Response to Intervention: Guidelines for Parents and Practitioners By James B. Hale, Ph.D.

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The field of education is never a dull place, especially when politics intersect with the lives of children. Consistency and stability in educational systems are rare, and the stormy seas of change ebb and flow, guided by professional and public opinion.

Over and over again, we see people get very excited about the latest ideas, buzzwords, and cure-alls for the educational system. This excitement makes whatever is in vogue the thing to do to help children learn, not just one group of children or another, but all children. Many feel the urge to support each new thing. After all, we are social creatures and we want to do what others are doing. We are quick to jump on bandwagons, especially when the needs of our education system are so great and the resources so limited.

The Latest Buzzwords: Response-to-Intervention

One of the most notable buzzwords today is "Response to Intervention" (RtI). In this paper, I will explore how RtI came to be, what it means for helping children learn, and how it can be used as a method for identifying children with Specific Learning Disabilities (SLD). I conclude that RtI is an important change that should receive widespread adoption in the schools, but that its use in disability determination requires further scrutiny.

In 2004, Congress made many changes to the Individuals with Disabilities Education Act (IDEA 2004) and RtI was a big one. We were told that resources could be shifted from an old and ineffectual "discrepancy model" of identifying and serving children with learning problems and that those resources could be put into RtI.

We could serve many more children under an RtI model than under the old discrepancy model. Many perceived this as a good change for the education system that was failing to educate so many struggling children. The premise of RtI is a good one. If you provide high quality instruction, and regularly keep track of how children are doing in the

classroom, all children will succeed and achieve high standards.

IDEA 2004: The Law about Specific Learning Disability and Response to Intervention

As background, the reader needs to understand the legal definition of "Specific Learning Disability" (SLD) and the legal term known as "Response to Intervention."

The Individuals with Disabilities Education Act (IDEA 2004) defines a Specific Learning Disability in Title 20 United States Code Section 1401(30) [cited as 20 USC 1401(30)] as follows:

(30) Specific Learning Disability.

(A) In General. The term 'specific learning disability' means a disorder in 1 or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations.

(B) Disorders Included. Such term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

(C) Disorders Not Included. Such term does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

The special education law was enacted in 1975 and was originally known as the Education for All Handicapped Children Act of 1975 or Public Law 94-142. Although the law has been reauthorized and amended several times, the definition of a Specific Learning Disability has not changed.

The "RtI statute" in IDEA 2004 is in Title 20 of Section 1414, subsection b(6), [cited as 20 USC 1414(b)(6)]. It describes the evaluation procedures used to determine if children have Specific Learning Disabilities. It reads as follows:

(6) Specific Learning Disabilities.

(A) In General . . . [W]hen determining whether a child has a specific learning disability as defined in Section 1401 of this title, a local educational agency shall not be required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability in oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematical calculation, or mathematical reasoning.

Behind McKinney-Vento Homeless
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Topics

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ESY
Evaluations
FAPE
Flyers
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IDEA 2004
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IEPs
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Reading
Related Services
Research Based Instruction
Response to Intervention

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

[**Note:** Section 1414(b)(2+3) referenced in the preceding sentence describes the mandatory requirements for all evaluations of all children with disabilities, not just children who are suspected of having a Specific Learning Disability. RtI is limited to children who are struggling and may have a Specific Learning Disability as defined in Section 1401(30).]

Systems That Break Need Repair

In the old system, there was regular education for "typical" children and a separate special education for children with disabilities. Special education became a "place" not a service, and too many children who were placed in special education continued to struggle. In addition, too many children who needed help were not served soon enough in regular education, and had to "wait and fail" before they received help.

To get sufficient help under the old system, children who struggled had to be labeled first with a disability. Many of these children were labeled as having a specific learning disability (SLD). Psychologists did this using intelligence and achievement test scores. If a big enough difference between the child's IQ and achievement existed (i.e., ability-achievement discrepancy), the child was eligible to receive special education services. But a great deal of research was done that challenged this method for identifying children with SLD. Although many children were identified, an insufficient number were getting *special* education. Many children identified were minorities, and this too caused great concern.

One clear limitation of the old discrepancy / "wait to fail" approach was that a great deal of time and resources were spent testing children who were referred for help. This took scarce and valuable resources away from helping children to learn. Many professionals were tied up doing "gatekeeper" work (determining who was eligible for special education, and who wasn't), which left little time to meet these children's needs. Team meetings often focused on the problem (often called "problem admiration"), not solutions.

