The Complex Ecology of Response to Intervention

April 2011

National Center on Response to Intervention
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About the National Center on Response to Intervention

Through funding from the U.S. Department of Education's Office of Special Education Programs, the American Institutes for Research and researchers from Vanderbilt University and the University of Kansas have established the National Center on Response to Intervention. The Center provides technical assistance to states and districts and builds the capacity of states to assist districts in implementing proven response to intervention frameworks.

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This document was produced under U.S. Department of Education, Office of Special Education Programs Grant No. H326E070004 to the American Institutes for Research. Grace Zamora Durán and Tina Diamond served as the OSEP project officers. The views expressed herein do not necessarily represent the positions or policies of the Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service or enterprise mentioned in this publication is intended or should be inferred. This product is public domain. Authorization to reproduce it in whole or in part is granted. While permission to reprint this publication is not necessary, the citation should be: National Center on Response to Intervention (April 2011). *The Complex Ecology of Response to Intervention*. Washington, DC: U.S. Department of Education, Office of Special Education Programs, National Center on Response to Intervention.

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Contents

About this Document

The following papers were presented at a structured poster session, "The Complex Ecology of Response to Intervention," at the American Educational Research Association 2010 Annual Meeting in Denver, Colorado.

The papers provide an overview of the current state of RTI in terms of research and implementation. Additional topics covered include information on the overall RTI framework, screening and progress monitoring within RTI, delivery of instructional interventions within a RTI system, SLD identification and RTI, implementation of RTI across states, and RTI as it relates to special populations, including minority students, English language learners, middle-school students, and high-school students.

What is Response to Intervention?

Authors: Kathryn Drummond, American Institutes for Research, Allison Gandhi, American Institutes for Research, and Amy Elledge, American Institutes for Research

What is Response to Intervention?

Response to intervention, or RTI, is a student-centered framework that uses problem-solving and research-based methods to identify and address learning and behavior difficulties in students (Johnson, Mellard, Fuchs, & McKnight, 2006). Key components of a rigorous RTI framework include a school-wide, multi-level instructional and behavioral system for preventing school failure, universal screening, monitoring student performance with continuous and frequent progress monitoring, and data-based decision making for instruction, movement within the multi-level system, and disability identification (in accordance with state law). These components are conducted in combination with high quality, culturally and linguistically sound instruction. Implementing RTI in this comprehensive manner will contribute to a school improvement model that prevents the escalation of learning or behavioral challenges, improves instructional quality, assists with disability identification, and provides all students with the best opportunities to succeed in school (National Center on Response to Intervention [NCRTI], 2010).

The purpose of this paper is to present components of RTI that the NCRTI has found to be essential when implementing an RTI framework. These components were identified through an extensive review of the literature on RTI, discussions with experts in the field of intervention research, and communications with practitioners implementing RTI frameworks.

School-wide Multi Level System

When, in accordance with an RTI framework, educators use increasingly intensive instruction, they are increasing the likelihood that more children will be responsive to that instruction. In the RTI framework, the increasingly intensive instructional interventions are referred to as levels. The first level, the preventative or primary level, involves whole-group instruction and universal screening. This level generally addresses the learning needs of approximately 80% of students. The second level,

typically referred to as secondary intervention, involves targeted, small-group interventions that are more intensive and evidence-based, and meets the needs of approximately 15% of students. These interventions should be implemented with fidelity and students' progress should be monitored regularly. The third level, or tertiary intervention, offers the most intensive instructional interventions and serves about 5% of students. This most intensive level is individualized to target each student's area(s) of need. Interventions at this level are typically longer in duration, conducted with smaller groups of students, and with more frequent sessions. As with the secondary level, interventions are implemented with fidelity and student progress is monitored regularly. The greatest variation among implementers of RTI lies in this most intensive level. Very little specific research exists as to what should comprise this level. Some frameworks consider this level to be special education, while other frameworks indicate that it is problem-solving (Berkeley, et al., 2009; Fuchs, Fuchs, & Stecker, 2010).

Universal Screening

NCRTI defines universal screening as brief assessments that are valid, reliable, and demonstrate diagnostic accuracy for predicting which students will develop learning or behavioral problems. They are conducted with all students to identify those who are at risk of academic failure and, therefore, need more intensive intervention to supplement primary prevention (i.e. the core curriculum) (NCRTI, 2010).

Monitoring Student Progress

Student progress monitoring involves regular, repeated measurement of performance to inform the instruction of individual students in general and special education in grades K-8 (NCRTI, 2010). Use of data to frequently monitor student progress and make instructional decisions will ensure that students are being instructed appropriately (Fuchs & Fuchs, 1998; Compton et al., 2006). In the absence of a positive response to intensive, research-based interventions that are implemented with fidelity enable instructors to be more confident that students are struggling due to a disability or other factor rather than because of inappropriate or poor instruction (Fletcher, Coulter, Reschly, & Vaughn, 2004).

Data-Based Decision Making

The data from regular student progress monitoring are used by instructors to assess students' performance over time, quantify student rates of improvement or responsiveness to instruction, to evaluate instructional effectiveness, and, for students who are least responsive to high-quality instruction, to formulate effective individualized programs (NCRTI, 2010).

Current Challenges

RTI is not without its challenges and critics. More research on the efficacy of overall RTI models is still needed (Reynolds & Shaywitz, 2009), and a challenge to this is that large-scale RTI models do not lend themselves well to technically sound research (Dexter, Hughes, & Farmer, 2008). Because most research on RTI and tiered interventions tends to focus on reading at the primary grade levels, there is a need for studies that address higher level reading skills, other content areas, and middle and high school students (Division for Learning Disabilities, 2007; Fuchs & Deshler, 2007). Additionally, definitive information on how RTI affects rate of learning disability identification is unknown (Fuchs & Fuchs, 2009). Overall, however, there is great promise of the RTI approach and increased interest and use of the framework by states and districts since the 2004 reauthorization of the Individuals with Disabilities Education Improvement Act (IDEA) (Berkeley, et al., 2009).

As a national technical assistance (TA) center charged with assisting states and territories to implement best practices related to RTI, the NCRTI has a unique perspective on challenges and issues faced by states. Specifically, states find that RTI is a complex framework, one with many components that cannot be implemented quickly. As a result, many states and sites are implementing some or most components, but very few are implementing a complete framework. In addition, states are dealing with a number of TA providers who all want to assist the state with RTI implementation. In this situation, NCRTI staff found it helpful to focus on the needs of the state and then to identify and coordinate the most appropriate TA providers that align with those needs. In addition to working directly with states, the NCRTI receives questions from the field. Perhaps the question received most often deals with the number of tiers that an RTI framework or model is "supposed" to have. The NCRTI believes that tiers of intervention should be classified under one of the three levels of prevention: primary, secondary, or tertiary. Within this

three-level prevention system, schools may configure their RTI frameworks using 3, 4, or more tiers of intervention. In choosing a number of tiers for their RTI framework, practitioners should recognize that the greater the number of tiers, the more complex the framework becomes. The number of tiers is not as important as what happens within them.

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Critical Issues in State Implementation of Response to Intervention

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In November 2008, representatives from ten state education agencies (SEA) joined in a discussion moderated by the National Center on Response to Intervention (NCRTI): California, Iowa, Kansas, Minnesota, Missouri, New Mexico, New York, Oregon, Pennsylvania, and Virginia. These states represented NCRTI intensive technical assistance states, State Implementation of Scaling-up Evidence-based Practices grant awardees, and states of special interest (e.g., states with high minority populations).

The focus group discussion was structured around six topics: (1) operational definition of response to intervention (RTI), (2) SEA-level RTI evaluation, (3) evidence of RTI effectiveness, (4) special education in RTI, (5) RTI at the secondary level, and (6) coordination across state agencies. For each topic, the SEAs discussed how important the topic is in the state, whether the state's regulations address the topic and the direction the state is going, or top challenges related to the topic. They also talked about how the state addresses funding needs and allocates resources for each topic.

