Evaluation for Specific Learning Disabilities:

Allowable Methods of Identification & Their Implications

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The Individuals with Disabilities Education Act (IDEA) defines the term "specific learning disabilities" (SLD) and outlines the methods that may be used to identify students with SLD. The law has remained unchanged since 2004. Yet, since then, new research has shed light on the nature of learning disabilities and the validity of existing methods to identify them. Each of the allowable methods has unique challenges, and the eligibility criteria for special education under the SLD category is not consistent across states or even across school districts within the same state.

This paper examines the history of the federally permissible methods to determine eligibility for special education due to SLD. It describes advantages, challenges, and research related to the evaluation frameworks currently allowed under federal law and highlights selected state practices to demonstrate the variability in eligibility methods across the country.

Introduction

Among the 13 disability categories covered by IDEA, specific learning disability (SLD) is the only one for which federal law specifies the allowable methods to determine eligibility.[1] Prior to 2004, IDEA only allowed the use of the IQ-achievement discrepancy model—a calculation of the difference between a student's academic performance and IQ. While the latest reauthorization of IDEA in 2004 still permits the use of the severe discrepancy model, it encourages states to move away from this method. The 2006 federal regulation for IDEA Part B expands on the permissible evaluation frameworks when determining special education eligibility within the SLD category:

- "A severe discrepancy between intellectual ability and achievement";
- "A process based on the child's response to scientific, research-based intervention" (often referred to as response to intervention, or RTI); and
- "The use of other alternative research-based procedures." [2]

1 Individuals with Disabilities Education Act, 20 U.S.C. § 602 (2004).

2 U.S. Office of Education. (1977). Assistance to states for education of handicapped children: Procedures for evaluating specific learning disabilities, *Federal Register, 42*(250), 65082–65085; § 300.307; Note: § 300.309 describes the permissible criteria for evaluation for students suspected of having a specific learning disability in broader terms. Specifically, in addition to general performance, a child must either (1) not make "sufficient progress … based on a child's response to scientific, research-based intervention," or "a child exhibits a pattern of strengths and weaknesses in performance, achievement, or both…."

There are two primary approaches that states permit under the alternative research-based procedure umbrella: patterns of strengths and weaknesses cognitive models, and patterns of strengths and weaknesses based on a comparison of achievement scores across academic areas.

Over the past three decades, there has been considerable progress in understanding the neurobiology of learning and the underlying mechanisms associated with SLD and related disorders. In addition, there is a growing body of research about the validity of methods used in the SLD identification process.

All of the federally allowable methods to determine eligibility have unique challenges, some more significant than others. Given the mixed results of the research on SLD identification methods and implementation challenges, eligibility criteria for special education due to SLD vary significantly across, and sometimes even within, states.

I. History of SLD in Federal Law

For all students suspected of having a disability, local education agencies (LEAs) must perform a comprehensive evaluation that assesses all areas of suspected disability. IDEA requires the evaluation to consider information provided by the parents, current assessments, and observations.[3] However, since 1977, in order for a child to qualify for special education under the SLD category, there have been additional, specific requirements and considerations set out by IDEA.[4]

In 1977, the federal regulations associated with P.L. 94-142, the Education for All Handicapped Children Act, mandated specific procedures to identify students with SLD.[5] To this day, federal law has not outlined specific procedures for any of the other 12 disability categories.

Operationalizing the idea of unexpected underachievement

Early research on SLD described the disorder as one characterized by *unexpected underachievement*. In other words, children with SLD demonstrate a lack of progress or inconsistent performance that is unexplained.[6] The need to operationalize a process for SLD identification resulted in a "discrepancy approach." In practice, students who were found to have a severe discrepancy between their

3 Ibid.

4 Ibid.

5 U.S. Office of Education. (1977). Assistance to states for education of handicapped children: Procedures for evaluating specific learning disabilities, *Federal Register, 42*(250), 65082–65085.

6 Zumeta, R. O., Zirkel, P. A., & Danielson, L. (2014). Identifying specific learning disabilities: Legislation, regulation, and court decisions. *Topics in Language Disorders, 34*(1), 8–24. doi:10.1097/TLD.0000000000000006

intelligence (or ability) and academic achievement were eligible for SLD identification.[7]

Reflecting the best research available at the time, in 1977 the U.S. Department of Education issued regulations for P.L. 94-142, the Education for All Handicapped Children Act, that mandated that states require a severe discrepancy approach to determine eligibility for special education for students suspected of having SLD.[8] The federal regulation does not dictate a specific procedure for the severe discrepancy, but this approach generally means that an evaluator administers both an IQ test and standardized achievement measures and compares the child's achievement in skills such as reading and math to their IQ score. Every state set its own criteria and specific procedure for severe discrepancy, using a calculation that often included test scores, student age, and other criteria, and determined a threshold for discrepancy that would determine whether or not a child would be eligible for special education services.[9]

