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Ethical and Empirical Considerations in the Identification of Learning Disabilities

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The authors encourage those in the field of school psychology to consider the use of learning disabilities assessment practices in relation to specific American Psychological Association and National Association of School Psychologists ethical codes and in regard to the American Educational Research Association, American Psychological Association, and National Council on Measurement in Education test standards. The authors also ask the field to consider the evidence regarding the role of response-to-intervention data and cognitive processing assessment in learning disabilities identification as the field continues its move away from the discrepancy model. The absence of an efficient and accurate method of learning disabilities identification may disproportionately affect children of lower socioeconomic status and minorities who may not be able to access services outside of the public school system. The authors posit that consideration of the issues presented in this article should help raise questions and promote fruitful discussion among researchers and practitioners alike regarding ethical assessment practices in identifying learning disabilities. To the authors' knowledge, this is the first time that the field has been formally challenged to consider learning disabilities identification procedures in relation to ethical codes and test standards.

KEYWORDS ethical codes, response to intervention, learning disabilities assessment, IQ-achievement discrepancy, learning disabilities identification, ethical and empirical considerations in the identification of learning disabilities

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Many expert groups (e.g., The National Joint Committee on Learning Disabilities, The Consortium for Evidence-Based Early Intervention Practices, Learning Disabilities Roundtable, Council for Learning Disabilities, Learning Disabilities Association of America) and classification systems in the United States (e.g., *Diagnostic and Statistical Manual of Mental Disorders*, Individuals With Disabilities Education Act) and throughout the world (International Classification of Diseases) recognize that learning disabilities (LD) represent a valid, unique, and heterogeneous group of disorders. Although most researchers and practitioners do not dispute the construct of learning disabilities, there is a continuing debate in the field regarding which assessment approach is most appropriate for diagnosis and educational classification (e.g., Barnes & Harlacher, 2008; The Consortium for Evidence-Based Early Intervention Practices, 2010; Dombrowski, Ambrose & Clinton, 2007; Dombrowski et al., 2006; Gresham et al., 2004; Hale et al., 2010; Hale, Naglieri, Kaufman, & Kavale, 2004; Kavale, Kaufman, Naglieri, & Hale, 2005; Lembke, McMaster, & Stecker, 2010; Sugai & Horner, 2009; Vellutino, Scanlon, Small, & Fanuele, 2006). The IQ-Achievement discrepancy approach likely remains a commonly used LD classification approach because of its codification in state and federal codes. To date, only eight U.S. states expressly prohibit use of the IQ-Achievement discrepancy model. In the majority of states, the choice of LD identification criteria is left to the local education agency (Hauerwas, Brown, & Scott, 2013). Two additional methods are discussed in federal and state codes and presented as either standalone approaches or suggested for use in conjunction with some form of a comprehensive evaluation. This includes the use of response-to-intervention (RTI) data and the assessment of cognitive processing strengths and weaknesses.

In this article, we offer empirical and conceptual considerations for the field regarding the use of RTI data and cognitive processing strengths and weaknesses in the evaluation of LD. Because of the extensive body of research evidence criticizing the veracity of the discrepancy approach, we ask the field of school psychology to reflect upon the use of the discrepancy in relation to specific portions of the American Psychological Association (APA)'s and National Association of School Psychologists' (NASP) codes of ethics. These considerations are also applicable to the field of clinical child psychology, which is involved in LD identification. Overall, the points highlighted in this article should raise questions and promote fruitful discussion among researchers and practitioners alike regarding ethical assessment practices in identifying LD.

CONSIDERATION 1: DISCARD THE DISCREPANCY APPROACH

Numerous articles and studies over the past three decades have presented evidence against the IQ-Achievement discrepancy model as a method of

LD diagnosis and identification (Aaron, 1997; Dombrowski, Kamphaus, & Reynolds, 2004; Hale et al., 2010; Stanovich, 2005; Tucker, Stevens, & Ysseldyke, 1983; Watkins, Glutting, & Youngstrom, 2005). The empirical evidence against the tenability of the discrepancy model is substantial. Interested readers are referred to the aforementioned references for a more exhaustive review. These studies have empirically demonstrated that the discrepancy approach cannot accurately differentiate LD from non-LD; it is a wait-to-fail model that denies children access to needed intervention services for several years until the discrepancy manifests, permits children with low intelligence test scores to fall through the cracks, and is psychometrically and empirically indefensible (e.g., Aaron, 1997; Dombrowski et al., 2004; Fletcher, Francis, Morris, & Lyon, 2005; Machek & Nelson, 2010; Meyer, 2000; Peterson & Shinn, 2002). Because of the aforementioned considerations, we reaffirm the strong stance against the use of the IQ-achievement discrepancy in its myriad iterations. We understand that practitioners may cite state and federal code as justification for its continued use, but we suggest that practice and law may well lag behind science. Thus, we request the field to consider the forthcoming questions.

