Purpose of this overview

The purpose of this document is to provide a conceptual overview of responsiveness to intervention (RTI)—including hypothetical examples of how RTI might operate within a school setting and for a particular student—and to discuss its role within the larger context of specific learning disabilities (SLD) determination.

Introduction

The reauthorized Individuals with Disabilities Education Improvement Act of 2004 (P.L.108-446) (IDEA 2004) was signed into law on December 3, 2004, by President George W. Bush. IDEA 2004 includes provisions that could lead to significant changes in the way in which students with SLD are identified. Of particular relevance to the process of SLD determination are the following provisions of the statute:

1. Local educational agency (LEA) shall not be required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability (IDEA 2004).
2. LEAs may use response to scientific-based instruction.
3. “Responsiveness to Intervention” (RTI) is not specifically identified in the law.
4. LEAs are given flexibility in determining SLD implementation options.
5. Using special education funding to provide early intervening for all students is permitted.

This movement toward change stems from criticisms of current SLD determination components, procedures, and criteria. Although the focus and scope of the debate varies, much of the criticism stems from discrepancies between conceptual definitions and operational definitions of SLD (Reschly & Hosp, 2004). Most notably, although conceptual definitions are multi-faceted, operational definitions have typically reduced the construct of SLD to a single dimension, a discrepancy between achievement and ability. In improving the process of SLD determination, understanding the components of the conceptual definition of SLD is important. In general, SLD involves learning and cognition disorders intrinsic to the individual, which are specific in that they each significantly affect a relatively narrow range of academic and performance outcomes (Bradley, Danielson, & Hallahan, 2002). The Individuals with Disabilities Education Act of 1997 regulations define SLD as follows:

SPECIFIC LEARNING DISABILITY - 20 U.S.C. § 1401(26)(A); 34 C.F.R. § 300.7(c)(10)
(A) GENERAL - The term means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations.

(B) DISORDERS INCLUDED - The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia.

(C) DISORDERS NOT INCLUDED - The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural or economic disadvantage.

SLD identification procedures, therefore, need to adequately address the components in the conceptual definition in a systematic and analytical fashion to accurately identify the presence of a learning disability. Ideally, identification of SLD should include a student-centered, comprehensive evaluation and problem-solving approach that ensures students who have a learning disability are efficiently identified. Additionally, general education must assume significant responsibility for delivery of high-quality instruction, research-based interventions, and prompt identification of individuals at risk while collaborating with special education and related services personnel (2004 Learning Disabilities Roundtable, 2005).

Previous SLD determination procedures and practices have been faulted in several areas: irrelevance of aptitude-achievement discrepancy and cognitive measures to instructional planning or outcomes; lack of equitable treatment across educational settings; and delays in disability determination. Another criticism of practices has been that students were judged to have an SLD without assessing the availability and use of general education interventions that have proven their effectiveness for youngsters presenting similar behaviors of concern (e.g., limited reading acquisition). One could not be confident that the achievement and behavior problems that a child presented were inherent to the child or attributable to shortcomings in the instructional settings.

Earlier statutes regarding the determination of SLD included a provision for evaluating the extent to which students had received appropriate learning experiences. However, no systematic process was outlined in the earlier regulations for ensuring that the “learning experiences” provided before referral for evaluation were those that have been found to be typically effective for the child’s age and ability levels (i.e., “appropriate”). The responsiveness to scientific-based intervention (e.g., RTI) concept in IDEA 2004 is an elaboration or greater specification of this basic concept. With this emphasis, school staffs may consider how a youngster’s performance in general education and, more specifically, the youngster’s performance in response to specific scientific research-based instruction, informs SLD determination.
In principle, RTI is proposed as a valuable construct for schools because of its potential utility in the provision of appropriate learning experiences for all students and in the early identification of students as being at risk for academic failure. Students need and benefit from a close match of their current skills and abilities with the instructional and curricular choices provided within the classroom. When a mismatch occurs, student learning and outcomes are lowered. For some students, typical classroom instruction is appropriate and meets their needs, but for others, success is not easy. The hypothesis is that the earlier these floundering students can be identified and provided appropriate instruction, the higher the likelihood they can be successful and maintain their class placement. Thus, their underachievement is reduced or eliminated. The RTI approach to defining SLD can follow a variety of models: predictor-criterion models that best predict reading competency; dual-discrepancy models that address failure at general education interventions; and functional assessment models that manipulate environmental events (Bradley, Danielson & Hallahan, 2002).