Research showed the school teams often identified the child's problems inaccurately. This research suggested that some children who really needed help did not receive it (called false negatives), while other children who did get help didn't really need it (called false positives).

Then there was research suggesting that the global Intelligence Quotient (IQ) was not a good measure of intelligence because IQ is made up of many different parts.

(RTI)
Restraints/Abuse
Retention
Retaliation
School Report Cards
Section 504
Self-Advocacy
Teachers & Principals
Transition
Twice Exceptional (2e)
VA Special Education

Some parts are related to achievement, not intelligence per se (e.g., "crystallized abilities"), and are affected by the child's prior learning and achievement. Children who had limited educational opportunities and experiences, often the case in struggling schools, had lower overall IQ scores.

In addition, research on children with disabilities showed that the cognitive problem that lead to the learning problem also depressed the child's IQ score. Children with depressed IQ scores, due to these and other causes (including low "true" ability, which is another plausible explanation for a low IQ), were *less* likely to receive special education and related services than children with higher overall IQ's.

These problems resulted in an educational system that did not adequately address the needs of many children who really needed help. This led to widespread calls for system reform and reallocation of professional resources. With this tidal wave of change, many long-held beliefs and practices were challenged, including the methods for diagnosing and serving children with and without disabilities. In this rethinking of educational service delivery, the belief that using ability–achievement discrepancy as useful in diagnosing children with SLD began to fall by the wayside.

A Solution? The Rise of RtI

The basic ideas of RtI were developed over a century ago in the behavioral tradition of psychology. These ideas are relatively simple. You collect data over time and adjust instruction until the child achieves success.

A teacher modifies instruction (intervention) to help a struggling child, and then checks the child's progress regularly (called progress monitoring) to see if the intervention is working. If the intervention is working, the problem is solved. If the intervention is not working, you change the intervention and monitor progress. This process continues until the child improves. This approach does not rely on diagnosing the child, but focuses on whether the child has a "skill deficit" or a "performance deficit," and provides help until the child gets better.

RtI is what good teachers have always done to help struggling children learn. The current version of RtI is novel because it mandates good instructional practices (i.e., empirically or research-based) and evaluation of academic progress (i.e., progress monitoring) for all children.

As a result, this approach has incredible humanistic appeal. You help all children learn and succeed in the classroom by adjusting instruction to accommodate each child's learning needs. This was also a way to foster instructional success so all children can "reach, at a minimum, proficiency on challenging state academic standards and state academic assessments" as mandated by No Child Left Behind (NCLB)

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(20 USC 6301). NCLB does not provide minimum academic standards but requires states to create these standards and assessments. As a result, academic standards and assessments vary widely from state to state.

You also avoid needless labeling of children with SLD and other disabilities. Because RtI focuses on helping all children learn and modifying instruction to meet their needs, it received critical acclaim and widespread support.

Multiple Tiers of Instructional Support

RtI typically includes three or four "tiers" of instruction, with more intensive help provided if a child does not respond at each tier. Most of the instruction is provided in general education, so RtI is more about general education than special education. Special education is very expensive. Eliminating or significantly reducing special education would release resources that could be redistributed in general education, serving many more children.

Tier 1

There are many different versions of RtI, so the following model represents a generic version. In Tier 1, the idea is to provide scientific, research-based instruction or just plain old good teaching. During this Tier 1 instruction, instructional goals (benchmarks) are established, and regular progress monitoring of student performance is accomplished to make sure they are achieving at expected levels. Progress monitoring tools come from the curriculum-based measurement (CBM) tradition, where the test items should be related to the actual curriculum that the child is being taught.

Although the teacher should modify instruction or provide classroom accommodations in Tier 1 to help a struggling child, the focus is on good instruction and regular testing to ensure that a majority of children receive good instruction. If a child is not achieving at a level commensurate with his or her peers, a team, such as an Instructional Support Team or Child Study Team, should refer the child for a Tier 2 RtI intervention approach. At this point, we know that a child referred for Tier 2 services is not doing as well as the majority of students, and needs extra help.

Tier 2

In Tier 2, the Problem-Solving Model (PSM) can be used. It has been long advocated by the National Association of School Psychologists (www.naspweb.org) to help children who are struggling academically and behaviorally.