CONSIDERATION 2: WHEN IDENTIFYING LD WERE ETHICAL STRICTURES CONSIDERED?

We wish to bring the attention of the field—as well as those also responsible for the classification of LD (e.g., clinical child psychology)—to specific APA (2010) and NASP (2010) codes of ethics. First, the field is encouraged to consider whether the use of the LD identification procedure being used conflicts with the overarching precept undergirding both APA and NASP ethical codes. Both ethical codes require that psychologists avoid doing any harm (i.e., APA Principle A: Beneficence and Nonmaleficence; NASP Standard I Professional Competence and Responsibility). The APA's Principle A: Beneficence and Nonmaleficence indicates that "Psychologists strive to benefit those with whom they work and take care to do no harm" (APA, 2010, p. 3). The NASP Principles for Professional Ethics (2010, p. 6) Principle II, Professional Competence and Responsibility, requires that "beneficence, or responsible caring, means that the school psychologist acts to benefit others."

A convincing case can be made that the use of the discrepancy model can neither be considered beneficial nor a practice that falls within the notion of responsible caring. As an example, consider a fifth-grade child who has struggled academically since the first grade and has consistently scored a 70 on a measure of reading, with an IQ score of 80. Using a traditional discrepancy model, this child may be denied additional support

and may potentially fall through the cracks. In this case, one can understand how the use of the discrepancy in diagnostic decision-making may actually harm a child, specifically if that child is denied additional academic services for several years, or even altogether. This type of scenario, among other iterations, may conflict with APA's/NASP's ethical mandate to "do no harm."

Second, the ethical codes of both APA and NASP request that psychologists engage in practices that are empirically validated. The APA code of ethics indicates in 2.04, Bases for Scientific and Professional Judgments, that a "psychologist's work is based upon established scientific and professional knowledge of the discipline" (p. 5). The NASP code of ethics requires psychologists to ". . .use scientific knowledge from psychology and education to help clients. . ." (NASP 2010 Code of Ethics, p. 6). The NASP 2010 code of ethics in Standard II.3.2 speaks in more detail to this issue by directing psychologists to "use assessment techniques and practices that the profession considers to be responsible, research-based practice " (p. 7). Psychologists are encouraged to reflect upon the use of LD identification models in light of these ethical strictures to use empirically validated practices. Without such consideration, the casualties will be the children who do not meet illusory LD identification criteria yet cannot access services outside of general education.

Although use of a particular LD identification model might be legally permitted, the ethical codes of both major organizations request a greater standard of care when the law potentially conflicts with ethical obligations. The NASP (2010) Principles for Professional Ethics, for example, generally require "a more stringent standard of conduct than law, and in those situations in which both apply, school psychologists are expected to adhere to the Principles" (p. 2). The APA code of ethics has a similar ethical requirement for psychologists.

APA and NASP are not the only governing bodies that elaborate upon ethical matters. The Standards for Educational and Psychological Testing developed jointly by the American Educational Research Association (AERA), the APA, and the National Council on Measurement in Education (NCME) (1999) indicated the need for assessment models and instruments to have appropriate reliability and validity. Practitioners and researchers alike are required to determine the validity and reliability of any assessment method before its use (AERA, APA & NCME, 1999). Pertaining specifically to learning disabilities and responsible test use, Standards 4.19 and 4.20 recommend caution when interpretation involves using one or more cut scores and requires that empirical evidence of the cut score's validity be provided. Standard 13.7 recommends that multiple sources of information and data are considered when making placement decisions that portend to have a major impact on students. The implication is that the use of clinical judgment might be necessary when using an LD identification procedure that is evidenced to display less than acceptable validity and reliability. The above noted ethical requirement to consider the empirical evidence as well as consequential validity of

the intended LD identification procedure makes the forthcoming discussion important.

CONSIDERATION 3: HOW MIGHT RTI DATA BE INCORPORATED INTO LD DECISION MAKING?