Common Themes

Several issues emerged throughout topical discussions:

1. ***Fidelity:*** The state representatives expressed the need for better fidelity tools to ensure that professional development, TA support, and coaching on RTI are consistent across state and local levels.
2. ***Higher education:*** The representatives expressed concern about how pre-service teacher preparation do not relate to the needs of schools and classrooms. Most IHEs are not preparing teachers for tiered systems of instruction.
3. ***Systems change:*** The representatives viewed RTI as a systems-change process. They are trying to illustrate to the local level that the framework is a

district-wide as well as school-wide process to improve outcomes for all students and that it takes time to fully implement.

4. ***Leadership:*** State representatives emphasized the need for knowledge, support, and strong leadership in district and building administrators. They cited leadership as the most fundamentally important attribute for implementation and scaling up.

5. ***Evaluation:*** Discussions focused on how to accurately evaluate the unique or added effect of RTI. The representatives identified the need for a mechanism that determines whether RTI—and not other programs or initiatives—is responsible for improvements in student outcomes.

6. ***Special education/general education collaboration:*** Most RTI programs within the states are led by and housed in special education. The representatives discussed the need for stronger general education support, with most expressing a need for both general education and special education to take ownership and work collaboratively.

7. ***Special education:*** The ten states have adopted the 2004 Individuals with Disabilities Education Act (IDEA) regulations and all are actively promoting an RTI framework to help with the evaluation process in learning disability (LD) identification.

8. ***Technical assistance:*** Nine of the ten states provide or are starting to develop technical assistance for local education agencies (LEAs).

9. ***Local control:*** Implementing RTI with fidelity is very important to these states; however, because of local control nine of the ten states cannot require school districts to implement RTI. One participant underscored that the state department can only offer guidance and assistance and suggest best practices.

Examples of Statewide Scale-up

Implementation science is a relatively new field of research and, thus, many states have traditionally depended on previous experiences and available technical assistance for scaling-up evidence-based practices (National Implementation Research Network [NIRN], 2008). To assist states, Fixsen and his colleagues (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; NIRN, 2008) have been refining core implementation components and stages of implementations to support states in

statewide scale-up of innovations such as RTI. Below, we use brief descriptions to illustrate implementation activities in several states.

In Florida, beginning in 2006 seven LEAs with 34 pilot schools participated in training and received technical assistance through a collaborative project between the Florida Department of Education and University of South Florida to develop demonstration sites and provide a data-based evaluation of implementation in K-12 settings. During initial implementation, the state provided competitive funds of up to $100,000 per year to LEAs for three years to support approximately one coach per three buildings. Activities in the demonstration districts included assessing effectiveness of tier one of the three-tiered model and making indicated changes. School leadership currently participates on implementation teams, attends training and monitors the integrity of classroom interventions. Most Florida LEAs have committed to various on-going training efforts that include school-based team building, district-based leadership and planning through on-line modules, and training-of-trainers to build capacity (Burdette & Etemad, 2009).

In Oklahoma, RTI remains a special education initiative although efforts are being made for broader general education implementation. Through recommendations of a state RTI special education task force, the state hired a full time RTI coordinator and developed policy for learning disability eligibility. Using special education funds, the state provides limited onsite training to 21 pilot sites in 15 districts. With the support of the RTI leadership team and NCRTI, the state is developing an RTI guidance document, implementation resources, training material, and training opportunities. For three years, the state offers a three-day RTI institute each summer for interested LEAs and schools. Team attendance is recommended but not required.

In South Carolina, a full-time RTI coordinator oversees the program installation, or planning stage, for initial implementation. The coordinator, who is housed in general education but funded through special education, worked with stakeholders on the state leadership team and NCRTI over the past year to develop an RTI guidance document. South Carolina is currently soliciting up to eight elementary schools to serve as pilot sites. The goal is for the sites to become RTI demonstration sites in reading in 3 years. The state has also provided 3-day professional development opportunities on RTI and reading to teachers at no cost using general education funds. Similar training opportunities will be offered to administrators during the spring or summer of 2010.

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Identifying and Utilizing Screening and Progress Monitoring Tools

Authors: Allison Gandhi, American Institutes for Research, and Whitney Donaldson, American Institutes for Research

Purpose

The purpose of this paper is to describe the technical criteria, process, and findings from a rigorous review that identifies valid and reliable tools for screening students for academic difficulty and monitoring their academic progress. Research on response to intervention (RTI) recommends that schools conduct universal screening, combined with short-term progress monitoring (weekly for at least 5 weeks) to identify students in need of preventative intervention. This should be followed by ongoing progress monitoring (at least monthly over the course of the school year) to assess the extent to which students are responding to targeted interventions over time (Fuchs et al., 2007; Compton et al., 2006). When teachers use progress monitoring for instructional decision-making purposes, students experience higher achievement, teacher decision-making improves, and students tend to be more aware of their performance (Fuchs & Fuchs, 1997).

In order to make informed instructional decisions based on data, an effective data collection tool must be used. Whether it is for universal screening or ongoing progress monitoring, the tool must be valid and reliable to collect accurate data that can be analyzed and compared across time to determine a student's responsiveness. The Technical Review Committee (TRC) review process sponsored by the National Center on Response to Intervention (NCRTI) has established rigorous standards for evaluating screening and progress monitoring tools, and has reviewed commercially-available tools against those criteria.

In 2009 and 2010, the NCRTI published results of its review of screening and progress monitoring tools. For each of the two separate TRC reviews, developers submitted their screening and progress monitoring tools in response to a call for tools issued by NCRTI. Developers completed detailed evaluation protocols with information on their tool, and then the TRCs, comprised of nationally renowned experts, rated each tool against specific criteria. The following sections describe

those criteria and the results of reviews on 21 screening and 47 progress monitoring tools that have been conducted to date.

Methods

The rating criteria were developed by each of the TRCs, during a full-day face-to-face meeting in which members discussed and came to consensus on operational definitions and appropriate standards of rigor for screening and progress monitoring tools. The individual TRCs then developed evaluation protocols and detailed rating rubrics based on these definitions and standards (see http://www.rti4success.org/index.php?option=com_content&task=view&id=1010&Itemid=161 for rating rubrics).

For ***screening,*** the TRC has developed the following operational definition:

> *Screening involves brief assessments that are valid, reliable, and evidence-based. They are conducted with all students or targeted groups of students to identify students who are at risk of academic failure and, therefore, likely to need additional or alternative forms of instruction to supplement the conventional general education approach.*

The evaluation protocol for screening is based on five technical criteria: (1) Classification Accuracy; (2) Generalizability; (3) Reliability; (4) Validity; and (5) Disaggregated Reliability, Validity, and Classification Data for Diverse Populations.

For ***progress monitoring,*** the TRC developed the following operational definition:

> *Progress monitoring is repeated measurement of academic performance to inform instruction of individual students in general and special education in grades K-8. It is conducted at least monthly to (a) estimate rates of improvement, (b) identify students who are not demonstrating adequate progress, and/or (c) compare the efficacy of different forms of instruction to design more effective, individualized instruction.*

The TRC on progress monitoring reviews submissions from tools that use either a general outcome measurement (GOM) or mastery measurement (MM) approach to progress monitoring. With GOM, alternate forms of the progress monitoring instrument are of comparable difficulty, representing the same construct; and progress toward a year-end goal is monitored. With MM, the objectives are

targeted for mastery changes. That is, criterion-referenced assessment on an objective continues with alternate forms of a test (each test has one type of item on it) until mastery is achieved. Then, a new objective that is next in the sequence is targeted for monitoring.