The Problem Solving Model includes four steps:

- problem identification
- problem analysis
- intervention development/implementation, and
- intervention evaluation/modification.

Unlike the Tier 1 instructional modifications or classroom accommodations, the child's learning and/or behavioral problem is identified and interventions are designed specifically to help the struggling child learn and succeed in the problem-solving approach.

In Tier 2, the child should receive a specific intervention that has been shown to help similar struggling children. The child's progress is carefully monitored to see if the intervention is working, and changes in the intervention are made until success is achieved.

In Tier 2, the intervention and measurement should be tailored to the individual child. The child may receive additional instruction from other teachers (e.g., reading teacher) and/or related services providers (e.g., school psychologist, speech language therapist). If the child does not respond to this individualized intervention, then the child should be referred for a comprehensive special education evaluation to determine eligibility for services (20 USC 1414(a-c)) and possible Individualized Education Program (IEP) (20 USC 1414(d)).

Using these tiers before evaluating to determine if a child has a disability and needs special education (i.e. eligibility) makes sense. In Tier 1, we know a child who is not successful (i.e., a "non-responder") is different than the classmates. If the child is a non-responder in Tier 2, we know that we tried to adapt instruction to the child and were still unsuccessful.

So, before a child is identified as having a disability and in need of special education services and an IEP, we determined that this child is different, probably has a disability that "adversely affects educational performance," and that attempts to individualize instruction were not successful in resolving the child's learning problems.

Tier 3: Special Education Services

If the child does not respond to Tier I and Tier 2 interventions, does the child have a disability that requires intensive Tier 3 special education instruction? In most cases, the answer is "yes." Many conclude that following Tier 1 and Tier 2 interventions, the child should be classified with a SLD, and should receive Tier 3 special education services.

Before a child can be found eligible for special education under IDEA, the school must conduct a multidisciplinary evaluation using multiple data sources. (20 USC 1414(a-c)) After this evaluation, the school team will decide if the child

meets the criteria for a SLD, the child's educational needs and whether the child is eligible for special education services.

In RtI, Tier 3 special education services are not dramatically different from Tiers 1 and 2 interventions. These special education services in the Individualized Education Program (IEP) are to be "based on peer-reviewed research" (20 USC 1414(d)(1)(i)(IV)) as intensive progress monitoring continues. What is different is the level of *intensity*. Children in Tier 3 are likely to receive individualized instruction in an attempt to help them overcome their learning problems.

Although special education was once thought of as a "place," IDEA 2004 clearly states that special education is "a service for such children rather than a place where such children are sent." (20 U.S.C. 1400(c)(5)(C)).

Again, Tier 3 services are similar but more intense. Because special education is a *service*, the child can receive special education services in an inclusive or general education setting, or intensive remedial services in a one-on-one setting. The intensity depends on the child's educational needs and learning style. As the child receives more intensive instruction from the teacher and others after being classified as having a SLD, the desired goal is, again, response-to-intervention.

Classifying Non-responders as Having SLD: Silver Lining or Storm Clouds?

When IDEA was modified in 2004 to include language about RtI, many people thought this was a great advance. Since ability-achievement discrepancy was no longer required, RtI could be used to identify children with SLD. After all, this was the Individuals with Disabilities Education *Improvement* Act of 2004. Instead of spending time and money diagnosing and placing children in special education, in theory the doors were opened to spend these resources to help children learn.

Almost immediately, concerns were raised about RtI as a method for determining whether a child had a SLD. The problems with using RtI as a diagnostic process arose from two different but related arguments.

First, it was unclear that RtI, or the failure to respond to interventions, was a justifiable method for determining SLD. Clearly, there are many reasons why a child may not respond to interventions. Too often, the child's teacher is not adequately trained in using appropriate research-based interventions. Even with adequate teacher training, it is difficult to determine if the interventions were completed according to high standards (i.e., implemented with integrity). To assume that a child was SLD by default seemed like a big mistake to many who work with these children.

A second concern, which is also a concern with the ability-achievement discrepancy method, is that a child's failure to respond to interventions does not address the statutory definition of SLD. Some argued that since RtI data did not address, or even evaluate, the basic psychological processes, it was not sufficient to classify children with a SLD.

