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FRAMEWORK



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Using Progress Monitoring Data for Special Education Eligibility

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Using Progress Monitoring Data for Special Education Eligibility: An NeMTSS Research Brief

Key Points:

- Special education eligibility decisions can have a dramatic impact on the trajectory of a student's education and therefore the most reliable and valid methods for decision-making must be used.
- Research on the use of the severe discrepancy model has indicated decisions made using this model lack reliability and validity.
- With the additional provisions afforded under the 2004 amendments to *Individuals with Disabilities Education Act* (IDEA), the use of strengths and weaknesses models and Response to Intervention (RTI)/progress monitoring data have become popular frameworks for eligibility decision-making.
- The use of progress monitoring data within problem-solving frameworks such as MTSS and RTI has shown promise as a more reliable basis for eligibility decision-making, but additional improvements are needed.

Federal Policy and Legislation

For a student to be eligible for special education (SPED) services, they must meet criteria for at least one classification under the Individuals with Disabilities Education Act (IDEA) and demonstrate a need for an individualized education plan (Zirkel, 2017). With the 2004 amendments to IDEA and their subsequent regulations in 2006, the use of various decision-making models to inform identification of students who may need special education services, particularly those with specific learning disabilities (SLD), has been controversial (Zirkel, 2017).

Decision-Making Models

There are three decision-making models frequently used by schools to identify students who may need evaluation and eventual special education services: 1) the severe discrepancy (SD) model, 2) response-to-intervention (RTI), and 3) patterns of strengths and weaknesses (PSW), all of which have their share of weaknesses regarding their reliability and validity for identifying individuals with disabilities (Maki et al., 2018; Zirkel, 2017). See Table 1 for a comparison of these models.

Severe Discrepancy (SD) Model

Historically, the most common method for identifying students has been the SD model, however, the additional IDEA regulations put forth in 2006 allowed schools to use RTI data and alternative methods such as PSW for identification (Maki et al., 2018). The SD model relies on discrepancies between a student's scores on a measure of cognitive functioning (Intelligence Quotient [IQ] Tests) and their performance on measures of achievement (e.g., standardized tests or achievement tests). Critics of this model posit that students can exhibit the discrepancies thought to be specific to SLD without having the skill deficits observed in students

with SLD. In addition, the differences scores that are often used to make SPED verification decisions have often been deemed unreliable, sometimes leading to verifying students with SLD unnecessarily (Maki et al., 2018; Sullivan & Castro-Villareal, 2013). Other research on the use of this model in-practice has shown the resulting decision often lacked appropriate validity evidence (Maki et al., 2018; Sullivan & Castro-Villareal, 2013).

Patterns of Strengths and Weaknesses (PSW)

PSW models rely on predetermined cut-points and patterns of a student's strengths and weaknesses in performance and/or achievement relative to intellectual development, state-determined standards, or age (Maki et al., 2018; Sullivan & Castro-Villareal, 2013). These models also require the demonstration of a core cognitive deficit in alignment with achievement deficits. Proponents of the use of PSW models for SLD verification decisions assert that these approaches align with best practices for SLD verification evaluations due to the added component of including cognitive assessments in the decision-making process. However, current research on PSW data suggests that decisions based on these data did not result in valid or reliable decisions related to SLD verification. The identification decisions made across PSW models were inconsistent and students identified as having an SLD and those without had similar levels of achievement. Approaches to special education eligibility decisions aligned with PSW models also typically lack treatment validity (Maki et al., 2018).

Response-to-Intervention (RTI)

Most RTI models compare the student's current achievement level and growth rate to peer performance or research-based criteria, such as standardized norms (Maki et al., 2018). In a meta-analysis, Burns and colleagues (2005) found that the implementation of RTI led to improved student outcomes, such as improved reading skills, as well as reductions in the number of students who need special education services. While there is considerable evidence supporting the effectiveness of RTI models, criticisms of RTI include the variability in the operationalization of nonresponse to intervention, which may lead to over- or under-identification of those needing SPED services, a limited research base in intervention implementation and progress monitoring in areas other than reading, lack of understanding of effective secondary implementation, and lack of context between RTI data and the influence of the various systems with which students interact (Maki et al., 2018; Sullivan & Castro-Villareal, 2013). However, the bulk of the research indicates RTI models are the most reliable or valid systems for special education decision-making currently being utilized. Recommendations for addressing the criticisms of RTI and progress monitoring models can be found below.