For GOMs, the TRC has established nine technical criteria: (1) Alternate forms; (2) Rates of Improvement Specified; (3) End-of-Year Benchmarks Specified; (4) Sensitivity to Student Improvement; (5) Reliability of the performance level score; (6) Reliability of the slope; (7) Validity of the performance level score; (8) Predictive validity for the slope of improvement; (9) Disaggregated Reliability and Validity Data. MMs are rated against six criteria: (1) Skill Sequence; (2) Sensitivity to Student Improvement; (3) Reliability; (4) Validity; (5) Pass/Fail Decisions; and (6) Disaggregated Reliability and Validity Data.

Results

Both the screening and progress monitoring TRCs have completed two full review cycles to date, which has resulted in a total of 21 screening tools and 47 progress monitoring tools now posted on NCRTI's screening and progress monitoring tools charts, respectively. Each submission was reviewed and first rated independently by one TRC member, and then jointly by a team of two TRC members. When TRC members requested additional evidence, developers were given a chance to respond. At the end of each review cycle, the full TRCs reviewed final ratings for all tools submitted.

The tools charts on the NCRTI website present the ratings, along with descriptive information, for each tool that completed the review process. For each of the criteria, tools are given a rating of "convincing evidence," "partially convincing evidence," "unconvincing evidence," or "no evidence." The tools charts can be viewed at:

- http://www.rti4success.org/chart/screeningTools/screeningtoolschart.html
- http://www.rti4success.org/chart/progressMonitoring/progressmonitoringtoolschart.htm

Each chart will be updated annually, following each new review cycle.

Significance

The NCRTI's TRC process assists educators and families in becoming informed consumers who can select screening and progress monitoring tools that best meet their individual needs. In addition to information about cost, implementation, and training requirements for each tool, the tools charts offer ratings that give an indication of the technical rigor of the tools. Tools that receive higher ratings are more likely to produce data that accurately and reliably capture a student's level of academic and instructional need, data that are critical for the effective implementation of RTI.

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Providing Effective Instructional Intervention within an RTI Framework

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Purpose

This paper discusses the role of evidence-based instructional interventions within a response to intervention (RTI) framework. First we describe how interventions vary across different levels of prevention, and then we present an overview of the evidence base on interventions.

Background

RTI is a multi-level prevention system designed to minimize risk for negative learning outcomes by responding quickly to learning difficulties. Although discussions in the field frequently refer to "tiers," we follow the convention of the National Center on RTI (National Center on Response to Intervention [NCRTI], 2010). NCRTI uses "levels" to refer to three prevention foci: primary *level*, secondary *level*, and tertiary *level*. The primary level is comprised of high quality core instruction along with differentiated practices and accommodations for some individual students; this level should meet the needs of most students. The secondary level target students who do not respond to instruction at the primary level. It includes intervention(s) of moderate intensity that address the learning or behavioral challenges of the most at-risk students. The tertiary level includes intervention(s) of increased intensity for students who show minimal response to secondary prevention. These interventions are individualized to meet very specific student needs (Fuchs & Fuchs, 2009).

Regardless of the level, all programs and interventions used in an RTI framework should be based on the best available research. Some programs are *evidence-based* in that they have been empirically-validated using a scientific, rigorous research design. That is, within a well-implemented study with an experiment or quasi-experimental design, the program was shown to improve results for

students. Other programs may be *research-based*. These may incorporate features that have been researched generally; however, the program itself has not been studied using a rigorous research design, as defined by the Elementary and Secondary Education Act (NCRTI, 2010).

Recent literature (e.g., Mellard & Johnson, 2007) suggests the following:

- At the primary level, many core programs are research-based, but few are actually evidence-based (Fuchs & Fuchs 2009).
- At the secondary level many educators use "standard protocol" interventions, which utilize particular procedures and/or training to ensure consistency. Some of these are evidence-based.
- At the tertiary level, instruction is highly intensive and individualized. The teacher uses a more intensive version of an intervention program (e.g., longer, more frequent sessions, smaller group size). If frequent progress monitoring indicates the student's rate of progress is insufficient, the teacher engages in a problem-solving process to modify intervention components. Therefore, while the base intervention may be evidence-based, the individualized use of the program may not.

Methods

For this literature review, we first examined research syntheses to identify evidence-based interventions that can help practitioners. Next, we looked at the larger literature base to identify the extent of evidence for interventions used in an RTI context.

Results

Several research syntheses report results on interventions that could be used at any level, though more research exists on the type of intervention typically used at the secondary level within an RTI framework. It is important to note that the studies in these syntheses report on interventions that could be used for RTI but the studies themselves were not conducted in an RTI context.

Direct Support—Evidence-Based

- The What Works Clearinghouse (WWC) (http://ies.ed.gov/ncee/wwc/) reports on the extent of evidence for programs that have been rigorously researched. The WWC also generates lists of interventions with insufficient evidence.
- The Best Evidence Encyclopedia (BEE) (www.bestevidence.org) reports findings on rigorously researched programs and strategies. The BEE also generates lists of interventions with insufficient evidence.
- The Center on Instruction (COI) has a report (http://www.centeroninstruction.org/files/Extensive%20Reading%20Interventions.pdf) that gives information on rigorously researched K-3 reading interventions, and includes only studies that focus on students with learning disabilities.
- NCRTI has convened a Technical Review Committee to review the technical rigor of studies evaluating instructional programs typically used at the secondary level of an RTI framework. Results are forthcoming (www.rti4success.org).

Indirect Support—Research-Based

- Several states (e.g., Oregon, Washington, Florida) have reviewed core and/or supplemental K-3 reading programs to determine what key areas of reading each addresses and whether they are research-based.

To date, the evidence base for interventions operating in the context of RTI is small. Several studies examined the effect of reading interventions on reading outcomes for English language learners in an RTI context. Two studies used a randomized controlled trial design. Of these, one found substantial and significant effects of three different reading programs on reading achievement measures (Lovett et al., 2008). The other found no significant effects of the multi-component reading intervention; the researchers hypothesized this was due to the sample's severe reading difficulties requiring intervention of considerably greater intensity than was provided (Denton et al., 2008). Another study, using a quasi-experimental design, identified small but statistically significant effects of brief supplemental instruction on English reading for Spanish-speaking kindergartners who performed poorly on a bilingual battery of phonological-processing tasks (Gerber et al., 2004).

Another reading-oriented study assessed early reading interventions for students with reading difficulties or disabilities. One study randomly assigned struggling first

grade readers to one of two supplemental reading intervention conditions or to the control group. Students who received the interventions performed better, on average, on multiple measures of reading (with average effect sizes ranging from 0.78 to 0.84), and exhibited significantly faster rates of learning than those in a typically achieving comparison group (Mathes et al., 2005). For math content, Fuchs et al. (2007) used a randomized control trial to assess the effects of two intensive remedial mathematics interventions on third-grade students with serious mathematics deficits. They found significant effects for the interventions on number combinations fluency and story-problem performance (with effect sizes ranging from 0.72 to 0.89).

Summary

A number of ongoing research syntheses report on the evidence base for specific interventions. However, looking at whether and how these interventions can be effective for improving educational outcomes in the larger context of a multi-level prevention system is an area of research need for the field.

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Response to Intervention in Middle Schools: Practices and Outcomes

Author: Sara Prewett, Kansas University

Purpose

In 2008–2009, research staff from the National Center on Response to Intervention (NCRTI) completed the first year of a multi-year, nation-wide examination of middle school sites implementing response to intervention (RTI). RTI is a school-wide prevention framework that facilitates school staff to make data-driven instructional decisions based on students' academic and behavioral needs (Canter, Klotz, and Cowan 2008). The purpose was to provide clarity about RTI implementation at the middle school level despite the unique challenges of secondary settings. We focused on schools' procedures for universal screening, progress monitoring, and tiered interventions, as well as data on student outcomes, policies, and implementation activities.