Since the Individuals With Disabilities Education Improvement Act was amended in 2004, a high-profile topic in the special education and school psychology literature base has been the movement toward the use of RTI data for preventing and assisting in the determination of LD (Hoover, 2010; Zirkel, 2010). RTI evolved from a paradigm of service delivery in which data were used to demonstrate student progress in instructional interventions, rather than as a system for diagnosing disabilities (Ikeda, 2012). At present, there is debate as to the general purpose of the framework, with some viewing RTI as standards-driven general education reform and others defining it as early intervention that promotes more valid methods of disability identification (Fuchs, Fuchs, & Stecker, 2010). Despite these differing perspectives, experts agree that the progress monitoring data gathered through an RTI model are not sufficient for LD identification, which requires a comprehensive evaluation comprised of inclusionary and exclusionary components and determinant factors (The Consortium for Evidence-Based Early Intervention Practices, 2010). There continues to be questions about whether RTI is reasonable policy given the degree of unknowns about implementation (Fuchs & Deshler, 2007).

Regarding prevention, most of the RTI models examined and reported in the literature have focused on reading assessment and intervention at the elementary school level (Fuchs, Fuchs, & Compton, 2010; Riccomini & Witzel, 2010). The application of RTI to math instruction is in its infancy and school wide application to written expression is not currently documented in the literature. Newman-Gonchar, Clarke, and Gersten (2009) examined the limited studies conducted in the application of RTI models to math instruction. These authors were able to identify nine studies published in the United States between 1990 and 2007 and found that intervention positively impacted student performance. It is important to note that not all results were statistically significant across the studies (Newman-Gonchar et al., 2009). These preliminary findings suggest that, as in reading, early targeted intervention has the potential to increase student achievement in mathematics. Further investigations of RTI applications to mathematics are certainly warranted and should explore the efficacy of math interventions, forms of progress monitoring, and how to determine whether a student is responding to math intervention or requires a referral for a special education eligibility evaluation.

Regarding reading, the research examining RTI is also somewhat limited in its scope. At this time, the enduring effects of RTI have not been

documented. For example, it is unknown what percentage of students who respond to intervention early in their school careers go on to have reading difficulties in middle and high school. A young student may develop phonemic awareness and decoding skills and present as a fluent reader but then have difficulty with comprehension because early intervention did not focus on these skills, or on vocabulary instruction (Scarborough, 2005). In contrast, students who truly have a disability may appear responsive at Tier 2 or 3, but when intensive instruction is removed, they will again demonstrate the same problems that identified them as needing treatment in the first place (Fuchs & Fuchs, 2006). This raises a question about the very definition of response to intervention. Can we truly label a student as a responder if he or she cannot continue to perform adequately when supports are removed?

ARE THERE PROBLEMS WITH THE USE OF RTI FOR CLASSIFICATION?

Despite the reauthorization of federal code (i.e., Individuals With Disabilities Education Improvement Act) to allow school districts to use RTI in determining whether a student has an LD, there are questions regarding its implementation for such a purpose (Fuchs & Fuchs, 2006; Jimerson, Burns, & VanDerHeyden, 2007; Kavale, 2005; National Joint Committee on Learning Disabilities, 2005; Shinn, 2007; VanDerHeyden, Witt, & Gilbertson, 2007). RTI assumes that if a child fails to respond to instruction/intervention that is effective for the majority of the peer group, the problem lies within the child and not with contextual variables, such as poor instruction or low integrity of implementation (Benson & Newman, 2010). Benson and Newman (2010) noted, however, that there are several problems with this assumption. First, it is difficult to determine an appropriate peer group for comparison because implementation of interventions differs greatly across classrooms, schools, districts, and states. Responsiveness in any one instructional program may certainly be influenced by personal characteristics of the student and teacher and available resources, including time allocated to intervention. Second, there is lack of a clear definition of "unresponsiveness" (Benson & Newman, 2010).

Another question pertains to the function of RTI in the evaluation process. If RTI data serve as a screening approach in a team's decision to refer a child for special education evaluation, what additional data are needed in determining eligibility? In their position statement on RTI, the Council for Exceptional Children (2008) states that "data from responsiveness to instruction in tiers one and two shall not be a substitute for a comprehensive evaluation. RTI data does not provide sufficient data to rule out or identify a disability" (p. 74). This position was reiterated by The Consortium for Evidence-Based

Early Intervention Practices (2010), a group of researchers and practitioners in the fields of education, special education, and learning disabilities. The consortium contends that there is no such thing as a standalone RTI model of classification. Rather, RTI data should be but one component of a multidisciplinary evaluation, which may include a variety of assessment modes, with careful consideration given to exclusionary and inclusionary criteria (The Consortium for Evidence-Based Early Intervention Practices, 2010).