One might be in a better position to help those learners who are experiencing difficulty if an assessment method could match the student with appropriate instruction. It is the intent of RTI to combine important features of assessment and instruction and to address many of the limitations currently associated with aptitude-achievement discrepancy models of SLD identification. The following are core features of strong RTI (Mellard, 2003):

1. **High quality classroom instruction.** Students receive high quality instruction in their general education setting. Before students are identified for specific assistance, there must be assurance that the typical classroom instruction is of high quality. This quality can be assessed by comparing students’ learning rates and achievement in different classrooms at the same grade level.

2. **Research-based instruction.** General education’s classroom practices and the curriculum vary in their efficacy. Thus, ensuring that the practices and curriculum have demonstrated validity is important. If instruction is not research-based, one cannot be confident that students’ limited gains are independent of the classroom experiences.

3. **Classroom performance.** General education instructors and staff assume an active role in students’ assessment in the general education curriculum. This feature emphasizes the important role of the classroom staff in designing and completing student assessments rather than relying on externally developed tests (e.g., state or nationally developed tests).

4. **Universal screening.** School staff conducts universal screening of academics and behavior. This feature focuses on specific criteria for judging the learning and achievement of all students, not only in academics but also in related behaviors (e.g., class attendance, tardiness, truancy, suspensions, and disciplinary actions). Those criteria are applied in determining which students need closer monitoring or an intervention.

5. **Continuous progress monitoring.** In RTI models, one expects students’ classroom progress to be monitored continuously. In this way, staff can readily identify those learners who are not meeting the benchmarks or other expected standards. Various curriculum-based assessment models are useful in this role.

6. **Research-based interventions.** When students’ screening results or progress monitoring results indicate a deficit, an appropriate instructional intervention is implemented, perhaps an individually designed instructional package or a standardized intervention protocol. The standardized intervention protocols are the interventions that researchers have validated through a series of studies. School staff is expected to implement specific, research-based interventions to address the student’s difficulties. These interventions might include a “double-dose” of the...
classroom instruction or a different instructional method. These interventions are not adaptations of the current curriculum or accommodations, because one would expect those procedures to have been implemented already. These research-based interventions are 8 to 12 weeks in length and are designed to increase the intensity of the learner’s instructional experience.

7. Progress monitoring during interventions. School staff members use progress monitoring data to determine interventions’ effectiveness and to make any modifications, as needed. Carefully defined data are collected, perhaps daily, to provide a cumulative record of the learner’s response to the intervention.

8. Fidelity measures. While the interventions themselves are designed, implemented, and assessed for their learner effectiveness, fidelity measures that focus on those individuals providing the instruction also are completed. The fidelity measure, usually an observational checklist of critical teaching behaviors, is completed by a staff member other than the teacher being observed and indicates whether or not the intervention was implemented as intended and with consistency.
RTI is a multi-tiered service delivery intervention. Much discussion continues surrounding the issues of how many tiers constitute an adequate intervention (O’Connor, Tilly, Vaughn & Marston, 2003). Most frequently, RTI is viewed as a three-tiered model, similar to those used for other service delivery practices, such as positive behavioral support. The three-tiered model is the structure we will discuss here. Figure 1 depicts a three-tiered model as conceived in an RTI framework.

Figure 1. Continuum of Intervention Support for At-Risk Students

Tier One Instruction

One concern about current approaches to SLD identification is the number of students who may actually be “instructional casualties,” those students who have not received scientific, research-based instruction in reading or other academic skill areas. Tier One instruction is designed to provide for the majority of students’ needs and consists of three elements:

1. Research-based core instructional programs provided by the general education teacher
2. Progress monitoring of students such as through curriculum-based measurement (CBM)
3. Analysis of the progress monitoring results to determine which students are at risk and require more intense instructional support.

This first level of instruction is designed to serve all students with well-supported instructional programs. General education teachers would be required to adopt evidence-based instructional programs in reading, math, and writing and to be responsible for the continual monitoring of their students’ progress. Results of the progress monitoring would be reviewed periodically to determine which students were failing to make adequate progress and would qualify for Tier Two intervention.

Tier Two Intervention

Tier Two intervention is for those students for whom Tier One instruction is insufficient and who are falling behind on benchmark skills and require...
additional instruction to achieve grade-level expectations. Although many variations of Tier Two interventions are described in the research, in general, Tier Two is small-group supplemental instruction (ratio of up to one teacher to five students, 1:5) provided by a specialist, tutor, or special education teacher to students who fail to make adequate progress in the general classroom. Tier Two includes programs, strategies, and procedures designed and employed to supplement, enhance, and support Tier One instruction to all students.

Tier Two instruction starts as soon as possible after students have been identified as falling behind grade expectations through benchmark testing. In this way, it differs from current approaches to SLD identification in which a student must undergo a lengthy referral and evaluation system before receiving supplemental instruction. The evidence on Tier Two interventions supports the use of a standard protocol approach, in which the supplemental instruction also is centered on evidence-based practices for students at risk. The progress of students in Tier Two also is monitored to determine whether they are responding to the intervention.