A push to reconsider evaluations for students suspected of having SLD

In 2001, the U.S. Department of Education's Office of Special Education Programs (OSEP) convened a group of learning disability advocacy groups to discuss possible changes to IDEA. A key topic of discussion was the eligibility requirements for IDEA under an SLD classification, given implementation challenges and poor reliability and validity with the IQ-achievement discrepancy method (discussed in greater detail later in this paper). At a subsequent Learning Disability Summit, a consensus group of the researchers proposed prohibiting the discrepancy model and instead adopting a hybrid method that encouraged education teams to look at multiple points of data. A hybrid method would consider low achievement, application of the exclusionary criteria, and the use of instructional response as an alternative approach to identifying students with SLD under IDEA.[10]

To implement this, educators would need to use a data-based approach—"response to intervention," or RTI—to analyze and make decisions about a student's response to instruction. The RTI process helps educators serve *all* struggling students, no matter their area of difficulty, by screening all students, providing high-quality evidence-based instruction, and offering progressively intensive supports and services to students who need them.

7 Ibid.

8 U.S. Office of Education. (1977). Assistance to states for education of handicapped children: Procedures for evaluating specific learning disabilities, *Federal Register, 42*(250), 65082–65085.

9 Ibid.

10 Elksnin, L. K., Bryant, D. P., Gartland, D., King-Sears, M., Rosenberg, M. S., Scanlon, D., Strosnider, R., Wilson, R. (2001). LD summit: Important issues for the field of learning disabilities. *Learning Disability Quarterly, 24*(4), 297–305. doi:10.2307/1511118

In general, RTI is a process that allows children to move through different levels of instruction that vary in intensity as needed. An RTI process yields progress monitoring and assessment data that can be part of a method for identifying SLD and for making a special education eligibility determination. Education professionals use these data to evaluate whether a child is making sufficient progress compared to their peers. If the child receives progressively targeted and intensive instruction and support and is still demonstrating a dual discrepancy—not progressing at a rate similar to their peers and demonstrating achievement below their peers—and there are no other factors that explain low achievement, then it may be determined that specialized instruction and supports in special education are needed to ensure meaningful progress.

Research from the National Institute of Child Health and Human Development (NICHD) and the Institute of Education Sciences (IES) demonstrating the importance of well-designed interventions for early reading and math problems was fundamental to building support for RTI. In 2001, Reid Lyon and his colleagues argued that early identification and prevention programs could reduce the number of students with reading problems by up to 70 percent.[11] As evidenced by discussion at the 2001 LD Summit, many researchers believed that systematically providing early intervention in basic reading skills in primary general education classrooms could make it more clear who needed special education, while at the same time providing children with intensive interventions.[12]

Current federally allowable methods for the evaluation of students with SLD

As a result of these developments, the reauthorization of IDEA in 2004 and the 2006 federal regulations for IDEA Part B significantly changed the federal requirements for evaluations for special education under the SLD category and afforded states more flexibility to select among three methods. Overall, the reauthorization further encouraged education professionals to use more than one data point to determine eligibility and encouraged the use of researched-based methods separate from the IQ-ability achievement model.[13]

Section 300.307 of the regulations for Part B of IDEA lists three permissible approaches. Specifically, it states that:

11 Lyon, G. R., & Fletcher, J. M. (2001). Early warning system: How to prevent reading disabilities. *Education Matters, 1*(2), 23–29.

12 Elksnin, L. K., Bryant, D. P., Gartland, D., King-Sears, M., Rosenberg, M. S., Scanlon, D., Strosnider, R., Wilson, R. (2001). LD summit: Important issues for the field of learning disabilities. *Learning Disability Quarterly, 24*(4), 297–305. doi:10.2307/1511118

13 Ibid.

"States must adopt … criteria for determining whether a child has a specific learning disability …. [T]he criteria adopted by the State—

1. "Must not require the use of the severe discrepancy between intellectual ability and achievement for determining whether a child has a specific learning disability…";
2. "Must permit the use of a process based on the child's response to scientific, research-based intervention";
3. "May permit the use of other alternative research-based procedures for determining whether a child has a specific learning disability."[14]

As mentioned in the introduction, for the purposes of this paper, we discuss two evaluation approaches within the alternative research-based procedures: (1) patterns of strengths and weaknesses cognitive models, and (2) patterns of strengths and weaknesses based on a comparison of achievement scores across academic areas.

II. Research and Implementation of Federally Permissible Approaches

A. Response to Intervention (RTI)

IDEA requires all states to allow the use of data-based frameworks that incorporate assessments of instructional response as a means to evaluate students suspected of having SLD for special education.