Given these current limitations, much more research needs to be conducted into the use of RTI data within the LD evaluation process. However, districts may want to consider the curriculum-based measures data collected through RTI in the prereferral stage. The data can certainly demonstrate growth, or lack thereof, in scientifically based intervention, if not unresponsiveness. A lack of substantial growth can lead an intervention team to determine a need for referral for special education eligibility evaluation. A caveat for school professionals is to take measures to ensure that interventions are grounded in the research, have a high rate of success with students encountering reading problems, and are delivered with integrity before making decisions.

CONSIDERATION 4: WHAT ROLE MIGHT THE ASSESSMENT OF IQ AND COGNITIVE PROCESSES PLAY IN LD IDENTIFICATION?

IQ testing may still be necessary to rule out intellectual disability (i.e., formerly mental retardation) and to ascertain a sense of a child's overall cognitive capacity. Overall cognitive ability is one of the strongest predictors of individual functioning in multiple domains including academic achievement and vocational success (Ceci & Williams, 1997; Kaufman & Litchenberger, 2006). There are shorter versions of IQ tests (e.g., the Reynolds Intellectual Assessment Scales; Reynolds & Kamphaus, 2003) that can furnish a reliable and valid assessment of psychometric *g* and perhaps these instruments should be considered.

The assessment of cognitive processing areas may also play a useful role in understanding possible etiology (e.g., Das, Naglieri, & Kirby, 1994; Evans, Floyd, McGrew, & Leforgee, 2002; Hale, Kaufman, Naglieri, & Kavale, 2006). Through the use of full-scale measures, cognitive processing assessment may help to determine etiology and inform whether or not treatment might be necessary by uncovering deficits in particular areas with known linkage to learning disabilities (e.g., memory, phonological processing; Nevo & Breznitz, 2011; Swanson & Siegel, 2001; Torgesen, 1999; Wagner & Torgesen, 1987, 2009).

We wonder, however, whether the requirement to document a disorder of processing that undergirds a learning disability is essential. Decades of

prior cognitive processing subtype research, primarily using individual subtests, have been unsuccessful in doing so (Glutting, Watkins, & Youngstrom, 2003; Watkins, 2000). Perhaps this lack of success is related to the practice of utilizing selected subtests across multiple test batteries, a practice that has been severely rebuked as less psychometrically defensible (Canivez, 2013; Dombrowski, 2013; Dombrowski & Watkins, 2013; Frazier & Youngstrom, 2007; Watkins, 2000).

Recent advancements in assessment technology via full-scale measures of particular cognitive processing areas (e.g., phonological processing, memory, executive function) may provide a more reliable and valid assessment. Results of these advancements have led to linkages of cognitive processing disorders with particular learning disability categories (Siegel, 1999; Stanovich & Siegel, 1994; Wagner & Torgesen, 1987). The assessment of cognitive processes such as memory, phonemic awareness, visual-spatial functioning, and executive function (among others) may help to potentially explain etiology and to determine more precisely where there is need for intervention. For example, research now shows that a core problem undergirding dyslexia involves phonological/phonemic awareness (Torgesen, 1999; Wagner & Torgesen, 1987, 2009). Research also shows that working memory has been associated with reading comprehension (Cain, Oakhill, & Bryant, 2004; Gathercole, Alloway, Willis, & Adams, 2006; Nevo & Breznitz, 2011; Swanson & Siegel, 2001). There are specific instruments that assess cognitive processes including memory and phonological awareness (e.g., Children's Memory Scale, Second Edition; Comprehensive Test of Phonological Processing, Second Edition; Cohen, 1997; Wagner, Torgesen, Rashotte, & Pearson, 2013). These are just two examples.

There may even be an intriguing complementary relationship between cognitive processing and RTI data. Academic assessment via a norm-referenced measure or via an indicator such as curriculum-based measurement (CBM) can suggest a problem with reading, but the use of full-scale cognitive processing measures may help to target specific deficits. For example, perhaps the reading deficit uncovered by CBM data or a norm-referenced assessment is due to memory and not phonological processing deficits, the typical rationale offered for reading deficits with CBM approaches. This sort of information may assist in the design and monitoring of specialized instruction. Still, the field needs additional research to determine whether the use of specific, full-scale measures of cognitive ability leads to effective interventions and therefore better outcomes for students.