Methods

We use a multi-phase design in which we initially identified 81 middle schools that were potentially implementing an RTI model. We contacted 42 of the 81 schools, of which we interviewed 30 that met our selection criteria: implementation of universal school-wide screening, three levels of intervention, established progress monitoring practices for each intervention level, and established decision rules. We followed-up with 12 schools for additional interviews. Of those 12, we visited six schools to investigate student outcome data, conduct focus groups with school staff, observe tiered intervention classes, and investigate professional development activities.

Results

The 30 identified schools were at various stages in the RTI implementation process (exploration and adoption, initial implementation, full operation, innovation, and

sustainability) (Fixsen, Naoom, Blasé, Friedman, & Wallace; 2005). School populations ranged from 160 students to 1,370 students; implementation varied from less than one year to six years. We focused our work on the essential components of RTI, but it became clear that contextual factors are pivotal for successful implementation. We found that the key contextual factors that Fuchs and Deshler (2007) mentioned were reiterated by schools attempting RTI implementation: (a) continuous professional development, (b) administrators leading the implementation process, (c) district level support, (d) staff role redefinition, (e) staff were given time to understand the process, (f) systemic leadership in which staff is involved in implementation. Schools placed a strong emphasis on building the culture of RTI among staff members before attempting component implementation. All schools recommended starting small, with only one component, or with one grade or classroom as a pilot before scaling up to a school-wide model. While these elements are essential for the foundation of school-wide reform, we more deeply investigated the essential components of RTI.

All school had established universal-school wide screening. Most schools (60%) screen for both reading and math; 23% screen for reading, math, and writing, and most schools (57%) screen three times per year.

Establishing systemic progress-monitoring practices was more challenging for the schools:, such as identifying appropriate measures for interventions and establishing the appropriate frequency. Generally, progress is monitored less frequently at the secondary level than at the tertiary level—the longest cycle is once per month (39%), while 30% of schools monitor progress once a week or more frequently. At the tertiary level, the most common frequency for monitoring progress is weekly (39%), while 13% monitor progress daily or twice per week.

Most schools in the study do not keep data on their prevalence rates. On average, schools placed about 22% of their enrollment in secondary intervention classes. The percentage of students receiving secondary level services ranged from 8% to 38% of the school population. Overall, this is higher than the 15% cited in the literature recommendations for elementary schools. Schools with such high percentages may have as a school-wide curriculum problem, or incoming students from elementary schools may have gaps in their background knowledge.

Few schools place students directly at the tertiary level without first applying a secondary level intervention. For the tertiary level, the prevalence rates range from

less than 1% to 18%, with an average of 7% of schools' enrollment in tertiary level services; this is closer to the literature's suggestion of 5% enrollment in the most intensive, individualized services.

Case Study

Each of the six schools we visited had the essential components implemented. The following case study illustrates how one middle school has succeeded in implementing RTI and is now in the sustainability phase of Fixsen, et al's (2005) stages. This middle school began implementation six years ago in the 2003–2004 school year. Prior to implementation at the middle school level, the principal had implemented RTI at the elementary school level in the same district. This southwestern suburban school houses grades 6–8, has a population of approximately 725 students, and has an established three-tiered model for academics and behavior.

This middle school has all essential components; universal school-wide screening, progress monitoring, multi-level interventions and data-based decision making in place with fidelity (see Exhibit 1). When staff began implementation, they had a self-described "math problem": only 23% of their 8th grade students were proficient in math. Their RTI initiative focused on general education math, reading and writing. Two years after implementation, the school consistently met AYP standards and has increased proficiency of all groups of students in these three content areas (see Exhibit 2).

They screen all grades using curriculum-based measures (CBMs) in reading (maze), writing (correct writing sequence), and math (mixed basic facts). The RTI team makes instructional decisions based on the pre-determined cut scores.

When students are identified as "at-risk," interventions are applied in the primary level before students receive more intensive interventions at the secondary level. When progress-monitoring data indicate non-responsiveness, students receive a secondary level intervention. Various techniques are used to intensify secondary level instruction: small, homogenous classes of students with similar instructional needs, expert teachers, and increasing the frequency and duration of instruction. If progress monitoring data indicate that students are non-responsive, the leadership team can refer the student for a specific learning disability evaluation. The tertiary level is special education instruction.

Conclusion

In conclusion, although the research is still uncertain about the evidence of RTI effectiveness at the secondary level, RTI is a possible, effective school-wide framework for middle schools.

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Supporting Materials

Exhibit 1

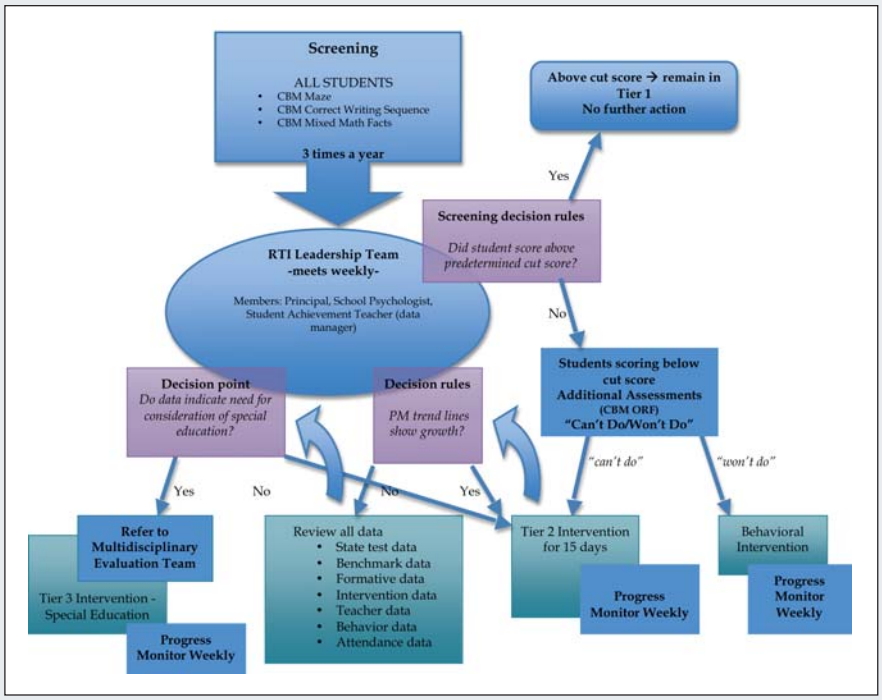
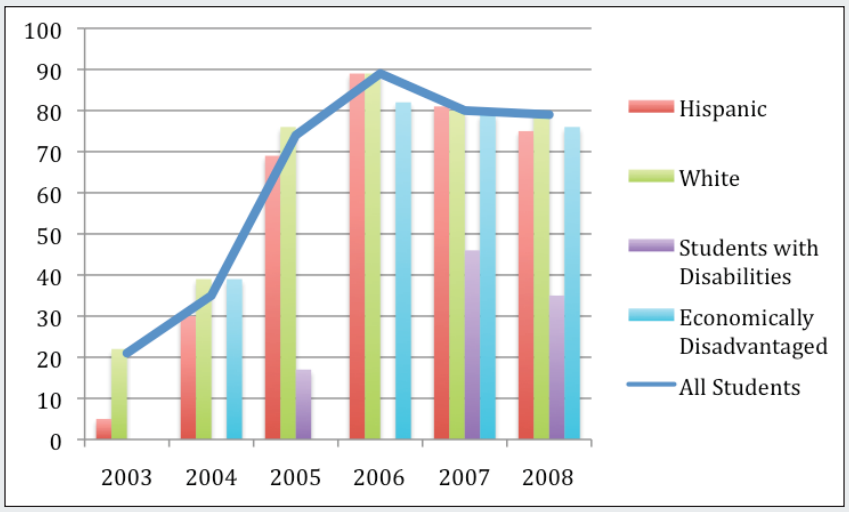


Exhibit 2

8th Grade % Meeting or Exceeding Standards in Math



High School Response to Intervention

Authors: Tessie Rose, American Institutes for Research, and Jenny Scala, American Institutes for Research

Purpose

Response to intervention (RTI) is a potentially powerful framework for organizing, allocating, and evaluating educational resources to meet the instructional needs of all students. Existing RTI research is grounded primarily in elementary schools' experiences. Research and professional wisdom suggest that RTI conceptualization, implementation, and translation to practice differ greatly between elementary and secondary school models.