Research

Numerous studies highlight the effectiveness of elements of the RTI framework. For example, early interventions support struggling learners and prevent them from falling behind. In addition to the early research by NICHD mentioned above, longitudinal research with kindergartners found that increasingly intensive supplemental support with kindergarten students at risk for reading failure resulted in increased trajectories that sustained over time and exceeded the 50th percentile.[15] Similar results were also found with older students,[16,17] which resulted in fewer students being referred to and placed

14 Individuals with Disabilities Education Act, 20 U.S.C. § 602 (2004); Assistance to States for the Education of Children With Disabilities and Preschool Grants for Children With Disabilities, 34 CFR § 300.307 (2006).

15 Simmons, D. C., Coyne, M. D., Kwok, O. M., McDonagh, S., Harn, B. A., & Kame'enui, E. J. (2008). Indexing response to intervention: A longitudinal study of reading risk from kindergarten through third grade. *Journal of Learning Disabilities, 41*(2), 158–173. doi:10.1177/0022219407313587

16 Vaughn, S., Cirino, P. T., Wanzek, J., Wexler, J., Fletcher, J. M., Denton, C. D., Barth, A., Romain, M., & Francis, D. J. (2010). Response to intervention for middle school students with reading difficulties: Effects of a primary and secondary intervention. *School Psychology Review, 39*(1), 3–21.

17 Wanzek, J., & Roberts, G. (2012). Reading interventions with varying instructional emphases for fourth graders with reading difficulties. *Learning Disability Quarterly, 35*(2), 90–101.

into special education.[18] A review of research concluded that there was strong evidence for providing intensive systematic instruction to small groups of students who demonstrate risk for reading failure, and moderate evidence to support screening students for reading problems.[19]

Implementation

There is considerable debate among researchers about the practicality of implementing RTI for SLD identification. Some question if RTI can effectively distinguish between SLD and typical low achievement, especially for certain students (e.g., twice exceptional).[20] However, others highlight that when using an RTI framework, struggling students receive evidence-based instruction before determination of eligibility for special education, which can prevent at-risk students from falling further behind.[21]

Effective RTI implementation assumes the use of valid, reliable assessment measures and evidence-based interventions. While the research is promising, the implementation of RTI has significant challenges, primarily because too often some of these essential components are missing.

There are several challenges with the implementation of RTI. They include:

RTI can be difficult to implement with fidelity. Many LEAs and schools across the country do not properly implement RTI or other data-based problem-solving approaches, which limits the effectiveness of the RTI approach.[22] Too often, teachers and other school personnel lack the knowledge and skills to identify and use evidence-based interventions and monitor student progress. They frequently lack the time to administer necessary supplemental interventions.

There has only been one large-scale evaluation of RTI implementation, and it confirmed the existence of these challenges. The National Center for Education Statistics (NCES) commissioned a national

18 VanDerHeyden, A. M., Witt, J. C., & Gilbertson, D. (2007). A multi-year evaluation of the effects of a response to intervention (RTI) model on identification of children for special education. *Journal of School Psychology, 45*(2), 225–256. doi:10.1016/j.jsp.2006.11.004

19 Gersten, R., Compton, D., Connor, C. M., Dimino, J., Santoro, L., & Linan-Thompson, S. (2009). *Assisting students struggling with reading: Response to intervention (RTI) and multi-tier intervention in the primary grades* (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

20 Reynolds, C. R., & Shaywitz, S. E. (2009). Response to intervention: Ready or not? Or, from wait-to-fail to watch-them-fail. *School Psychology Quarterly, 24*(2), 130–145. doi:10.1037/a0016158

21 Elksnin, L. K., Bryant, D. P., Gartland, D., King-Sears, M., Rosenberg, M. S., Scanlon, D., Strosnider, R., Wilson, R. (2001). LD summit: Important issues for the field of learning disabilities. *Learning Disability Quarterly, 24*(4), 297–305. doi:10.2307/1511118

22 Balu, R., Zhu, P., Doolittle, F., Schiller, E., Jenkins, J., & Gersten, R. (2015). *Evaluation of response to intervention practices for elementary school reading* (NCEE 2016-4000). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

evaluation of RTI in 2010. Released in 2015, the evaluation compared 246 schools in 13 states: 146 schools that implemented RTI and 100 schools that did *not* implement RTI. The main research question was narrow and did not address the use of RTI in the SLD eligibility determination. Specifically, it asked: How well did "the use of universal screening, including a cut-point for designating students for more intensive Tier 2 and Tier 3 interventions, increase children's performance on a comprehensive reading measure?"[23] The evaluation found that RTI was not effective in improving student performance and that in some grades, students who received interventions performed worse than students who did not.

