.
Yes No ?	7. Top three school-wide initiatives based on need
<i>Data-based Action Plan</i>	
Yes No ?	1. Regular self-assessment
Yes No ?	2. Procedures for universal screening
Yes No ?	3. Review and use of existing discipline data
Yes No ?	4. Multiple subsystems of evidence-based behavioral interventions
Yes No ?	5. Team-based decision making and action planning
Yes No ?	6. Efficient system of data input, storage, and summarization
<i>Develop Procedures and Supports for Implementation Action Plan with Fidelity and Durability</i>	
Yes No ?	1. Emphasis on evidence-based practices and interventions
Yes No ?	2. Active administrator participation
Yes No ?	3. Continuous staff involvement in planning
Yes No ?	4. Efficient and effective support for staff training and implementation
Yes No ?	5. Continuous monitoring of fidelity of implementation and progress
Yes No ?	6. Regular and effective staff acknowledgements for participation and accomplishments
Yes No ?	7. Team coordinated and managed implementation
<i>Continuous Evaluation Fidelity of Implementation and Outcome Progress</i>	
Yes No ?	1. Team- and data-based decision making and planning
Yes No ?	2. Relevant and measurable outcome indicators
Yes No ?	3. Efficient input, storage, and retrieval of data
Yes No ?	4. Effective, efficient, and informative visual displays
Yes No ?	5. Regular data review
Yes No ?	6. Benchmarks and data-decision rules for determining responsiveness and non-responsiveness
Yes No ?	7. Continuous monitoring of fidelity of implementation and progress

of intervention implementation integrity or accuracy, and (e) measures of student behavior that are linked to local behavior norms and expectations. The features of this curriculum have been organized into a worksheet and action planning tool that provides school leadership teams a structure for identifying what is in place and what needs to be developed in both academic and social behavior supports (Table 3). For behavior support, the focus could be on school-wide, classroom, or other intact organizational unit (e.g., grade level team, learning community, alternative program). In addition, the academic section is organized by academic content area or department (e.g., literacy, numeracy, algebra, history, art, social studies, etc.). As a product, the contents of the table would present a continuum of evidence-based practices that are supported by the key elements of RtI.

TABLE 3
Continuum of Behavioral Intervention Tiers

Behavior Instructions

1. Select organizational unit: ☐ School-wide ☐ Classroom ☐ Other _____
2. Select evidence-based interventions and practices that address the behavior support needs of students represented in each tier.
3. Establish integrated link of interventions and practices within and across tiers by developing (a) measures for tracking relevant student behavior, (b) data decision rules that move students within and between tiers, (c) strategies for assessing and maintaining high degrees of implementation accuracy, and (d) procedures for continuous evaluation of implementation accuracy and student responsiveness.

<i>TIER</i>	<i>Primary Tier</i>	<i>Secondary Tier</i>	<i>Tertiary Tier</i>
Interventions and Practices	• • • • • •	• • • • • •	• • • • • •
Student Behavior Measure			
Data Decision Rule			
Implementation Accuracy			
Continuous Evaluation			

TABLE 3 (Continued)
Continuum of Academic Intervention Tiers

Academic Instructions

1. Select organizational unit: ☐ School-wide ☐ Classroom ☐ Other _____
2. Select academic curriculum area: ☐ Literacy ☐ Numeracy ☐ Social Studies ☐ Physical Education
☐ Music ☐ Art ☐ Other _____
3. Select evidence-based interventions and practices that address the academic support needs of students represented in each tier.
4. Establish integrated link of interventions and practices within and across tiers by developing (a) measures for tracking relevant student performance, (b) data decision rules that move students within and between tiers, (c) strategies for assessing and maintaining high degrees of implementation accuracy, and (d) procedures for continuous evaluation of implementation accuracy and student responsiveness.

<i>TIER</i>	<i>Primary Tier</i>	<i>Secondary Tier</i>	<i>Tertiary Tier</i>
Interventions and Practices	• • • • • •	• • • • • •	• • • • • •
Student Academic Measure			
Data Decision Rule			
Implementation Accuracy			
Continuous Evaluation			

CONCLUSION AND SUMMARY

The purpose of this article was to present our perspective on the defining features of RtI and the similarities and differences between RtI and SWPBS, both of which have conceptual and practical links to IDEA and NCLB. We concluded that the initial purpose of RtI has expanded from a focus on screening and improved outcomes for students with LD to a general approach for improving instructional decision making for all students. As an approach or framework, RtI represents a "packaging" or bringing together of a number of best-practice approaches that have

historical roots in education and school psychology—prereferral and teacher assistance teaming, curriculum-based measurement, and behaviorally based consultation and problem solving.