Although no clear consensus exists on the duration of Tier Two interventions, in general, the research supports 8 to 12 weeks for each round of intervention. At the end of this period, a decision should be made about the student’s instructional needs. The options to be considered include the following:

1. Return to the general education classroom if the student has made sufficient progress.
2. Receive another round of Tier Two intervention if the student is achieving progress but still remains behind his/her grade-level expectations (e.g., perhaps repeat the intervention or change to another scientific, research-based interven-
tion depending on progress monitoring results).

3. Consider for more intensive intervention in Tier Three.

Tier Three Intervention

Tier Three intervention is intensive, strategic, supplemental and often considerably longer in duration than the 10 to 12 weeks of supplemental instruction provided in Tier Two. In most schools, Tier Three might be synonymous with special education. Tier Three is for students who fail to make sufficient progress after receiving Tier Two interventions. In some RTI models, students who fail to make adequate progress after two rounds of Tier Two may be referred for Tier Three interventions. Students who receive only one round of Tier Two intervention but whose progress is severely limited also may be referred to Tier Three.

Instructional support in Tier Three will most likely be delivered by the best qualified teacher or specialist to provide sustained, intensive support in the specified area of need. Instruction is individualized or delivered in small groups, with a ratio of no more than one teacher to three students, 1:3. Tier Three differs from Tier Two in that it is more intensive instructional support, tailored to the individual student and may continue for much longer periods, depending on student need. In Tier Three, the student’s needs are more significant, which necessitates a more intense intervention.

Progress monitoring is a continual part of Tier Three and is used to carefully observe student response to the intervention, report his/her progress to parents, and determine future instructional placements. As a general guideline, a student is ready to exit the intervention when he/she has reached benchmark on the targeted skills. Students who meet targets of Tier Three and are exited to Tier One, but who fail to thrive without that support, also may re-enter Tier Two or, if needed, Tier Three until they are able to maintain progress in Tier One. Figure 2 on page 6 contains a flowchart depicting how RTI might be carried out in a school.

Using a standardized RTI intervention approach, pages 8-10 present hypothetical profiles of three students’ responses to reading instruction. Operationalizing a protocol treatment approach to RTI could include the following four-step process (adapted from Fuchs et al., 2005).

<table>
<thead>
<tr>
<th>Step</th>
<th>Tier</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screening</td>
<td>1</td>
<td>Shared by General Education and Special Education</td>
</tr>
<tr>
<td>2. Implementing General Education and Monitoring Responsiveness to General Education</td>
<td>1</td>
<td>General Education</td>
</tr>
<tr>
<td>3. Implementing a Supplementary, Diagnostic Instructional Trial and Monitoring Responsiveness</td>
<td>2</td>
<td>Shared by General Education and Special Education</td>
</tr>
<tr>
<td>4. Designation of Disability, Classification of Disability, and Special Intensive Instruction Placement and Monitoring Responsiveness to Special Intensive Instruction Placement</td>
<td>3</td>
<td>Special Education</td>
</tr>
</tbody>
</table>
Austen’s case represents an assessment made during Tier One with no indication of continued non-responsiveness (see Figure 3). This student is currently receiving instruction in the general classroom (Tier One). Austen’s initial performance on a measure of oral reading fluency is significantly below the screening target (Word Fluency Target = 30 words per minute; Austen’s Word Fluency = 10.5 words per minute), which flags Austen as being at risk. However, as Austen progresses through the curriculum, Austen is making adequate progress (Word Fluency Slope = Number of words per minute identified/Number of weeks of intervention; Austen’s Word Fluency Slope = 1.8), which suggests that Austen is responding to Tier One instruction. Although continued progress should be carefully monitored, at the current time, no further interventions are warranted.

Figure 3. Responsiveness to Intervention Assessment during Tier One Prevention

Profile 2

Jordan

Jordan’s case represents an assessment made during Tier One with indication of non-responsiveness and advancement to Tier Two instruction with assessment made and no indication of continued non-responsiveness (see Figure 4). Jordan began with an oral reading fluency of five words per minute, which flagged Jordan as being at risk. As Jordan progressed through Tier One instruction, Jordan failed to make adequate progress (Word Fluency Slope = Number of words per minute identified/Number of weeks of intervention; Jordan’s Word Fluency Slope = .53), which suggests that Jordan requires more intensive intervention that can be offered through the school’s Tier Two instructional program. Continued progress monitoring during Tier Two intervention shows that Jordan is responding to the diagnostic instructional trial and that no further level of intervention is warranted. Jordan’s progress will continue to be monitored with the following possible outcomes:

1. Student will reach the targeted goal for oral reading fluency (ORF) and return to Tier One instruction.
2. Student will continue with Tier Two instruction as long as he/she makes adequate progress.