The National Center on Response to Intervention (NCRTI) states that RTI "includes a combination of high quality, culturally and linguistically responsive instruction, assessment, and evidence-based interventions" (National Center on Response to Intervention, 2010). Additionally, the NCRTI has determined that there are four essential components of RTI: a school-wide, multi-level instructional and behavioral system for preventing school failure; screening; progress monitoring; and data-based decision making (NCRTI, 2010).

In order to increase understanding of RTI's application in high schools, the High School Tiered Interventions Initiative (HSTII)—a collaborative project among three federally-funded technical assistance centers—investigated emerging and current practices of tiered interventions and RTI at the high school level. This investigation assumes that the essential components of an RTI framework commonly implemented in elementary schools are applicable to high school but the actual implementation may look different due to the unique culture, structure, and organization of high schools (Duffy, 2007).

Methods

Fifty-one high schools were nominated by Regional Comprehensive Centers, Regional Resource Centers, and select state education agency personnel to

participate in the project. Of these, 20 schools agreed to participate in 45-minute phone interviews (see Exhibit 3). The degree of RTI implementation in these 20 schools varied significantly. Differences existed in the length of implementation; the areas in which it was implemented (academics, behavior, or both); and the decision-making protocol (standard treatment protocol, problem-solving, or a hybrid). The schools varied in demographics, student population size, and school schedules. After each interview, schools reviewed the interview summaries and HSTII staff incorporated school feedback. Eight schools representing various implementation models were then selected for site visits.

Findings

All schools observed implemented either a three- or four-tiered framework to increase student achievement. Schools implemented the tiered system of support based on their needs. Additionally, the school culture and other contextual factors influenced the development of a tiered intervention framework.

Of the eight schools observed, two solely focused on supporting 9th and 10th grade students while the other schools supported students in all grade levels. Several schools provided interventions for English language learners (ELLs) and/or implemented the Positive Behavioral Interventions and Supports (PBIS) framework. Three of the schools visited provided supports in reading, math, or English, only. The remaining schools offered supports in those topics in addition to science and/or behavior. The following section discusses how schools addressed the essential components of RTI.

Tiered System of Instruction. Developing strong primary instruction (i.e., Tier I) in high schools is challenging given the paucity of research in content areas other than adolescent reading. In the absence of research, practitioners are drawing guidance from research on school improvement, curriculum alignment, and features of effective instruction. Several high schools emphasized the alignment of instruction with state standards, incorporated research-based instructional strategies into core instruction, and embedded literacy strategies in all content classrooms.

Secondary and tertiary interventions differed in several ways. Secondary interventions were frequently provided through co-teaching in whole class or small group settings within an intervention class. A specialized teacher (e.g., a special education teacher) often provided tertiary interventions to small groups or individual

students. Tertiary interventions often targeted basic skills and were more likely to be published intervention programs.

Roughly half the schools provided intervention classes that lasted an entire semester. These classes were taken in lieu of an elective. Other schools offered interventions through existing structures built into the master schedule, such as co-lab classes, seminars, or other academic supports that were available to students throughout the day. Some schools provided interventions specific for English language learners and one school was implementing interventions for science.

Universal Screening. To identify which students needed additional instruction, several schools analyzed 8th grade data. Additional screening assessments were often administered at the beginning of ninth grade to verify student needs.

Some schools identified students for additional instruction through a failure of one or more English or algebra class in 9th grade. Although this approach differs substantially from traditional elementary screening methods, graduation data indicate that failing 9th grade algebra and English classes correlates significantly with dropping out of school before graduation (Christenson, Reschly, Appleton, Berman-Young, Spanjers & Varno, 2008; Jimerson, Reschly, & Hess, 2008) and therefore is a valid measure for universal screening.

Progress Monitoring. Schools implemented a wide range of approaches for progress monitoring. Generally, schools selected progress monitoring measures based on the focus of their framework, as well as available resources, such as staff members and budgeted funds. The frequency of progress monitoring differed but, usually occurred at least twice a month in secondary and tertiary interventions. Schools used curriculum-based measurement and other published tools to monitor academic progress. For behavioral measures, staff used indicators such as attendance, grades, or office referrals. Diagnostic tools were typically administered less frequently (e.g., once a semester) to identify intensive interventions.

Data-Based Decision Making. Like elementary school frameworks, screening data were used to identify students for intervention and progress monitoring data were used to monitor students' responsiveness to interventions, differentiate instruction, and make intervention changes. Decision making typically occurred in data meetings with a range of stakeholders present. Several schools asked students to participate in problem-solving meetings and solicited students' input in intervention design and

data collection. Student participation illustrates one key difference between implementation of RTI at the elementary school level and at the high school level.

Conclusion

In conclusion, while implementation methods varied at the high school level, the essential components of RTI appear applicable to high school settings. A more thorough explanation of this investigation that highlights high school contextual factors and implementation challenges is currently in the process of being published by the High School Tiered Interventions Initiative team (see Exhibit 4).

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Supporting Materials

Exhibit 3

School:

Interviewee:

Interviewed by:

Date of Interview:

Start Time: **End Time:**

School Demographics:

How long has a tiered system been in place?

Contact Information:

Describe your school's system of supporting struggling students.

What areas/grade levels are targeted? (Academics—if so, what content area? Behavior, Dropout prevention)

How are students with disabilities included?

Describe how the school supports/interventions are scheduled.

Who implements the supports/interventions?

When and how often are the supports/interventions offered?

Describe how you assess the effectiveness of the intervention/support and make instructional decisions for an individual student. In other words, how do teachers know if an intervention is working?

What is the decision-making criteria and process (e.g., certain number of data points, steps in process, time in intervention)?

How does your school identify students as needing extra support?

What happens after a student is identified as needing extra support?

Describe the professional development provided for teachers and administrators to implement the school's model.

How did you train staff so they would have a sufficient understanding of your school's program?

Describe the type of data collected to evaluate outcomes of the school's model. For example, is this data publically available? Does the data demonstrate efficacy?

Efficacy of overall system, other than just student level?

How long has it been since the first part of your model? First big aspect?

Additional Information

Exhibit 4

Who We Are

The High School Tiered Interventions Initiative (HSTII) is a collaboration among the National High School Center, the Center on Instruction, and the National Center on Response to Intervention. The National High School Center and the Center on Instruction, funded by the Office of Elementary and Secondary Education and the Office of Special Education Programs (OSEP), are two of five national content centers supporting the Regional Comprehensive Centers. The National Center on Response to Intervention is a national technical assistance center funded by OSEP.