Although parallel in development, we described a similar evolution of SWPBS but with a focus on students with problem social behavior. SWPBS provides a framework, like RtI, comprised of a behaviorally oriented conceptual foundation that has been enhanced by contributions from applied behavior analysis and positive behavior support. Many of the practices and systems of SWPBS are similar in nature to those of RtI; for example, universal screening, continuum of scientifically based behavioral interventions, data-based and team-driven decision-making structures, intervention integrity measures, and direct student performance measures. SWPBS is guided by an integration of data-based decision making, measurable outcomes, evidence-based practices, and systems for accurate and sustained implementation.

Implementation of SWPBS into the overarching RtI process is not without its challenges. First, school leadership teams will not be able to simply add SWPBS to their current efforts because time and resources are already overextended. Instead, a school-wide programmatic audit will be necessary to identify which programs need to be (a) eliminated because they are not producing desired effects, (b) modified because they are not culturally or contextually appropriate, (c) downsized because they have achieved a desired outcome, and/or (d) combined with or integrated within another initiative that has a similar outcome goal. Second, professional development will need to be shifted from a traditional one-time, one-shot in-service format to one in which ongoing implementation support is continuous and embedded within the working routines of the school. Third, RtI and SWPBS can not be viewed as special education-based initiatives, only used as a means for identifying students with disabilities. Instead, all students will need to be considered the responsibility of the whole school. Finally, SWPBS implementation will not sustain itself. We are learning that SWPBS implementation occurs in familiar phases: (a) initial adoption and trial implementation with fidelity (1 year), (b) full implementation commitment (1–2 years), and (c) self-sustaining and continuously regenerating (2–4 years) (Fixsen, Blase, Friedman, & Wallace, 2005; McIntosh, Horner, & Sugai, 2009; Sugai, Horner, & McIntosh, 2008), and this implementation requires systemic district supports in the form of active leadership participation, coaching and facilitation, localized training expertise, ongoing evaluation, political support and implementation visibility, and recurring institutional funding (Center on PBIS, 2005).

In sum, RtI provides an excellent umbrella of guiding principles for improved assessment and intervention decision making. SWPBS is an example of the application of these principles to the challenge of establishing formal systems of behavior support for all students school- and classroom-wide. To guide SWPBS implementation, we provided a self-assessment for teaming, agreements, data-based action planning, accurate implementation, and evaluation for school and leadership implementation teams. In the end, the goal is to develop an integrated continuum of behavioral interventions and practices that is effective, efficient, relevant, and durable. If this goal is achieved, we would hope to hear these statements:

- *"I want my children to experience instruction that is organized and operated within a Response-to-Intervention framework."*
- *"Our Academic and Social Behavior Supports Leadership team meets on the 2nd Tuesday and 4th Wednesday of each month to review which students are progressing well and which ones need a tweak in their instructional and behavioral programming to be successful."*

- "School-wide Positive Behavior Support is an excellent example of how the Response-to-Intervention framework can be applied to improving school discipline and classroom management."
- "The Response-to-Intervention approach provides additional information for identifying students whose behaviors are not responding to our best academic and social behavior interventions, which also improves our special education decision making."

REFERENCES

- Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1, 91-97.
- Barnett, D. W., Daly, E. J., Jones, K. M., & Lentz, F. E. (2004). Response-to-intervention: Empirically based special service decisions from single-case designs of increasing and decreasing intensity. *The Journal of Special Education*, 38, 66-79.
- Bergan, J. R., & Kratochwill, T. R. (1990). *Behavioral consultation and therapy*. New York: Plenum Press.
- Bradley, R., Danielson, L., & Doolittle, J. (2007). Responsiveness to intervention: 1997 to 2007. *Teaching Exceptional Children*, 39(5), 8-12.
- Bradley, R., Danielson, L., & Hallahan, D. P. (Eds.) (2002). *Identification of learning disabilities: Research to practice*. Mahwah, NJ: Erlbaum.
- Bradshaw, C. P., Koth, C. W., Bevans, K. B., Ialongo, N., & Leaf, P. J. (2008). The impact of school-wide positive behavioral interventions and supports (PBIS) on the organizational health of elementary schools. *School Psychology Quarterly*, 23, 462-473.
- Bradshaw, C. P., Koth, C. W., Thornton, L. A., & Leaf, P. J. (in press). Altering school climate through school-wide Positive Behavioral Interventions and Supports: Findings from a group-randomized effectiveness trial. *Prevention Science*.
- Brown-Chidsey, R. (Ed.) (2005). *Assessment for intervention: A problem solving approach*. New York: Guilford.
- 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, 381-394.
- Carr, E. G., Dunlap, G., Horner, R. H., Koegel, R. L., Turnbull, A. P., Sailor, W., et al. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions*, 4, 4-16.
- Center on Positive Behavioral Interventions and Supports (2005). SWPBS Implementation Blueprint. University of Oregon: Author. Available at www.pbis.org
- Chalfant, J. C., Pysh, M. V., & Moultrie, R. (1979). Teacher assistance teams: A model for within-building problem solving. *Learning Disability Quarterly*, 2, 85-96.
- Christ, T. J., Burns, M. K., & Ysseldyke, J. E. (2005). Conceptual confusion within response-to-intervention vernacular: Clarifying meaningful differences. *Communiqué*, 34, 1-2.
- Colarusso, R. P. (1987). Diagnostic-prescriptive teaching. In M. C. Wang, M.C. Reynolds, & H. J. Walberg (Eds.), *Handbook of special education: Research and practice* (pp. 155-166). Elmsford, NY: Pergamon Press.
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis* (2nd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Deno, S. L. (1985). Curriculum-based measurement: The emerging alternative. *Exceptional Children*, 52(3), 219-232.
- Deno, S. L., Fuchs, L. S., Marston, D., & Shin, J. (2001). Using curriculum-based measurement to establish growth standards for students with learning disabilities. *School Psychology Review*, 30, 507-524.
- Dunlap, G., Carr, E. G., Horner, R. H., Zarcone, J., & Schwartz, I. (2008). Positive behavior support and applied behavior analysis: A familial alliance. *Behavior Modification*, 32, 682-698.
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: Synthesis of the literature*. Tampa, FL: National Implementation Research Network.
- Fuchs, L. S. (2003). Assessing intervention responsiveness: Conceptual and technical issues. *Learning Disabilities Research and Practice*, 18, 172-186.