Limitations of RtI: In Search of "Scientific Research Based Interventions"

There are many concerns about identifying a child with SLD on the basis of non-response. One concern is the difficulty of establishing the criteria for "scientific research-based intervention" mandated in IDEA 2004 at 20 USC 1414(b)(6). Often, there are no mutually agreed upon instructional methods and strategies for different academic subjects and in different grades. Teachers may not be adequately trained to teach and may not have the knowledge and skills to use scientifically based instructional practices and assessments.

Additionally, the measures used to identify response may not have adequate reliability and validity. Even if measures were valid and reliable, it is unclear whether determination of response or non-response should be based on local norms (how a child is performing when compared to the other children in the classroom or school district) or national norms (how the child is performing when compared to all children in a given grade or age).

Finally, there are no unified standards for determining whether an individual child's response pattern is strong enough to be considered a "responder" or poor enough to be considered a "non-responder."

The instructional infrastructure for RtI is largely absent in many school districts. The research base for "research-based intervention" is primarily limited to basic reading in younger children. This does not address the multiple types of academic problems in the schools, problems that differ for different grades, ability levels and diverse nature of different learning disabilities. Since there are really no "research-based interventions" available for use in RtI, and determining whether a non-responder has a SLD, one must wonder why Congress added this new method to the IDEA. How could Congress enact a law that includes a method that has so little scientific support?

Efforts are being made to establish what constitutes a "research-based intervention". For instance, A Principal's Guide to Intensive Reading Interventions (www.fcrr.org/Interventions/pdf/APrincipalsGuide.pdf) published by the Florida Center for Reading Research (www.fcrr.org) explains that "Scientific reading research has identified a number of important characteristics of effective interventions for student who are at-risk for reading difficulties:

- They should be offered as soon as it is clear the student is lagging behind in the development of skills or knowledge critical to reading growth
- They must significantly increase the intensity of instruction and practice and they should be available in a range of intensities
- They must provide the opportunity for explicit (direct) and systematic instruction and practice along with cumulative review to insure mastery
- They must provide skillful instruction including good error correction procedures, along with many opportunities for immediate positive feedback and reward
- They must be guided by, and responsive to data on student progress
- They must be motivating, engaging, and supportive; a positive atmosphere is essential.

Although this provides us with an understanding of what makes for good teacher instruction, this does little to address the content, curriculum, and method for determining success or failure to respond to specific educational criteria. The difficulty posed by these instructional problems cannot be resolved easily. These problems forced RtI proponents to fall back on the Problem-Solving Model (PSM) and single subject experimental designs to determine response or non-response. Because this research happens only at the child-level, RtI proponents argue that there is no need for definitive data at the group, curricula, teacher, or measurement level.

In the PSM, you try an intervention and see if it works. The problem behavior is defined in terms you terms you can see and count (i.e., observable and measurable) and then an alternative replacement behavior is defined (i.e., target behavior), and then you try the intervention. If the intervention doesn't work, you modify it until it does work. If we measure the target behavior, no matter what we are doing, or measuring, or the goals we set, we are at least measuring the behaviorover time to see if the behavior changes in a positive direction (response), or does not improve or gets worse (non-response). It is essential to have a beginning data point and then measure changes over time. This methodology is in the spirit of behavioral psychology or an experimental analysis of behavior. It is here that RtI proponents locate the "science" necessary to determine a child's response to a "scientific, research-based intervention."

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Are Problem-Solving and Single Subject Designs the Missing Links?

Although the PSM and single subject designs seem to be a way around the problems with instruction, curricula, and measurement when using RtI to determine SLD, they do not provide sufficient answers to these problems, especially when the PSM approach is used. We need to examine the assumptions for using the PSM and single subject designs to see why they cannot be used.

Problem Solving Model

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If we measure the target behavior, no matter what we are doing, or measuring, or the goals we set, we are at least measuring the behaviorover time to see if the behavior changes in a positive direction (response), or does not improve or gets worse (non-response). It is essential to have a beginning data point and then measure changes over time. This methodology is in the spirit of behavioral psychology or an experimental analysis of behavior. It is here that RtI proponents locate the "science" necessary to determine a child's response to a "scientific, research-based intervention."

Single Subject Designs

Single subject designs work like this. You collect baseline data (how the child is doing before intervention), introduce an intervention, then see if the data collected thereafter shows a change in the child's academic achievement. That is good as long as the child gets better, because we assume that the intervention is the reason why the child got better.