Center on Instruction

The Center on Instruction supports a national network of Regional Comprehensive Centers as they serve state education leaders in helping schools and districts meet the goals of No Child Left Behind (NCLB)—to close the achievement gap and improve teaching and learning for all students. To that end, the Center on Instruction offers information on NCLB; best practices in reading, math, science, special education, and English language learning instruction; syntheses of recent scientific research on instruction; and opportunities for professional development.
➲*Web site: www.centeroninstruction.org*

National Center on Response to Intervention

The National Center on Response to Intervention's mission is to provide technical assistance and dissemination about proven and promising models for Response to Intervention (RTI) and Early Intervening Services (EIS) to state and local educators, families, and other stakeholders. The Center works in four areas: (a) knowledge production, which involves a technical review committee of experts who independently evaluate the scientific rigor, conditions for successful implementation, and cultural and linguistic competence of all identified models (and components); (b) implementation supports, which involve training and follow-up activities to scale up RTI and EIS on a broad scale; (c) information dissemination, which involves forming communities of practice to improve the likelihood that consumers will adopt RTI models; and (d) formative evaluation, which involves an assessment of the quality, implementation, impact, and cost effectiveness of the services offered.
➲*Web site: www.rti4success.org*

National High School Center

The National High School Center serves as the central source of information and expertise on high school improvement for a national network of Regional Comprehensive Centers. Millions of high school students—particularly those with disabilities, with limited proficiency in English, or from low-income backgrounds—need additional support to succeed. To address this challenge, the National High School Center promotes the use of research-supported approaches that help all students learn and become adequately prepared for college, work, and life. The National High School Center identifies research-supported improvement programs and tools, offers user-friendly products, and provides technical assistance services to improve secondary education.

➲*Web site: http://betterhighschools.org*

Applying Response to Intervention to English Language Learners

Authors: Marcela Movit, American Institutes for Research, and Izabela Petrykowska, American Institutes for Research

Purpose

Local education agencies (LEAs) are often faced with limited research and guidance on how to effectively include English language learners (ELLs) in a response to intervention (RTI) framework. LEAs look to the state education agency (SEA) to answer questions and address concerns. This paper presents a case study of one state, Tennessee, which has taken significant steps to support its LEAs in their work around RTI with ELLs. The SEA is working with local ELL coordinators to develop resources to help LEAs.

Background

Since 1993, the ELL population has grown from two to five million students (National Center on Educational Statistics, 2004; National Clearinghouse for English Language Acquisition & Language Instruction Education, n.d.). As of 2005, ELLs accounted for more than 10% of all students in U.S. schools (Northwest Regional Educational Laboratory). RTI is a potentially powerful framework for addressing the unique needs of the increasing number of ELLs because it provides interventions that are specifically targeted to individuals' needs, compares students' progress to their true peers (other ELLs rather than native English speakers), and stresses the importance of culturally and linguistically appropriate pedagogy.[1]

Methods

The case study data were collected through a systematic search of the Tennessee Department of Education's website and an interview with the state's Director of Program Improvement. Both occurred in early 2010. How Tennessee has addressed some important issues related to RTI for ELLs and how it plans to move forward can help other states developing guidance for LEAs.

[1] See Brown & Doolittle, 2008, for a discussion of the importance of special considerations when implementing RTI for ELLs.

Results

Below is Tennessee's approach for addressing issues identified as critical to the effective support of ELLs (Brown & Doolittle, 2008; Northwest Regional Educational Laboratory, 2005).

1. **What role does the school leadership team have in ensuring that when implemented appropriately RTI meets the needs of ELLs?**

   Although Tennessee does not have a set policy on who should be on the leadership team, the state offers recommendations. The state advises schools to include an administrator, a general education teacher, a special education teacher, and an ELL provider. The person who occupies the latter position tends to be a literacy or reading coach who works with ELLs rather than an ESL teacher. The state works closely with the schools to guarantee that they are creating a strong infrastructure, through the leadership team, that will support students' needs. Once the infrastructure is set, there is a reliance on the guidance of ESL teachers to ensure that RTI is implemented appropriately for ELLs (V. McDonald, personal communication, 2010).

2. **How can educators distinguish between a linguistic difference and a learning disability?**

   Tennessee does not have set policies on how to determine whether a student has a linguistic difference or a learning disability. Instead, the state refers educators to the *ESL Appropriate Identification Guidelines* and *Assessment for Culturally Diverse Students* documents available on its website. These two resources emphasize the importance of creating a balance between giving students adequate time to learn English without allowing students to wait too long before evaluating them for a possible learning disability. The state stresses the need to understand that while students are acquiring language, schools should give students longer time to show improvement in language proficiency. Nevertheless, educators are cautioned that "if you wait for 3 years to serve a child who needed special education services [while waiting for the child to acquire the language fully], you have effectively denied this child the education s/he deserved. In fact, you may have denied access to education" (Tennessee Department of Education, 2007).

3. **What kinds of preventive instruction are effective for ELLs?**

   Currently, Tennessee is in the process of developing policies on preventive instruction for ELLs. The state plans to collaborate with ELL coordinators at the state and local levels to create webinars that will focus on providing standardized guidance on this issue. Until then, educators can look more generally at the state standards for students with limited English proficiency (LEP), which "take into account the critical role of language learning in the achievement of content and specifically focus on the learning styles and instructional needs of LEP students" (Tennessee State Board of Education, 2007). These specify standards for students in reading, writing, listening, and speaking for each grade level. By providing ELLs with effective instruction that helps them meet each of these standards, teachers can ensure that students' needs are being met.

4. **What professional development do classroom teachers need to support ELLs within an RTI framework?**

   While Tennessee recognizes a great need for professional development for teachers on RTI for ELLs, it is still in its early stages of coordinating and planning such activities. It recently created a baseline RTI needs assessment, which will be administered annually to determine the focus areas for the professional development efforts. Currently, the state relies on webinars, local presentations, and some guiding documents, such as those mentioned above, to disseminate information on best practices in instruction to special education directors, ELL coordinators, and teachers that work with ELLs.

Conclusion

The development of effective practices for implementing an RTI framework for ELLs is still in its early stages. Some states, such as Tennessee, are beginning to create and implement practices that will support and address the unique needs of ELLs; however, there is much work that still needs to occur. For guidance to be effective, states should focus on the most critical the areas for supporting ELLs (Brown, 2008; Northwest Regional Educational Laboratory, 2005): school leadership, distinguishing linguistic differences from learning disabilities, preventive interventions, and professional development.

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Using RTI to Reduce Disproportionality and the Achievement Gap

Authors: Victoria Rankin Marks, American Institutes for Research, Darren Woodruff, American Institutes for Research, and Matthew Pigatt, American Institutes for Research

Introduction

This paper provides a descriptive analysis and summary of research on the use of response to intervention (RTI) to close the achievement gap between students from ethnically diverse backgrounds and their peers, and presents an analysis of state-reported disproportionality rates.

Response to Intervention (RTI) is a multi-level prevention framework for providing comprehensive support to students across both instruction and behavior. A goal of RTI is to minimize the risk for long-term learning challenges by responding quickly and efficiently to documented learning or behavioral problems and reducing the potential for inappropriate identification of students with disabilities.

The achievement gap has been an ongoing issue in American public education since the Coleman Report (1966) outlined the disparities in educational resources between Black and White children. Subsequent research continues to highlight the achievement gap between the two racial groups (Jencks & Phillips,1998; Hallinan, 2001), and increasingly has also focused on the disparities between Hispanic and White children, particularly as reflected among English Language Learners (Lee, 2002).

Disproportionality refers to the long-standing pattern of over representation of racial and ethnic subgroups of students in special education (Dunn, 1968; Losen and Orfield, 2002; Harry and Klingner, 2006). For example, African American students comprise 17 percent of public school students but represent 32 percent of students identified as mentally retarded, 29 percent of students identified as emotionally disturbed, and 21 percent of students identified for a learning disability (www.ideadata.org). This pattern of over-identification contributes to the achievement gap, high dropout rates, and reduced post-school employment opportunities (SRI International, 1995; Donovan & Cross, 2002).

Both the achievement gap and disproportionality have been linked in other research (Skiba, 2008; Artiles, Harry, Reschly, & Chinn, 2002). The present paper builds upon this previous work by providing an exploratory analysis of the current context of disproportionate representation, the achievement gap, and the possible benefit in using the RTI framework to address these issues. Attending to the issues of disproportionality and achievement, we believe, will in turn address issues related to high dropout and unemployment rates among at-risk youth.