Table 1. Special Education Eligibility Decision-Making Models

	Severe Discrepancy (SD) Model	Patterns of Strengths and Weaknesses (PSW)	Response-to-Intervention (RTI)
Description/ Data Used	<ul style="list-style-type: none">• Relies on IQ test scores (cognitive data) and achievement data (e.g., achievement tests, grades, and standardized testing scores)	<ul style="list-style-type: none">• Relies on pre-determined cut points and students' strengths and weakness patterns in achievement and/or performance.• Requires demonstration of core cognitive deficit aligning with achievement deficit.	<ul style="list-style-type: none">• Relies on student achievement data, growth rate, and standardized norms.
Decision-Making Criteria	<ul style="list-style-type: none">• Decisions made based on discrepancies between IQ scores and achievement scores.	<ul style="list-style-type: none">• Decisions made based on these patterns of intellectual/cognitive deficits, achievement deficits, and standardized norms.	<ul style="list-style-type: none">• Decisions made based on individual student achievement and growth rate compared to standardized norms.
Validity, Reliability, & Criticisms	<ul style="list-style-type: none">• Discrepancies indicative of certain special education verifications (e.g., SLD) can be observed in students who do not actually meet the verification criteria.• Difference scores used to determine discrepancies in this model are unreliable.• Research suggests lack of validity evidence in-practice.	<ul style="list-style-type: none">• Decisions using PSW data to identify students with an SLD verification found to be unreliable in research.• Identification decisions inconsistent.• Approaches aligned with these models lack treatment validity.	<ul style="list-style-type: none">• Lack of conformity and reliability of decision-making of special education eligibility• Lack of context between decision-making data and other variable related to student performance• Need for better secondary school implementation of RTI models and interventions.

Policy Interpretations

The U. S. Department of Education's Office of Special Education and Rehabilitation Services (OSERS) and Office of Special Education Programs (OSEP) has provided multiple policy interpretations that facilitate the understanding of compliance with legislation or regulations related to the provision of special education services and for eligibility decisions (Zirkel, 2017). For example, OSEP clarified that the use of RTI does not always require parental

consent. However, parental consent is required for the second or third tiers or if RTI data is being used for determining special education eligibility. Further, OSEP clarified that individual evaluations based on the parental disagreement of RTI data, or the process will not be publicly funded. Most importantly, the agency has warned that RTI cannot be used to deny or delay the evaluations of students or children suspected of having a disability. Further, OSEP has stated that if a parent has requested evaluation during the provision of RTI services, the school must respond with a timely evaluation for services or provide a written notice with the reason for refusal (Zirkel, 2017).

Laws and Court Decisions

State Law

Currently, 18 states require RTI data to determine special education eligibility for an SLD verification, however, some of these states also require additional data, such as PSW or cognitive processing data with RTI data (Hauerwas et al., 2013; Zirkel, 2017). Approximately ten states have prohibited the use of the SD model for SLD verification. Current trends in SLD verification lean toward increased use of RTI data for special education eligibility decisions, with over 30 states, including Nebraska, allowing the use of RTI data as part of the decision-making process (Hauerwas et al., 2013).

Court Cases

The current trend in court cases suggests that using the SD model for determining SLD verification is becoming less favorable than other methods, such as the use of RTI or the use of RTI data in conjunction with the SD model (Zirkel, 2017). In the 2010 *M.B. v. South Orange/Maplewood Board of Education* court case, it was ruled that a computerized calculation for determining an SLD verification based on the SD model violated the IDEA proscription that prohibited the use of a single measure or assessment as the sole criterion for an eligibility evaluation. A subsequent court case in 2014, *V.M. v. Sparta Township Board of Education*, concluded that the use of a statistical formula for determining SD is permissible though, it cannot serve as the sole determinant for eligibility. Additional court cases have reached similar conclusions when deciding upon the appropriateness of using the SD model for determining eligibility for an SLD verification (Zirkel, 2017).

Using Progress Monitoring Data for Special Education Eligibility Decisions

The growing popularity of multitiered models such as RTI and multitiered systems of support (MTSS) has yielded additional information that may be relevant for special education eligibility decisions through progress monitoring data collected in these frameworks (Maki & Adams, 2020). Multitiered models begin by universally screening students to identify those who need additional support through assessments such as curriculum-based measurements (CBMs; VanDerHeyden & Burns, 2018). Their performance on CBMs is then compared to predetermined cut scores and used to make predictions about whether a student is at-risk for academic difficulties.