- Fuchs, L. S., & Fuchs, D. (1998). Treatment validity: A unifying concept for reconceptualizing the identification of learning disabilities. *Learning Disabilities Research & Practice, 13*, 204-219.
- Fuchs, L. S., & Fuchs, D. (1999). Monitoring student progress toward the development of reading competence: A review of three forms of classroom-based assessment. *School Psychology Review, 28*(4), 659-671.
- Fuchs, D., Fuchs, L. S., & Compton, D. L. (2004). Identifying reading disability by responsiveness-to-instruction: Specifying measures and criteria. *Learning Disability Quarterly, 27*, 216-227.
- Fuchs, L. S., Fuchs, D., & Speece, D. L. (2002). Treatment validity as a unifying construct for identifying learning disabilities. *Learning Disability Quarterly, 25*, 33-46.
- Fuchs, D., Mock, D., Morgan, P. L., & Young, C. L. (2003). Responsiveness-to-intervention: Definitions, evidence, and implications for learning disabilities construct. *Learning Disabilities Research and Practice, 18*, 157-172.
- Graden, J. L. (1989). Redefining "prereferral" intervention as intervention assistance: Collaboration between general and special education. *Exceptional Children, 56*, 227-231.
- Graden, J. L., Casey, A., & Christenson, S. L. (1985). Implementing a prereferral intervention system: Part 1. The model. *Exceptional children, 57*, 377-387.
- Gresham, F. M. (2005). Response to intervention: An alternative means of identifying students as emotionally disturbed. *Education and Treatment of Children, 28*, 328-344.
- Gresham, F. M. (2002). Responsiveness to intervention: An alternative approach to the identification of learning disabilities. In R. Bradley, L. Danielson, & D. P. Hallahan (Eds.), *Identification of learning disabilities: Research to practice* (pp. 467-519). Mahwah, N.J.: Erlbaum.
- Gresham, F. M., Reschly, D. J., Tilly, W. D., Fletcher, J., Burns, M., Prasse, D., et al. (2005). A response to intervention perspective. *The School Psychologist, 59*(1), 26-33.
- Horner, R., Sugai, G., Smolkowski, K., Todd, A., Nakasato, J., & Esperanza, J. (2009). A randomized control trial of school-wide positive behavior support in elementary schools. *Journal of Positive Behavior Interventions, 11*, 133-145.
- Horner, R. H., & Sugai, G. (2009). Is school-wide positive behavior support an evidence based practice? Center on Positive Behavioral Interventions and Support. Retrieved from www.pbis.org.
- Idol, L. (1983). *Special educator's consultation handbook*. Austin: Pro-Ed.
- Ikeda, M., & Gustafson, J. K. (2002). *Heartland AEA 11's problem solving process: Impact on issues related to special education* (Research Rep. No. 2002-01). Johnston, IA: Heartland Area Education Agency 11.
- Individuals with Disabilities Education Improvement Act of 2004, Pub. L. 108-466.
- Kavale, K. A., & Spaulding, L. S. (2008). Is response to intervention good policy for specific learning disabilities. *Learning Disabilities Quarterly, 23*, 169-179.
- Koegel, L. K., Koegel, R. L., & Dunlap, G. (Eds.) (1996). *Positive behavioral support: Including people with difficult behavior in the community*. Baltimore: Brookes.
- Kovaleski, J. F. (2002). Best practices in operating pre-referral intervention teams. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology IV* (pp. 645-655). Bethesda, MD: National Association of School Psychologists.
- Kratochwill, T. R., Elliott, S. N., & Callan-Stoiber, K. (2002). Best practices in school-based problem solving consultation. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology IV* (pp. 583-608). Washington, D.C.: National Association of School Psychologists.
- Lewis, T. J., & Sugai, G. (1999). Effective behavior support: A systems approach to proactive school-wide management. *Focus on Exceptional Children, 31*(6), 1-24.
- Lindsley, O. R. (1990). Precision teaching: By teachers for children. *Teaching Exceptional Children, 22*(3), 10-15.
- Marston, D., Muyskens, P., Lau, M., & Canter, A. (2003). Problem-solving model for decision making with high-incidence disabilities: The Minneapolis experience. *Learning Disabilities Research & Practice, 18*, 187-200.
- McIntosh, K., Horner, R. H., & Sugai, G. (2009). Sustainability of systems-level evidence-based practices in schools: Current knowledge and future directions. In W. Sailor, G. Dunlap, & G. Sugai (Eds.), *Handbook on positive behavior support* (pp. 327-352). New York: Springer.
- No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002).
- Pugach, M. C., & Johnson, L. J. (1989). Prereferral interventions: Progress, problems, and challenges. *Exceptional Children, 56*, 217-226.
- Safran, S. P., & Oswald, K. (2003). Positive behavior supports: Can schools reshape disciplinary practices. *Exceptional Children, 69*, 361-373.
- Sailor, W., Dunlap, G., Horner, R. H., & Sugai, G. (Eds.) (2009). *Handbook of positive behavior support*. New York: Springer.