The assessment of cognitive processing strengths and weaknesses has advanced over the past two decades and should no longer be summarily dismissed as a type of psychometrically indefensible subtest analysis. However, this assessment should be based on valid and reliable full-scale measures of particular cognitive processing areas. The scientific evidence is converging to support the important explanatory role that cognitive processing

assessment may play in a comprehensive evaluation (Johnson, Humphrey, Mellard, Woods, & Swanson, 2010). The empirical foundation for such practice appears to be strongest when that evaluation uses full-scale batteries. The practice of subtest analysis both within and between assessment instruments continues to be empirically scrutinized (Canivez, 2013; Dombrowski, 2013; Dombrowski & Watkins, 2013; Glutting et al., 2003; Watkins et al., 2005) especially in consideration of exploratory factor analysis (EFA) structural validity evidence suggesting that tests of cognitive abilities may be over factored (Frazier & Youngstrom, 2007) or may have a discordant structure from that posited in the test's technical manual (Bodin, Pardini, Burns, & Stevens, 2009; Canivez, 2008; Canivez & Watkins, 2010; DiStefano & Dombrowski, 2006; Dombrowski, 2013; Dombrowski & Watkins, 2013; Dombrowski, Watkins, & Brogan, 2009; Nelson & Canivez, 2012; Watkins et al., 2005). Even so, there is a countering body of confirmatory factor analysis (CFA) research (see Keith & Reynolds, 2010) that is used to establish the evidentiary basis for cross battery assessment (Flanagan, Ortiz, & Alfonso, 2007), but this research literature has also been sharply criticized (Canivez & Kush, 2013; Devena, Gay, & Watkins, 2013; Dombrowski, 2013; Dombrowski & Watkins, 2013). The empirical evidence will need to be weighed by the field. The research seems to converge to support the viability of cognitive processing assessment when full- scale measures of the particular cognitive processing area are used. The research regarding the assessment of cognitive processes using specific subtests both within and between cognitive ability instruments has been sharply criticized and requires further investigation.

IMPLICATIONS FOR PRACTICE AND CONCLUSION

We encourage the field to reflect upon the use of LD identification procedures in relation to specific APA and NASP ethical codes and in regard to AERA, APA & NCME Test Standards (1999). We also ask the field to consider the evidence regarding RTI and cognitive processing assessment as the field continues its move away from the discrepancy model. RTI may be best used as a prereferral prevention/intervention approach, although the resultant data can be used to substantiate the existence of reading difficulties as part of a comprehensive evaluation. As to this point, the evidence suggests that RTI should not be used to inform math and writing learning disability identification since the technology is either unavailable or less developed. We also suggest that cognitive processing assessment results may have an important explanatory role particularly when full-scale measures have been used, but this relationship with intervention and student outcomes requires additional empirical scrutiny. The use of individual subtests within and scattered across various instruments appears to be psychometrically less defensible. Additional research in this area is necessary because the

evidence from EFA structural validity studies diverges from those using CFA methodology. As Gorsuch (1983) noted, confidence in a factor structure may be engendered when there is greater convergence evidence among multiple methods of factor analysis. Thus far, EFA and CFA results have generally lacked such convergent validity leaving questions about the appropriateness of interpreting subtests and lower order cognitive processing factors.

There are comprehensive models of learning disabilities identification that have been discussed in the literature and that would permit a rapprochement among competing positions. Dombrowski and colleagues (2004) presented an intriguing dual-deficit model of learning disabilities classification that considers the use of CBM/curriculum-based assessment data. These authors contended that this approach can be universally adopted across states and classification systems (i.e., Individuals With Disabilities Education Act and *Diagnostic and Statistical Manner of Mental Disorders*), will identify children who might otherwise fall through the cracks, and will also capture the gifted youngster with LD. Dombrowski and colleagues' (2004) model appears to be very similar to the process for LD identification that was adopted by the *Diagnostic and Statistical Manner of Mental Disorders* (5th ed.). Marston, Muyskens, Lau, and Canter (2003) used a problem-solving model incorporating a comprehensive evaluation following continuous progress monitoring. The results of this approach were successful in reducing the number of minority students enrolled in special education. These are but two examples of promising models highly cited in the literature and that may be of interest to the field.

The requirement for an efficient and accurate LD diagnostic approach becomes even more imperative in light of the amended Americans with Disabilities Act (2010), which may have significant implications for the identification and documentation of LD in higher education. There portends to be less emphasis on costly evaluations and increased emphasis on a well-established and well-documented history of LD, making accurate and efficient LD identification in the grade-school years critical. We hope that the considerations presented in this article spur further discussion and generate additional research interest. In particular, the field is encouraged to more fully cast its gaze upon various ethical codes and standards in relation to LD identification.

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