Importantly, the study also found that a majority of the schools did not implement RTI with fidelity. For instance, most schools in the sample did not implement comprehensive screeners and did not provide students at each tier with individualized interventions. In addition, 60 percent of the schools in the study administered interventions during core instruction rather than in addition to the instruction that all children should receive.[24] Ironically, a large-scale analysis by a group of some of the same researchers found positive results when evaluating the results of data-based methods implemented by researchers, rather than by schools.[25]

Many proponents of RTI argued that the NCES study was essentially an implementation study and too narrowly focused. Moreover, proponents highlight that poor implementation does not mean that the RTI data-based framework is ill-conceived or that it lacks merit, especially given the number of studies that have shown a positive effect on student learning.[26,27] Instead, they argue that the findings related to poor implementation point to the need for more careful study about how best to ensure that the undisputedly valuable components of RTI (e.g., universal screening, progress monitoring, increasingly intensive and individualized instruction and support) are implemented with fidelity and that students are not subject to unneeded testing or delays in evaluation, but instead are assured high-quality intervention within a system of accountability for progress.

23 Ibid.

24 Ibid.

25 Gersten, R., Newman-Gonchar, R. A., Haymond, K. S., Dimino, J. (2017). *What is the evidence base to support reading interventions for improving student outcomes in grades 1–3?* (REL 2017–271). Washington, DC: Regional Educational Laboratory Southeast.

26 Burns, M. K., Appleton, J. J., & Stehouwer, J. D. (2005). Meta-analytic review of responsiveness-to-intervention research: Examining field-based and research-implemented models. *Journal of Psychoeducational Assessment, 23*(4), 381–394. doi:10.1177/073428290502300406

27 Fletcher, J. M., & Vaughn, S. (2009). Response to intervention: Preventing and remediating academic difficulties. *Child Development Perspectives, 3*(1), 30–37. doi:10.1111/j.1750-8606.2008.00072.x

RTI can lead to delays in evaluation. By law, teams of education professionals must not delay or needlessly extend the timeline for student evaluation in order to complete an RTI process.[28] However, the RTI process—by its nature—demands sufficient time to provide interventions, gather data, and monitor progress.

There is confusion among education professionals, LEAs, and states on how to appropriately use RTI, which is often a long-term process, with the limited timeline required for a comprehensive evaluation. For instance, it is not unusual for schools to refer a child for an evaluation only after the completion of Tier 3 of RTI. For many students, this can take many months or even a year or more. Delaying an evaluation in this way can deprive a student from receiving more intensive services provided under IDEA, a clear denial of their rights and protections under federal law. Schools should not wait to complete a specific number of tiers of intervention before referring a child for SLD identification evaluation.

Under IDEA, a parent or LEA has the right to initiate a request for evaluation at any time.[29] A student must not be required to complete each tier of RTI before an evaluation is conducted. IDEA requires that the team of education professionals take no more than 60 days to complete an evaluation after parental consent. The U.S. Department of Education issued guidance in 2011 to clarify that schools may not delay or deny an evaluation on account of the RTI process.[30] Instead, schools should use all available data, including assessments of instructional response, in the evaluation and determination process, but must proceed with a comprehensive evaluation even though the RTI process is ongoing. RTI is not a prerequisite for a special education evaluation. Instead, RTI should be thought of as a dynamic process that will provide data on the student's progress when receiving tiered instruction and supports while the evaluation takes place. In other words, RTI is *not* the process of identifying a potential for disability and then completing three tiers of intervention before making an SLD determination. However, it *is* the process of identifying a potential for disability and SLD determination with the data that already exist from a well-implemented tiered prevention framework.

Districts can seek approval for an exception to the 60-day timeline for an evaluation, and many do when they need more time to collect RTI data to make the eligibility determination. Thus, more oversight and training is needed to prevent delays.

Effective implementation of RTI can be costly. As evident in the NCES study, RTI is often not implemented with fidelity. This may be due to the fact that professional development and

28 Individuals with Disabilities Education Act, 20 U.S.C. § 602 (2004); Assistance to States for the Education of Children With Disabilities and Preschool Grants for Children With Disabilities, 34 CFR § 300.311(a)(6) (2006).

29 Ibid.

30 U.S. Department of Education, Office of Special Education and Rehabilitation Services. *A response to intervention (RTI) process cannot be used to delay-deny an evaluation for eligibility under the Individuals with Disabilities Education Act (IDEA), January 21, 2011.*

evidence-based instruction and intervention can be costly to provide at scale.

RTI can involve arbitrary cuts. Education professionals often implement the instructional response approach differently. Approaches based on the assessment of instructional response that use hard thresholds and that do not take into account measurement error have the same type of reliability issues as cognitive discrepancy methods (as described below).

B. IQ-Achievement Discrepancy Method

The IQ-achievement discrepancy method is still allowable under the current legal framework, although IDEA prohibits states from *requiring* districts to use it.[31] The discrepancy method appears easy to implement on its surface, but decades of research demonstrate its lack of validity.