In experimental analysis of behavior, you go back to baseline by removing the intervention. This is called a "reversal phase." You see if the child's behavior declines, and then re-introduce the intervention, and see if the behavior improves again (ABAB design).

Alternatively, you can introduce the intervention in one subject or one setting at a time, and see if the behavior improves each time you introduce it (multiple baseline design). In this way, you establish causation – the change you introduce caused the response.

There are several problems with this "substitution" for "research-based interventions." First, it would be difficult, if

not impossible, to do a reversal phase in the schools. Could we justifiably take away an intervention that appears to be working? The answer is no. This would be difficult to justify.

A multiple baseline approach might work, but it would be difficult to establish that a word reading intervention undertaken during a language arts class could then be attempted in a math class, with results comparable across conditions. Therefore, in practice, RtI would not typically use "true" single subject designs. Even if successful, causation could not be established.

A second more significant problem with this "substitute" has to do with the assumptions of single subject designs. This assumption is that you only change one variable (in RtI, the instructional method) and see if the child responds. If the child responds, then you can assume (but not establish causation) that the intervention resulted in the response.

However, we have a very different issue if the child does not respond. Can we assume, by default, that the child who does not respond has a SLD? No. We can only conclude that the child did not respond. Maybe we used the wrong intervention, the wrong teacher, the wrong measurement, the wrong goal, and the wrong method for determining response. We do not know why the child did not respond.

Finally, one could make an argument that if all things were consistent, the teaching, curricula, measurement, goals, decision-points, etc., a child could be considered SLD if the baseline data and the intervention data were the same. This might work if the Standardized RtI approach was the one used, but unfortunately, this conclusion could not be supported using the Problem-Solving Model (PSM) RtI approach.

Why? Because the PSM requires that the target behavior, instructional technique, measurement system, and goal/objective be individualized for the child. In addition, the PSM requires modification of one or more of these variables over time in an attempt to achieve response. That is great if the child responds, but if there is no response, we have a significant problem. There is no way to know if a non-responder is SLD, or if one of the multiple changes that happened during the PSM approach resulted in non-response. You cannot change multiple things (independent variables) in single subject designs, and conclude that one of them resulted in change (or lack of change) in the outcome (i.e., dependent variable).

Recognizing the Limitations of Any Single Method

There is no way to determine if a child has SLD based on the ability-achievement discrepancy, and there is no way to determine if a child has a SLD based on the non-response to

intervention. So, what is a responsible practitioner to do?

In response to several scholarly papers and testimony (including special journal issues in the Journal of Learning Disabilities (December 2005) (http://ldx.sagepub.com/content/vol38/issue6/), Psychology in the Schools (September 2006) (http://www3.interscience.wiley.com/journal/112771141/issue) and Psychology in the Schools (December 2006)(November 2006) (http://www3.interscience.wiley.com/journal/113347188/issue), the U.S. Department of Education decided that it must temper its enthusiasm for RtI by adding an additional method for determining SLD in the final special education regulations. In fact, this "third method" is an attempt to allow states and practitioners to comply with all aspects of the SLD statutory (SLD definition) and regulatory (SLD method) requirements.

When the U.S. Department of Education published the final regulations, they issued an "Analysis and Commentary" about the regulations. This document and the Final Regulations were issued on August 14, 2006 and printed in Volume 71, No. 156 of the Federal Register beginning at page 46540. (Note: The full text of the Commentary is available on Wrightslaw (http://www.wrightslaw.com/idea/commentary.htm). In the Commentary, the U.S. Department of Education explained that:

"Consistent with § 300.304(b) and section 614(b)(2) of the Act, the evaluation of a child suspected of having a disability, including an SLD, must include a variety of assessment tools and strategies and cannot rely on any single procedure as the sole criterion for determining eligibility for special education and related services. This requirement applies to all children suspected of having a disability, including those suspected of having an SLD. (At page 46646)

. . .

"RTI is only one component of the process to identify children in need of special education and related services. (At page 46647)

. . .