Method

For the current analysis, we limit our examination to five states that reported the highest percentage of districts with disproportionate representation in School Year (SY) 2008-2009: Virginia, Oklahoma, Rhode Island, Delaware, and Colorado. For the first analysis, we use data from the states' Annual Performance Reviews (APRs) and a synthesis of states' level of disproportionate representation and risk ratio thresholds. These data represent Indicator 9, the overall disproportionate representation of racial and ethnic groups in special education, and Indicator 10, the disproportionate representation of racial and ethnic groups by specific disability categories. The data presented are for SYs 2006-2007, 2007-2008, and 2008-2009.[1] Given the emphasis in the literature on the outcomes of Black and Hispanic children, we include data for those groups, and exclude Asian/Island Pacific and Native American groups. White children are the comparison group in these data.

Our second construct is the achievement gap between White-Black and White-Hispanic children, using the fourth- and eighth-grade reading assessment scores reported in the National Assessment of Education Progress (NAEP) reports for SYs 2006-2007 and 2008-2009 as our measure.[2]

The third construct we examine is the percentage of high school dropouts. We broadly define this construct as students who are aged 16-19 and not in school *or* those who left school during grades 9-12. This definition reflects the variance in how states report this statistic. Four of the five states we include in this analysis report dropouts as the percent of teens aged 16-19 who are not in school and are not high school graduates; one state, Delaware, reports dropouts as the dropout rate per 100 students in grades 9-12.

Finally, we examine the Bureau of Labor Statistics' unemployment rate data for the five states included in this analysis.

[1] The reauthorization of the Individuals with Education Disabilities Act (IDEA) occurred in 2004; however, many states either did not provide data or provided inaccurate data in the first year in which reporting was required (SY 2005-2006). Thus, we began our examination with data from SY 2006-2007.

[2] The NAEP reports are produced bi-annually; thus, data on reading achievement are not available for S Y 2007-2008.

Results and Discussion

Although this is an exploratory descriptive analysis, we find a strong suggestion of constructs for which further empirical analysis should be undertaken.

Tables 1, 2, and 3 in Exhibit 5 show data for the constructs we examine in this analysis for SY 2006-2007, 2007-2008, and 2008-2009, respectively. We include the national data for disproportionate representation as a comparison point for states' data.

While one cannot ascertain a correlation from these data, the tables suggest an underlying theme among the constructs studied. It is not surprising that some students in special education encounter difficulties with academic achievement, which in turn contributes to them dropping out of schools and experiencing difficulty finding and retaining employment. We do not posit that our analysis is definitive due to the limits of our data, but we find that the underlying theme is strong enough to suggest that further study is warranted.

It is evident from the data that, due to the inconsistency with which states report their data for Indicators 9 and 10, we are unable to empirically examine the relationship among disproportionality and the other variables we include in this paper. States also do not consistently provide details regarding specific disabilities by race and ethnic group. Therefore, we conclude that states typically comply with the letter of the law regarding disproportionality, but do so in a way that limits the usefulness of analyzing available data.

Rigorous implementation of RTI includes a combination of high quality, culturally and linguistically responsive instruction, assessment, and evidence-based intervention. Comprehensive RTI implementation will contribute to more meaningful identification of learning and behavioral problems, improve instructional quality, provide all students with the best opportunities to succeed in school, and assist with the identification of learning disabilities and other disabilities. Effective implementation of RTI, therefore, can be a useful and effective tool to reduce disproportionality, narrow the achievement gap, and decrease dropout and unemployment rates among Black and Hispanic at-risk youth. However, to fully assess RTI's effectiveness, it is imperative that states uniformly and consistently report how they determine disproportionality and inappropriate identification of students in special education. States need to provide data disaggregated by district, by race

and ethnicity and, particularly with reference to indicator 10, by specific category of disability. States also must provide high school dropout data that are consistently defined and measured. It is incumbent upon state, and perhaps federal, education agencies to implement measures to improve collection for these data throughout the nation.

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Supporting Materials

Exhibit 5

Table 1. Disproportionality, achievement gap, dropout, and unemployment rates, by race and ethnicity, for selected States—AY 2006-2007.

State	# of Districts	% of Districts w/ Disprop Over(Under)	% Districts w/ Inappropriate Identification	Indicator # 9			% of Districts w/ Disprop Over(Under)	% Districts w/ Inappropriate Identification	Indicator #10 (SLD)			Achievement Gap				Dropout			% Unemployed		
				Whites	Blacks	Hispanic			White	Black	Hispanic	Black 4th Grade Reading	Black 8th Grade Reading	Hispanic 4th Grade Reading	Hispanic 8th Grade Reading	State	Black	Hispanic	State	Black	Hispanic
National	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-28	-27	-26	-25				5	8	6
Virginia	132	n/a	0%	n/a	n/a	n/a	n/a	0%	n/a	n/a	n/a	-20	-20	-17	-14	5	7	13	3	5	4
Oklahoma	540	66%	1%	n/a	n/a	n/a	100%	0%	n/a	n/a	n/a	-19	-22	-25	-25	8	6	19	4	9	6
Rhode Island*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-29	-29	-29	-34	7	n/a	n/a	5	6	8
Delaware	35	40%	0%	n/a	n/a	n/a	n/a	0%	n/a	34%	3%	-20	-23	-15	-17	5	8	9	4	5	6
Colorado	56	9%	n/a	4%	0%	5%	14%	n/a	0%	0%	2%	-24	-22	-30	-25	9	n/a	19	4	8	5

Sources: Office of Special Education Programs. (2006), *Annual Performance Reports—Part B.* US Department of Education.

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*Rhode Island did not report a total number of school districts for AY 2006-2007, therefore, we could not calculate the percentage of districts with disproportionality under indicator 9 and 10. However, Rhode Island did report raw numbers of 11 districts with disproportionate representation under indicator 9, and 28 districts with disproportionate representation under indicator 10.

Table 2. **Disproportionality, achievement gap, dropout, and unemployment rates, by race and ethnicity, for selected States—AY 2007-2008.**

State	# of Districts	% of Districts w/ Disprop Over(Under)	% Districts w/ Inappropriate Identification	Indicator # 9			% of Districts w/ Disprop Over(Under)	% Districts w/ Inappropriate Identification	Indicator #10 (SLD)			Achievement Gap				Dropout			% Unemployed		
				Whites	Blacks	Hispanic			White	Black	Hispanic	Black 4th Grade Reading	Black 8th Grade Reading	Hispanic 4th Grade Reading	Hispanic 8th Grade Reading	State	Black	Hispanic	State	Black	Hispanic
National	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				n/a	n/a	n/a
Virginia	132	59%	0%	n/a	n/a	n/a	77%	0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	8	8	n/a	n/a	n/a
Oklahoma	539	53%	0%	n/a	n/a	n/a	50%	0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8	7	15	n/a	n/a	n/a
Rhode Island	50	22%	8%	n/a	n/a	n/a	48%	10%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6	n/a	n/a	n/a	n/a	n/a
Delaware	35	40%	0%	n/a	n/a	n/a	n/a	0%	n/a	34%	3%	n/a	n/a	n/a	n/a	6	8	8	n/a	n/a	n/a
Colorado	58	10%	0%	3%	0%	2%	22%	0%	0%	0%	5%	n/a	n/a	n/a	n/a	7	4	18	n/a	n/a	n/a

Sources: Office of Special Education Programs. (2007), *Annual Performance Reports—Part B.* US Department of Education.