Research

By 1977, the IQ-achievement discrepancy method was the primary approach for determining eligibility for special education under an SLD category, as laid out in regulations.[32] This method assumed that children with SLD were qualitatively different from children who have low achievement, with the distinction being that traditional low achievers would have a corresponding low IQ, while children with SLD would have a higher IQ.[33]

Since 1977, numerous studies have undermined the validity of the IQ-achievement discrepancy method.[34] Despite its widespread use, research shows that neither IQ nor the discrepancy method are valid predictors of cognitive ability and academic achievement.

In 2002, a meta-analysis of 46 studies found that there was a substantial overlap in cognitive abilities between IQ-discrepancy and IQ-consistent groups,[35] and that IQ-discrepant and IQ-consistent students

31 U.S. Office of Education. (1977). Assistance to states for education of handicapped children: Procedures for evaluating specific learning disabilities, *Federal Register, 42*(250), 65082–65085.

32 Zumeta, R. O., Zirkel, P. A., & Danielson, L. (2014). Identifying specific learning disabilities: Legislation, regulation, and court decisions. *Topics in Language Disorders, 34*(1), 8–24. doi:10.1097/TLD.0000000000000006

33 Fletcher, J. M., & Miciak, J. (2019). *The identification of specific learning disabilities: A summary of research on best practices.* Austin, TX: Texas Center for Learning Disabilities. Retrieved from https://ec.ncpublicschools.gov/disability-resources/specific-learning-disabilities/sld-policy-addendum-and-resources/SLDManual_Final.pdf

34 Thurlow, M. L., & Ysseldyke, J. E. (1979). Current assessment and decision-making practices in model LD programs. *Learning Disability Quarterly, 2*(4), 15–24. doi:10.2307/1510821; Ysseldyke, J., Algozzine, B., & Epps, S. (1983). A logical and empirical analysis of current practice in classifying students as handicapped. *Exceptional Children, 50*(2), 160–166. doi:10.1177/001440298305000207

35 Stuebing, K. K., Fletcher, J. M., Ledoux, J. M., Lyon, G. R., Shaywitz, S. E., & Shaywitz, B. A. (2002). Validity of IQ-discrepancy classifications of reading disabilities: A meta-analysis. *American Educational Research Journal, 39*(2), 469–518. doi:10.3102/00028312039002469

respond similarly to intervention.[36] Moreover, research suggests that IQ-achievement discrepancies have little influence on struggling readers' long-term reading skills, because the measures used within them do not lead to instructively useful information.[37]

Implementation

The discrepancy method is easy to implement on the surface, and as a result, some believe it is more consistent than other methods. Generally, qualified professionals administer IQ and achievement tests and then compare those scores against a fixed standard to determine whether a discrepancy exists. However, Maki and colleagues have repeatedly shown that the discrepancy method resulted in SLD identification that was less consistent than response-to-intervention approaches.[38,39,40]

In fact, underlying the implementation of any discrepancy approach is a host of well-described psychometric problems that affect the reliability of decisions that are made based on an IQ-achievement discrepancy. These may include but are not limited to test bias, or the idea that some tests may advantage or have differential validity for some populations, and the influence of small amounts of measurement error inherent in any test.[41]

Moreover, in the majority of states, the procedures used in carrying out the discrepancy method are based on a rigid, preset cut point for eligibility, which often leaves little to no opportunity for the use of professional judgment in determining which students may have SLD. Given the need for students to demonstrate a sizeable gap between their IQ and performance, this approach may disincentivize educators from providing high-quality, early interventions that could otherwise improve achievement. And because states set their own rigid criteria, eligibility determinations are inconsistent across states.

36 Stuebing, K. K., Barth, A. E., Molfese, P. J., Weiss, B., & Fletcher, J. M. (2009). IQ is not strongly related to response to reading instruction: A meta-analytic interpretation. *Exceptional Children, 76*(1), 31–51. doi:10.1177/001440290907600102

37 Ibid.

38 Maki, K. E., & Adams, S. R. (2019). A current landscape of specific learning disability identification: Training, practices, and implications. *Psychology in the Schools, 56*(1), 18–31. doi:10.1002/pits.22179

39 Maki, K. E., Burns, M. K., & Sullivan, A. L. (2018). School psychologists' confidence in learning disability identification decisions. *Learning Disability Quarterly, 41*(4), 243–256. doi:10.1177/0731948718769251

40 Maki, K. E., Burns, M. K., & Sullivan, A. L. (2017). Learning disability identification consistency: The impact of methodology and student evaluation data. *School Psychology Quarterly, 32*(2), 254–267. doi:10.1037/spq0000165

41 Fletcher, J., Foorman, M., Boudousquie, A., & Barnes, M. (2002). Assessment of reading and learning disabilities a research-based intervention-oriented approach. *Journal of School Psychology, 40*(1), 27–63. doi:10.1016/S0022-4405(01)00093-0

There are several challenges with the discrepancy method. They include:

The discrepancy method can result in a "wait to fail" approach. In many instances, the cut point for severe discrepancy requires children to fall significantly below grade level before they can meet the threshold for eligibility for special education in the SLD category and thus begin to receive specialized instruction. This means that schools might wait to provide appropriate interventions or support while the student continues to decline in academic performance. As a result, many students do not receive interventions early, at the very time that research has demonstrated the interventions would have the most impact for students. Research from NICHD and IES has shown that well-designed instructional programs or approaches result in significant improvements for the majority of students with early reading and math problems.[42]

The discrepancy method often uses arbitrary cut scores. The U.S. Department of Education allows states to issue their own regulations related to how their LEAs should implement the discrepancy model. In particular, many states set a minimum threshold for the discrepancy. Some states use a certain standard deviation difference that a child must demonstrate to be eligible, while others use a regression method that relies on standard errors of measurement.[43] For instance, the Hawaii Department of Education requires a student to demonstrate "a severe discrepancy between actual achievement and intellectual ability by a difference of at least 1.5 standard deviations."[44] The Wisconsin Department of Public Instruction requires 1.25 standard deviations.[45] The Louisiana Department of Education only requires at least one standard deviation.[46] As a result, the same child, using the same test scores, may qualify for special education due to an SLD in one state but in not another. Additionally, a review of LEA criteria in one state found 19 different discrepancy formulae,[47] which means that the same child with the same test scores may qualify for SLD in one district but not another, even within the same state.

42 National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.* Retrieved from https://www.nichd.nih.gov/sites/default/files/publications/pubs/nrp/Documents/report.pdf

43 Shepard, L. (1980). An evaluation of the regression discrepancy method for identifying children with learning disabilities. *The Journal of Special Education, 14*(1), 79–91. doi:10.1177/002246698001400108

44 Provision of a Free Appropriate Public Education for a Student with a Disability, Hawaii Administrative Rules § §8-60-38

45 Specific Learning Disability Criteria, Wisconsin Administrative Code § (2010) PI:11.36 (6)(c). Retrieved from https://dpi.wi.gov/sped/program/specific-learning-disabilities/criteria

46 Pupil Appraisal Handbook, Louisiana Administrative Code § (2017) 28:CI.1508. Retrieved from https://www.doa.la.gov/osr/LAC/28v.101/28v101.pdf

47 Haight, S. L., Patriarca, L. A., & Burns, M. K. (2001). A statewide analysis of the eligibility criteria and procedures for determining learning disabilities. *Learning Disabilities: A Multidisciplinary Journal, 11*(2), 39–46

In addition, there are many different IQ and achievement tests that can be used to satisfy the discrepancy method, and student performance may vary on different measures that assess the same thing.[48] Furthermore, it is not uncommon for test scores alone to misrepresent a child's true abilities and weaknesses. LEAs may require that qualified professionals administer the same, specific assessments or may allow them to select which assessments are best to evaluate each child. Thus, the presence or absence of a discrepancy may depend on the assessment protocol chosen for a given child.

As mentioned earlier, this discrepancy approach generally provides little room for professional judgment. One child may barely miss the eligibility cut score and be deemed ineligible for special education even when education professionals and the family members believe that an SLD determination is appropriate. Because of the inherent unreliability involved in determining a child's position relative to an arbitrary threshold, the same child could qualify if simply given different tests or retested several months later. Other children would move above the threshold. This is especially problematic when other available data demonstrate the need for special education services.

C. Alternative Research-Based Procedures

This section discusses two approaches that states permit as alternative research-based procedures, often described as types of procedures that illuminate "pattern of strengths and weaknesses (PSW)."

- *Functionality across cognitive domains:* A cognitive domains approach involves the administration of a series of cognitive assessments that are meant to evaluate a child's strengths and weaknesses across various cognitive domains that are related to areas of achievement. Common models of this type include the dual discrepancy/consistency criteria and the concordance/discordance method.[49] Proponents argue that children with SLD will demonstrate similar patterns of cognitive functionality and will help demonstrate the existence of an SLD.

- *Comparison of achievement across academic areas:* Some LEAs design a procedure to compare a child's academic scores across the areas of oral expression, listening comprehension, written expression, basic reading skills, reading fluency skills, reading comprehension, mathematics calculation, and mathematics problem solving. If a child performs at or above grade level in a certain number of areas and below grade level in a set number of others, they may be eligible for special education.

48 Phelps, R. P., (2009). *Correcting fallacies about educational and psychological testing.* Washington, DC: American Psychological Association.

49 Schultz, E. K., Simpson, C. G., Lynch, S., (2012). Specific Learning Disability Identification: What Constitutes a Pattern of Strengths and Weaknesses?. Learning Disabilities: *A Multidisciplinary Journal, 18*(2), 87–97.