"An RTI process does not replace the need for a comprehensive evaluation. A public agency must use a variety of data gathering tools and strategies even if an RTI process is used. The results of an RTI process may be one component of the information reviewed as part of the evaluation procedures required under §§ 300.304 and 300.305. As required in § 300.304(b), consistent with section 614(b)(2) of the Act, an evaluation must include a variety of assessment tools and strategies and cannot rely on any single procedure as the sole criterion for determining eligibility for special education and related services. (At page

46648)"

Thus, RtI can be part of a SLD comprehensive evaluation, but may not be the sole determinant of SLD. RtI cannot replace the need for a comprehensive evaluation. The law requires that the child receive a comprehensive evaluation in all areas of suspected disability, including cognitive, linguistic, and motor functioning, before the child may be classified with a SLD. Following a comprehensive evaluation, a multidisciplinary team can determine whether a child has a SLD and requires special education services.

The Third Method: Combining RtI with Cognitive/Neuropsychological Assessment

There are several models available for use in this "Third Method," but I will focus on one. In this model, published in 2006 as the lead article in *Psychology in the Schools* (see Hale, Kaufman, Naglieri, and Kavale, Implementation of IDEA: Integrating Response to Intervention and Cognitive Assessment Methods at http://www.shastalink.k12.ca.us/selpa/Fall 2006 Naglieri, Kaufman.pdf), RtI is combined with cognitive and neuropsychological assessment in a balanced practice model.

Instead of saying that we should use only the Standardized RtI approach, or the Problem-Solving Model RtI approach, we argue both approaches should be used in Tiers 1 and 2 respectively. By using both RtI methods, we know we have tried our best to help children who are struggling. Most children who are struggling academically can be served in these Tiers, and there would be no need for a standardized evaluation of psychological processes.

However, instead of classifying non-responders as SLD and finding them eligible for special education services by default (the RtI-only approach), we know that non-response can happen for many reasons. A comprehensive evaluation should include an assessment of the psychological processes, including the basic academic skills of reading, writing, arithmetic and spelling that are assumed to be deficient and the cause of the child's learning problem. This could explain why the response wasn't successful, and ensure that the unsuccessful intervention wasn't due to other factors - poor implementation of the intervention, the teacher, curriculum, measurement tool, goals or expectations, etc.

If we tried RtI, and it was not successful in helping the child overcome the problem, and a comprehensive evaluation reveals deficits in the psychological processes that cause the SLD, then we can be assured that the statutory and regulatory SLD methods were adhered to before classifying any child with SLD.

Psychological Processes: Do They Matter?

A comprehensive evaluation of psychological processes is necessary because there is a great deal of cognitive and neuropsychological research that children with "true" SLD have brain-based learning deficits, not delays. Hundreds of studies have examined how children with SLD process information in their brain, and how their brain functioning differs from children who do not have trouble learning. Although they have deficits that interfere with learning and achievement, does this mean they are defective?

No. On the contrary, research shows that nearly everyone has cognitive strengths and weaknesses. We need to recognize and value these individual characteristics and help all children learn and succeed in the classroom and society. Differentiated instruction needs to meet the diverse needs of children, not just children with disabilities. Although all children need instruction that accommodates their learning differences, children with disabilities need specialized instruction for them to be successful.

We need to remember the primary purpose of the Individuals with Disabilities Education Act (IDEA 2004), which is "to ensure that all children with disabilities have available to them a free appropriate public education . . . designed to meet their **unique needs** and **prepare them for further education, employment, and independent living**" (20 USC 1400(d)(1)(A)) and "economic self-sufficiency." (20 USC 1400(c)(1))

If we judged Albert Einstein on the basis of RtI, he would be d a "non-responder" because he struggled so much during formal schooling (many claim he had SLD). Obviously, his genius was eventually realized. Every child must have this chance. Objective cognitive and neuropsychological testing are ways to reveal these unique individual characteristics and help design specialized instruction so all children can succeed, including those with SLD.

In addition, we know that not every child with a reading or math SLD has the same type of problem, or responds to the same type of intervention, Researchers have discovered different types of brain-based deficits that cause different types of SLD (called subtypes) within particular academic areas (i.e., reading, math, writing).