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Table 3. **Disproportionality, achievement gap, dropout, and unemployment rates, by race and ethnicity, for selected States—AY 2008-2009.**

State	# of Districts	% of Districts w/ Disprop Over(Under)	% Districts w/ Inappropriate Identification	Indicator # 9			% of Districts w/ Disprop Over(Under)	% Districts w/ Inappropriate Identification	Indicator #10 (SLD)			Achievement Gap				Dropout			% Unemployed		
				Whites	Blacks	Hispanic			White	Black	Hispanic	Black 4th Grade Reading	Black 8th Grade Reading	Hispanic 4th Grade Reading	Hispanic 8th Grade Reading	State	Black	Hispanic	State	Black	Hispanic
National	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-25	-27	-25	-24				9	15	12
Virginia	132	71(100)%	0%	n/a	n/a	n/a	83(98)%	0%	n/a	n/a	n/a	-24	-22	-20	-16	4	6	10	7	11	8
Oklahoma	538	31(29)%	0%	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	-26	-17	-16	-18	8	6	14	6	11	7
Rhode Island	50	28%	0%	10%	12%	6%	46%	6%	n/a	n/a	n/a	-24	-29	-31	-26	6	n/a	n/a	11	18	21
Delaware	36	25%	3%	n/a	n/a	n/a	37%	0%	3(20)%	37(3)%	9(9)%	-22	-19	-19	-17	5	7	7	9	13	10
Colorado	58	16%	2%	7%	5%	3%	12%	3%	n/a	n/a	n/a	-23	-24	-32	-24	8	9	16	7	15	11

Sources: Office of Special Education Programs. (2008), *Annual Performance Reports—Part B.* US Department of Education.

NAEP. (2010). The Nation's Report Card. Retrieved from the internet on March 24, 2010: http://nces.ed.gov/nationsreportcard/naepdata/dataset.aspx.

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Response to Intervention and Specific Learning Disabilities

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Federal Perspective

Historically, evaluation for specific learning disabilities (SLD) has included the implementation of a discrepancy model and has not incorporated a systematic process for ensuring that student learning experiences prior to referral for evaluation were those that typically have been found to be effective for the student's age and ability level. Subsequently, "both researchers and educators have come to realize that the discrepancy approach to specific learning disability (SLD) identification has many significant limitations" (Fuchs & Mellard, 2007). One problem is that discrepancies are usually identified after a child has experienced significant academic failure. Therefore, this approach is often characterized as a "wait to fail" model.

Conversely, the responsiveness to a scientific-based intervention framework, presented in the Individuals with Disabilities Education Act (IDEA) 2004, provides for appropriate learning experiences for all students, uses data collected from school-wide progress monitoring to assess progress, promotes early identification of students at risk for academic failure, involves multiple performance measures rather than measurement at a single point in time, and informs the comprehensive evaluation of SLD by ruling out a lack of appropriate instruction as a potential explanation for a student's poor learning outcomes. Through RTI, "school staffs may consider how a student's performance in general education and, more specifically, the student's performance in response to specific scientific, research-based instruction informs SLD determination" (Johnson, Mellard, Fuchs & McKnight, 2006).

Prior to the reauthorization of IDEA, the National Joint Committee on Learning Disabilities presented the U.S. Department of Education, Office of Special Education Programs (OSEP) with a series of concerns regarding the effectiveness of the identification procedures for SLD. This led to OSEP taking steps to address these concerns. Over several years, OSEP convened multiple workgroups that included various stakeholders in an effort to identify consensus and best practices around

SLD eligibility. In 2002, the Finding Common Ground Roundtable convened and released a document concluding that there should be alternate ways to identify individuals with SLD in addition to achievement testing, history, and observations of the child.

Current Status

Since the passage of IDEA 2004 and its subsequent regulations, State Education Agencies (SEAs) have been required to identify their SLD eligibility criteria. There are three options:

1. Severe discrepancy—the state may prohibit or permit its use.
2. RTI—the state must permit its use.
3. "Other alternative research-based procedures"—the state may permit their use. (§300.307(a))

In an effort to identify what criteria states are implementing for SLD eligibility, Dr. Perry Zirkel of Lehigh University has conducted two surveys of states and their laws regarding RTI and SLD identification. The first survey was conducted in October 2007, one year after IDEA 2004 regulations went into effect. At that point in time, six states had laws in place or were in the proposal stage of having a law that would require RTI and prohibit severe discrepancy. Four states were in a transitional stage, meaning they were going to require RTI but not until a set time in the future. Thirty six states permitted the use of RTI as well as an alternative method of identifying SLD (Zirkel & Krohn, 2008). See Exhibit 6.

Zirkel conducted the survey again in September 2009, three years after the regulations were finalized. By then, thirteen states had adopted RTI as the required approach for SLD identification and were implementing it or were in the process of transitioning to it as their SLD identification method. All remaining states permitted the use of RTI, and five states prohibited the use of severe discrepancy as their SLD identification method (Zirkel & Thomas, 2010). See Exhibit 6.

While these surveys illustrate where states are in their implementation of laws around SLD identification criteria, they do not address the diverse methods that states are applying for identification criteria. There is a lack of understanding in and between states regarding SLD identification criteria, in part because of the lack of

clarity and specificity in the federal regulations. This ambiguity has led to states defining SLD in ways that vary even more than they did under the discrepancy approach. Questions arise about SLD and what it really means when it is defined differently by each state.

Research

While disagreement exists among researchers regarding the appropriate methods for identifying students with specific learning disabilities and additional research is necessary, there is a growing body of research that supports the use of response to intervention data in the evaluation process for SLD (Fletcher & Vaughn, 2009; Fuchs & Fuchs 2009; Marston, Mirkin, & Deno, 2001; Case, Speece, & Molloy, 2003; Vaughn, Linan-Thompson, & Hickman, 2003). For some time now, many researchers have had concerns with the use of discrepancy models because they have not proven to be reliable and they do not lead to the implementation of appropriate interventions for students (Fletcher & Vaughn, 2009; Vellutino, Scanlon, & Lyon, 2000). In an RTI model, the focus is on whether the student is achieving at an appropriate rate relative to age-based expectations and instruction. Through implementation of screening and progress monitoring teachers and other instructors are able to use the data that are collected to determine appropriate interventions for struggling students and are able to eliminate poor instruction as the cause of the student's lack of achievement (Fletcher, Coulter, & Reschly, 2004; Fuchs, Fuchs, & Speece, 2002). In addition, the data that are collected within an RTI framework provide valuable input during the evaluation process, primarily because there are data to show what has been tried but does not work for the student.

What we have learned so far is that RTI provides necessary but insufficient data to inform the SLD eligibility process and that continued research on the SLD construct and appropriate measurement tools are needed. Federal guidance that can help provide more consistent definitions and approaches to SLD evaluation would help to support states in moving forward.

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Supporting Materials

Exhibit 6

State Laws Regarding SLD Eligibility Determination (Zirkel & Krohn, 2008, and Zirkel & Thomas, 2010)

State's Choice Regarding RTI and Other Options	Proposed		Finalized	
	2007 *(n = 23)*	2009 *(n = 2)*	2007 *(n = 24)*	2009 *(n = 49)*
Mandatory; require RTI and				
Prohibit SD	FL, IN		CO, WV	CO, CT, DE, LA, WV
Other variation			DE, GA	FL, GA, NM, NY, RI
Transitional				
Permit RTI and third alternative but not SD			IA	IN
Permit RTI and – only until 2010 - SD			IL, ME	IL
Permit all three options but intend to require RTI			LA	ME
Permissive; permit RTI and				
SD only	AZ, MN, MT, NE, NC, PA, RI, TX,WI	HI, WI	ID, MD, MO, ND, NM, NV, OK, OR, SD, VT, WA, WY	AZ, CA, DC, ID, MN, MO, MT, NE, NV, NJ, NC, ND, OK, PA, SD, TN, VT, WY
SD and third alternative	AR, CA, CT, HI, KY, MA, MI, OH, SC, VA		AL, KS, NY, TN	AL, AK, AR, IA, KS, KY, MD, MI, NH, OH, OR, SC, TX, VA
SD or combination of RTI-SD	MS		UT	MA, MS, UT, WA

Note: SLD = specific learning disability; RTI = response to intervention; SD = severe discrepancy

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