- Scanlon, R. G. (1978). Diagnostic-prescriptive teaching progress and problems. Philadelphia: Research for Better Schools, Inc.
- Sugai, G., & Horner, R. H. (in press). School-wide positive behavior support: Establishing a continuum of evidence based practices. *Journal of Evidence-based Practices for Schools*.
- Sugai, G., & Horner, R. H. (2002). The evolution of discipline practices: School-wide positive behavior supports. *Child and Family Behavior Therapy*, 24, 23-50.
- Sugai, G., & Horner, R. H. (2008). What we know and need to know about preventing problem behavior in schools. *Exceptionality*, 16, 67-77.
- Sugai, G., & Horner, R. H. (2009). Defining and describing school-wide positive behavior support. In W. Sailor, G. Dunlap, G. Sugai, & R. Horner (Eds.), *Handbook of positive behavior supports* (pp. 307-326). New York: Springer.
- Sugai, G., Horner, R. H., & McIntosh, K. (2008). Best practices in developing a broad-scale system of support for school-wide positive behavior support. In A. Thomas & J. P. Grimes (Eds.), *Best practices in school psychology* (Vol. 3, pp. 765-780). Bethesda, MD: National Association of School Psychologists.
- Sugai, G., Horner, R. H., Dunlap, G., Hieneman, M., Lewis, T. J., Nelson, C. M., Scott, T., Liaupsin, C., Sailor, W., Turnbull, A. P., Turnbull, H. R., III, Wickham, D. Reuf, M., & Wilcox, B. (2000). Applying positive behavioral support and functional behavioral assessment in schools. *Journal of Positive Behavioral Interventions*, 2, 131-143.
- Sugai, G. M., & Tindal, G. (1993). *Effective school consultation: An interactive approach*. Pacific Grove, CA: Brooks/Cole.
- Taylor-Greene, S., Brown, D., Nelson, L., Longton, J., Gassman, T., Cohen, J., Swartz, J., Horner, R. H., Sugai, G., & Hall, S. (1997). School-wide behavioral support: Starting the year off right. *Journal of Behavioral Education*, 7, 99-112.
- Vaughn, S., Linan-Thompson, S., & Hickman, P. (2003). Response to instruction as a means of identifying students with reading/learning disabilities. *Exceptional Children*, 69, 391-409.
- Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., Bricker, D., & Kaufman, M. J. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders*, 4, 193-256.
- White, O. R. (1986). Precision teaching—Precision learning. *Exceptional Children*, 52, 522-534.
- White, O. R., & Haring, N. R. (1980). *Exceptional teaching* (2nd ed.). Columbus, OH: Merrill.
- Wolery, M. R., Bailey, D. B., Jr., & Sugai, G. M. (1988). *Effective teaching: Principles and procedures of applied behavior analysis with exceptional students*. Boston, MA: Allyn & Bacon.
- Ysseldyke, J. E., & Salvia, J. (1974). Diagnostic-prescriptive teaching: Two models. *Exceptional Children*, 41, 181-185.
- Zins, J. E., Graden, J. L., & Ponti, C. R. (1988). Prereferral intervention to improve special service delivery. *Special Services in the Schools*, 4, 109-130.