Figure 4. Non-responsive to Intervention Assessment during Tier One and Responsive after Tier Two Intervention

Taylor’s case represents an assessment made during Tier One with indication of non-responsiveness and advancement to Tier Two instruction with assessment made and indication of continued non-responsiveness resulting in a learning disability classification (see Figure 5). Taylor began with an ORF of five words per minute, which identified Taylor as at risk for reading failure. As Taylor continued in the general class (Tier One), Taylor failed to make adequate progress (Student Word Fluency Slope = .25) and was referred for Tier Two intervention. The initial assessment in Tier Two showed Taylor had an ORF of seven words per minute. As Taylor continued with Tier Two instruction, Taylor failed to make adequate progress (Word Fluency Slope = Number of words per minute identified/Number of weeks of intervention; Taylor’s Word Fluency Slope = .35). This suggests the need for a student-centered, comprehensive evaluation and problem-solving approach that ensures individualized instruction to address Taylor’s specific learning disability (i.e., Tier Three or special education instruction).

Figure 5. Non-responsive to Intervention Assessment during Tier One and Non-responsive after Tier Two Intervention

RTI is being strongly considered as part of the SLD identification process because it has the potential to address areas of the SLD definition and construct that are not adequately assessed with current approaches. If the features of RTI are implemented with fidelity,

- There is some assurance that students are being exposed to high quality instruction in the general education classroom by stipulating that schools use evidence-based instructional practices and routinely monitor the progress of all students.
- There is an emphasis on underachievement through its focus on discrepancy models that examine whether a student is failing to respond to instruction through both low overall achievement and inability to make adequate progress.
- They encourage access to early intervention because, with the regular monitoring of progress, at-risk students are identified early, and an infrastructure for the appropriate delivery of services already is established.
- They are designed to address many students with achievement problems, so the label of learning disability is applied only for those students who fail to respond to multiple levels of intervention efforts.
- They are meant to be applied as multiple measures of child performance rather than limiting determination to a single point in time.

While RTI addresses some significant shortcomings in current approaches to SLD identification and other concerns about early identification of students at risk for reading problems, RTI should be considered as merely one important element within the larger context of the SLD determination process. Implementing RTI allows schools to have more confidence that they are providing appropriate learning experiences to all students while identifying and targeting early those students who may be at risk for reading or math problems but who do not necessarily have a learning disability. Although IDEA 2004 provides flexibility to LEAs in determining SLD identification procedures, the following recommendations by the National Joint Committee on Learning Disabilities should help guide the development of these procedures (NJCLD, 2005):

1. Decisions regarding eligibility for special education services must draw from information collected from a comprehensive individual evaluation using multiple methods including clinical judgment and other sources of relevant information.
2. Students must be evaluated on an individual basis and assessed for intra-individual differences in the seven domains that comprise the definition of SLD in the law — listening, thinking, speaking, reading, writing, spelling, and mathematical calculation.
3. Eligibility decisions must be made through an interdisciplinary team, must be student-centered and informed by appropriate data, and must be based on student needs and strengths.
4. As schools begin to execute a process of decision-making that is more clinical than statistical in nature, ensuring through regulations that this team of qualified professionals represents all competencies necessary for accurate review of comprehensive assessment data will be critical.
Processes for specific learning disability identification have changed and will continue to do so over time. Within that context, remembering that RTI is but one resource for use in the SLD determination process is important. More broadly speaking, RTI procedures have the distinction that when implemented with fidelity, they can identify and intervene for students early in the educational process, thereby reducing academic failure among all students.

Although RTI presents a promising way of addressing many issues associated with SLD identification, unanswered implementation questions remain. We must ask how many issues relevant to SLD determination are due to the specific assessment components as well as the limited fidelity with which those components were implemented (e.g., appropriate learning experiences, pre-referral intervention, application of exclusion clause, and aptitude-achievement discrepancy). Further, we must consider how well states/districts/schools could implement an assessment process that incorporates significant changes in staff roles and responsibilities (i.e., most dramatically for general education staff), while lengthening the duration of disability determination assessment and possibly lengthening service time.

Another significant consideration is that current research literature provides scant scientific evidence on how RTI applies in curricular areas other than reading and beyond primary or elementary school-age children. In conjunction with the standards that have been developed (NCSESA, 1996 and NCTM, 2000), science-based research needs to be conducted using the RTI construct in the areas of science and mathematics. Utilizing a RTI framework across educational disciplines as well as grade levels is synergistic with the No Child Left Behind Act of 2001 and promotes the idea that schools have an obligation to ensure that all students participate in strong instructional programs that support multi-faceted learning.
References