Research: Data from cognitive assessment and PSW across cognitive domains

The research is mixed on the value of cognitive data to identify an SLD and help make educational decisions, which is at the core of models that identify patterns of strengths and weaknesses across cognitive domains. Some proponents believe that cognitive data can provide meaningful, necessary feedback in addition to instructional response data to make instructional decisions.[50] However, research has not supported that claim,[51] and even some supporters of including cognitive assessments in the evaluation process acknowledge that the evidence is limited and requires an inferential leap.[52]

Multiple researchers and clinicians have developed different methods or procedures to determine patterns across functionality in cognitive domains. Each method defines SLD slightly differently. As a result, it is logical that each method identifies a different subset of students as having a specific learning disability.[53] However, the existence of multiple models demonstrates that there is a lack of consensus in the field as to the definition of SLD using cognitive data, which results in considerable inconsistency of implementation. The variance of the models means that a child may be eligible for special education services if a school uses one model but would not be eligible if the school used a different model.

Research: Comparison of achievement across academic areas

There is no research on the validity of identifying the existence of an SLD using a comparison of achievement across academic areas.

Implementation

There is less information available about the implementation of either approach in this section, in part because there are multiple approaches and differences across models. However, there are some known implementation challenges.

50 Fuchs, D., Hale, J. B., & Kearns, D. M. (2011). On the importance of a cognitive processing perspective: An introduction. *Journal of Learning Disabilities, 44*(2), 99–104. doi:10.1177/0022219411400019

51 Burns, M. K., Petersen-Brown, S., Haegele, K., Rodriguez, M., Schmitt, B., Cooper, M., Clayton, K., Hutcheson, S., Conner, C., Hosp, J., & VanDerHeyden, A. M. (2016). Meta-analysis of academic interventions derived from neuropsychological data. *School Psychology Quarterly, 31*(1), 28–42. doi:10.1037/spq0000117

52 Schneider, W. J., & Kaufman, A. S. (2017). Let's not do away with comprehensive cognitive assessments just yet. *Archives of Clinical Neuropsychology, 31*(1), 8–20. doi:10.1093/arclin/acw104

53 Stuebing, K. K., Fletcher, J. M., Branum-Martin, L., & Francis, D. J. (2012). Evaluation of the technical adequacy of three methods for identifying specific learning disabilities based on cognitive discrepancies. *School Psychology Review, 41*(1), 3–22.

High cost of cognitive assessments. Cognitive assessments of any form are costly to administer. A 2018 study estimated that it would cost an LEA $1,960 to $2,400 per student to implement a PSW cognitive approach.[54] It is difficult to generalize cost estimates based on one study, but in this time when LEA budgets are limited and stretched thin, the cost of cognitive assessments will reduce the funding and resources available for instruction.

Methods involve arbitrary cut scores. The comparison of cognitive and achievement across academic areas can have rigid cut scores or requirements—i.e., a student needs to demonstrate at least two areas with two weaknesses and two areas of strength based on two assessments per area. Similar to the psychometric challenges for the IQ-achievement discrepancy method, there is no reliable research to justify setting a specific cut score, and enforcing strict numerical requirements may cause a child with a disability to miss the threshold for eligibility by a few points.

Twice-exceptional children

Unique challenges arise in the pursuit to effectively determine eligibility for special education under the SLD category for twice-exceptional learners.

The Joint Commission on Twice-Exceptional Students describes these individuals who have "the potential for high achievement in specific academics, general intellectual ability, creativity, leadership, and/or visual, spatial, or performing arts, and give evidence of one or more disabilities as defined by federal or state eligibility criteria. These disabilities may include specific learning disabilities (SpLD), speech and language disorders, emotional/behavioral disorders, physical disabilities, autism spectrum, or other impairments such as attention deficit hyperactivity disorder (ADHD)."[55]

The process to determine whether twice-exceptional students qualify for special education due to SLD can be difficult and controversial.[56] According to the Commission, "their exceptional ability may dominate, hiding their ability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed."[57]

54 William, J., & Miciak, J. (2018). Adoption costs associated with processing strengths and weaknesses methods for learning disabilities identification. *School Psychology Forum: Research and Practice, 12*(1), 17–29.

55 Danielian, J., & Nilles, K. (n.d.) Connecting for high potential: The exceptionality of being twice-exceptional. Retrieved from https://eric.ed.gov/?id=ED571566

56 Gelbar, N., & Renzulli, S. (n.d.) Growing up with gifts and talents: The enigma of twice exceptional. Poster presentation. Retrieved from http://www.cmcgc.com/media/handouts/311103/246930_Nicholas_Gelbar.pdf

57 Coleman, M. R., Twice Exceptional: Gifted Students with Disabilities Session III. Copy in print with author.

This can make it more difficult to determine if a twice-exceptional child should be eligible for special education under the SLD category and/or receive gifted supports.[58] Methods for identification that are based on IQ-achievement discrepancies often do not consider the correlation of the tests and regression to the mean, manifested as the tendency for lower-achieving children to obtain higher IQ than achievement scores, and for higher-achieving children to obtain lower achievement scores.