Students who are determined to be at-risk receive interventions and supports. During this time, progress monitoring data is collected and used to come to one of four conclusions: 1) the intervention is effective; 2) the intervention is effective but unsuccessful in moving the student out of the at-risk range; 3) the intervention is effective with intense resources, meaning

that the student is making adequate progress but must continue to receive intervention with intense levels of resources; or 4) an effective intervention has not been identified (VanDerHeyden & Burns, 2018). In some cases, the fourth conclusion is used for identifying students with an SLD within the RTI framework. However, these decisions may not have strong validity, whereas the results of the second or third conclusions may provide data to suggest the correct intervention is selected. While the introduction of MTSS has resulted in improved student outcomes and additional data for eligibility decisions, improvements are necessary to increase the reliability and validity of decisions made using progress-monitoring data (Maki & Adams, 2020; VanDerHeyden & Burns, 2018).

Improving Special Education Eligibility Decision-Making

One of the most frequently cited criticisms of special education eligibility decisions is the inconsistency of these decisions (Maki & Adams, 2020; Parker et al., 2012; VanDerHeyden & Burns, 2018). These inconsistencies may be due to the lack of reliability and validity of cut points and standardized norms used for comparisons, variability in the application of decision-making rules of these models, and measurement error, which may lead to the over- or underrepresentation of students who need special education services being identified as such. There are many methods for addressing this inconsistency. One method is to utilize as much objective data as possible to understand the current achievement level by increasing the scope of the comprehensive evaluation for special education decisions. To do so, decision-makers should include achievement data from proximal skill measurements, year-end test scores, CBMs, and other progress monitoring data. The inclusion of multiple types of data provides the most comprehensive summary of the current level of performance and the impacts of contexts and systems the students may interact with, thus, reducing as much bias as possible during the decision-making process (Maki et al., 2018). Beyond the use of objective data, improved methods used to calculate performance level and measurement error are needed. Decision makers should strive to increase their understanding of relevant contexts influencing student performance and achievement as well as effective statistical models and measurement error.

Progress monitoring data within the problem-solving frameworks of RTI and MTSS may be among the most objective and practical sources of data for data-based decisions regarding special education eligibility (Parker et al., 2012; VanDerHeyden & Burns, 2018). Most of the current research examining the use of progress monitoring data has been based on classical test theory (CTT) and has primarily focused on the variables related to assessment procedures rather than variables related to reliability of decisions based on this progress monitoring data. Most practitioners currently evaluate student progress monitoring data in comparison to an aim line in a time-series graph. Three or more consecutive data points below this aim line suggest that the student is not making adequate progress. Research on this method has indicated that the three data-point aim line method has led to unreliable decisions and is greatly affected by measurement error, suggesting that this method is inadequate for making decisions regarding intervention effectiveness (VanDerHeyden & Burns, 2018).

Increasing the sources of data to determine progress, such as year-end tests in addition to CBMs, the calculation of measurement error, and intervention skill measurement provides a more valid and contextualized view of the performance level of the student and the effectiveness of the intervention (Parker et al., 2012; VanDerHeyden & Burns, 2018). Shifting toward the use of a linear regression model, such as a time series fixed linear regression (TSLR; Parker et al., 2016) or an ordinary least squares regression (VanDerHeyden & Burns, 2018) has also been suggested to provide a more accurate comparison between the data collected with intervention versus the slope needed for determining if the child is no longer at risk.

Implications for Practitioners

The shift toward problem-solving frameworks such as RTI and MTSS provides educators and relevant stakeholders with the data necessary to make evidence-based decisions on special education eligibility and the effectiveness of interventions delivered. The use of a linear regression model, additional progress monitoring data points, and the calculation of measurement error are useful for improving the reliability of such decisions.

To make objective, data-based decisions, educators should collect as much data as possible when making decisions about eligibility or progress made with intervention. These include, but are not limited to, CBMs, progress monitoring data within RTI or MTSS frameworks, relevant behavioral data, standardized testing scores, and year-end test scores. Then, based on this data, an eligibility decision must be made that is free from bias and includes relevant data from any individual who is part of the decision-making process.

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