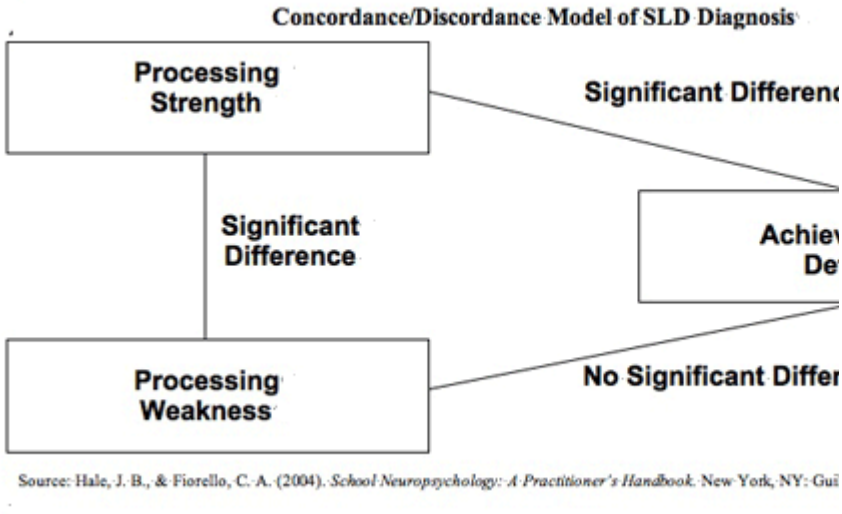
Identifying the "deficit in the basic psychological processes" can help pinpoint the cause of the child's academic problem. This information can also help us develop appropriate interventions to help that child. Each deficit results in a particular type of learning problem. In many cases, several problems occur together (called co-morbidity). Good comprehensive evaluations can help us understand how a child thinks, learns, and behaves.

Concordance-Discordance Model of SLD Determination

We (Hale & Fiorello, 2004) offer a more justifiable method than ability-achievement discrepancy for determining SLD in non-responders. This method is the Concordance-Discordance Model of SLD determination. Using this method, a child is identified as having cognitive strengths and cognitive weaknesses that are (statistically) different from one another (i.e., discordance).

The cognitive strengths should also be (significantly) different from the academic deficit (i.e., discordance). Finally, the cognitive weakness (i.e., the deficit in the basic psychological processes) should *not* be different from the achievement deficit (i.e., concordance) as this should be the deficit that is causing the learning problem.

This method, determined using a statistical formula called the *Standard Error of the Difference* makes good clinical sense and is consistent with the "third method" of SLD identification under IDEA 2004. This information can help determine whether a child has a SLD, and can also provide invaluable information to guide the selection of an appropriate intervention after a child is classified.



Linking Assessment to Intervention One Child at a Time

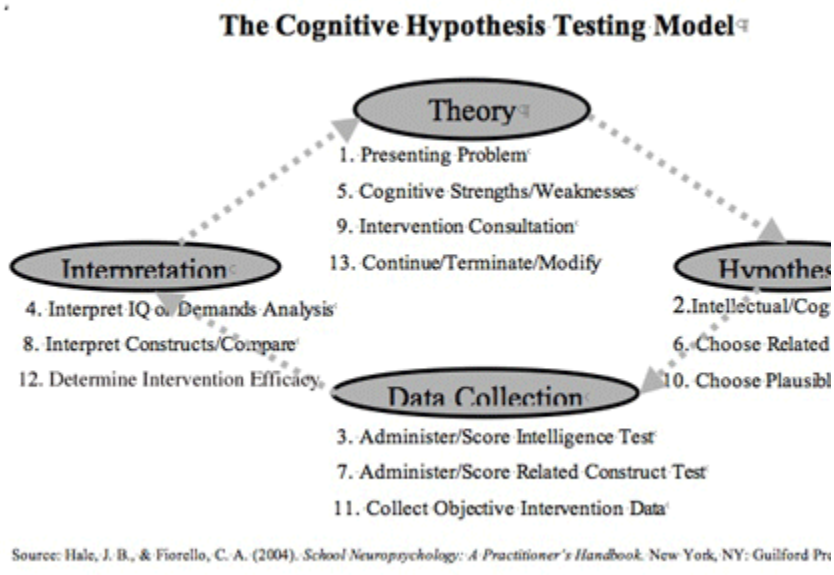
Albert Einstein described insanity as "doing the same thing over and over again and expecting different results." In the RtI-only approach, doing more of the same for a child who has not responded previously does not make sense when the additional information gained from a comprehensive evaluation could guide subsequent intervention efforts.

We do not argue this information would result in a "cure" for the brain-based learning deficit the child displays. We argue problem solving can continue and deficits can be remediated using information about the child's cognitive strengths and weaknesses to develop, implement, evaluate, and modify interventions until success is achieved.