III. What We Can Learn From State Policies on SLD Eligibility

Each state creates its own regulations and policies that adhere to the federal requirements for the evaluation methods of SLD. While the reauthorization of IDEA in 2004 and the 2006 federal regulations encouraged states to move away from the IQ-ability vs. achievement discrepancy method, many states still allow it.

Based on a 2018 review of state regulations, NCLD found that:

- 8 states require the use of a data-based framework that incorporates instructional response—similar to RTI—as a means to determine eligibility for special education due to an SLD.
- 18 states still allow LEAs to select among the IQ-ability discrepancy method and at least one other method.
- 35 states allow or require include the term "pattern of strengths and weaknesses" (PSW), given the federal allowance for alternative research-based methods, in their regulation as one method for evaluation.[59]

If a state permits teams of education professionals to use multiple methods, districts can determine which methods they will allow. As a result, eligibility criteria vary significantly across, and even within, states. In other words, too often, inconsistent policies determine if children with SLD are eligible for special education services.

58 Assouline, S. G., Nicpon, M. F., & Whiteman, C. (2010). Cognitive and psychosocial characteristics of gifted students with written language disability. *Gifted Child Quarterly, 54*(2), 102–115. doi:10.1177/0016986209355974

59 NCLD analysis of state SLD eligibility regulations. Last updated February 2018. NCLD reviewed regulations that were available online and did not contact states to verify or identify additional guidance that may be available. States may have changed their publicly available regulations or policies since the analysis was completed in 2018. Additional information is on file with NCLD.

Spotlight on State Policies

The three states featured here each have different eligibility policies for SLD and demonstrate the variability of policies across the country.

Tennessee launched Response to Instruction and Intervention (RTI^2) in the 2014–2015 school year as a means to personalize learning, support struggling learners, and determine eligibility for special education due to an SLD. The Tennessee Department of Education (TNDOE) gradually transitioned to this new policy, implementing the initiative in elementary schools in the 2014–2015 school year, middle schools in the 2015–2016 school year, and high schools in the 2016–2017 school year. Throughout this period of transition, TNDOE provided guidance and training to support schools' transition.[60,61]

Tennessee does not permit the use of other methods.

South Dakota allows LEAs to use either RTI or the discrepancy method to determine eligibility for special education due to an SLD. In order to use RTI, LEAs must submit a comprehensive implementation plan, and the state must approve it. At the time of our review, South Dakota had yet to approve any LEA plan to use RTI. As a result, every LEA in the state continued to use the discrepancy model.[62]

Texas allows LEAs to use either RTI or a form of PSW assessment to determine eligibility for special education under the SLD category. The regulation on PSW states that a student should exhibit "a pattern of strengths and weaknesses in performance, achievement, or both relative to age, grade-level standards, or intellectual ability, as indicated by significant variance among specific areas of cognitive function, such as working memory and verbal comprehension, or between specific areas of cognitive function and academic achievement."[63]

60 Tennessee Department of Education. (2018). *Assessing progress: Four years of learnings from RTI2 implementation in Tennessee.* Retrieved from https://www.tn.gov/content/dam/tn/education/reports/rpt_rti_report_assessing_progress.pdf

61 Tennessee Department of Education. (2016). *RTI^2 implementation guide.* Retrieved from https://www.tn.gov/content/dam/tn/education/special-education/rti/rti2_implementation_guide.pdf

62 South Dakota Department of Education. (2007). *Determining eligibility for special education in South Dakota: A technical assistance document.* Retrieved from https://ncsec.k12.sd.us/Eligibility%2009-07.pdf

63 Adaptations for Special Populations, 19 Texas Administrative Code § 89 (AA) (2019)

IV. Conclusion

The reauthorization of IDEA and the IDEA Part B Regulations of 2006 allow states to use the severe discrepancy method, response to intervention, or another alternative research-based method in the evaluation to determine eligibility for special education for students suspected of having an SLD. All of the federally permissible approaches have challenges. Across all of them, eligibility determinations can be arbitrary due to ineffective implementation or rigid cut scores.

While the research demonstrating the lack of validity of IQ-discrepancy method and its implementation challenges mostly discredits its use, more research is needed to study the validity and effective implementation of other evaluation methods. Importantly, given the many challenges associated with each, there is currently no primary method or satisfactory way for determining eligibility for special education for students with an SLD.

Specifically, there is more work to be done to help the field select and implement an evidence-based approach that offers a comprehensive review of a student's profile, considers multiple data points, and uses professional judgment in determining eligibility. Additional resources must be invested and greater state support is needed to equip districts to effectively overcome the challenges presented here and effectively and consistently identify students with SLD who are eligible for special education.

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