Cognitive and neuropsychological assessment is not about admiring problems. These assessments are tools to help educators teach children and provide appropriate instruction. Standardized cognitive and neuropsychological assessment tools are among the most carefully constructed measures available. Shouldn't we use them to better understand a child's learning problems and guide interventions?

In the Cognitive Hypothesis Testing (CHT) model, we use the scientific method for children who do not respond to standard interventions. This CHT model uses cognitive and neuropsychological measures in a comprehensive evaluation to establish Concordance-Discordance. We test the initial hypotheses derived from an intellectual/cognitive test with other measures, and check to ensure that findings are related to the child's real world experience in the classroom, home, and community (i.e., ecological validity).

Next, we ensure that the results are meaningful for intervention by using the problem-solving model to develop, monitor, evaluate, and change interventions until success is achieved (i.e., treatment validity). These steps help to overcome criticisms of cognitive and neuropsychological measures by ensuring that they are relevant for determining whether a child has SLD and whether this results in meaningful changes in the child's life (i.e., treatment validity).



Source: Hale, J. B., & Fiorello, C. A. (2004). *School Neuropsychology: A Practitioner's Handbook*. New York, NY: Guilford Pr

Evidence-Based Practice Means *All* Evidence-Based Practice

I began this paper by cautioning readers against the inclination to jump on bandwagons in education. I advised that what seems to be a panacea or cure-all for educational problems often does not unfold as expected.

While RtI is a remarkable advance in educational practice, it does have limitations. The same is true for cognitive and neuropsychological assessment, as this information must be examined within the context of the child's life experiences, and ultimately tied to intervention. Neither approach is sufficient to meet the needs of all children.

We need RtI to address problems quickly and efficiently for children who are struggling to learn basic academic skills. Many of our resources can be put into preventing SLD and other disorders, so it is critical to adopt RtI principles and practices. Not only will this help many children succeed in the classroom, but it can also reduce testing loads, and allow children who receive comprehensive evaluations to receive thorough ones.

Polarized positions are often contrasted with one another in an attempt to gain favor for a single approach. This perpetuates idealistic practices, not pragmatic ones. The methods describe here, including Standardized and PSM RtI, and cognitive/neuropsychological assessment, have the necessary research backing to be considered *evidence-based*, but neither approach is sufficient for serving every child's needs. *All* evidence-based practices that realistically evaluate the advantages and disadvantages of positions lead to the best outcomes for all children in our diverse society.

Children and their needs should guide the practice of education, psychology, and other professions in our schools. They deserve that much.

References for Further Reading

Note: ***Response to Intervention: Guidelines for Parents and Practitioners*** by James B. Hale, Ph.D.is available as a printer-friendly PDF document and in html:

http://www.wrightslaw.com/idea/art/rti.hale.pdf

http://www.wrightslaw.com/idea/art/rti/hale.htm

About the Author

Dr. Hale has served children, families, and educators over the past 20 years as a certified special education teacher and school psychologist, licensed pediatric psychologist, and board-certified school neuropsychologist in school, residential, and medical settings. He has taught undergraduates, graduate students, and physicians in psychology, pediatrics, neurology, and neuroscience departments.

A frequent national and international presenter, Dr. Hale has authored numerous articles and chapters, including the critically acclaimed bestselling book, School Neuropsychology: A Practitioner's Handbook.

As SNAP-FIT (Student Neuropsychological Profiles for Innovative Teaching) Project Director, Dr. Hale provides differentiated instruction for children with and without disabilities.

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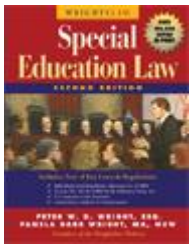

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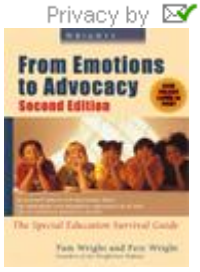

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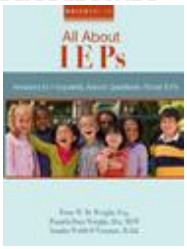

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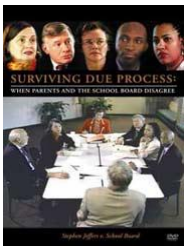

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