IDENTIFICATION OF GIFTED STUDENTS WITH LEARNING DISABILITIES IN A RESPONSE-TO-INTERVENTION ERA

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The identification of children who are twice-exceptional—those who are gifted and have concomitant learning disabilities (LDs)—has historically posed a number of challenges for school psychologists and other school personnel. With the reauthorization of the Individuals With Disabilities Education Act and the shift to the use of a Response-to-Intervention (RtI) model to identify students with LDs, the task of identifying those who are twice exceptional is even more daunting. This article proposes an integrated model for the identification of gifted children with LDs that blends standardized assessment methods with practices consistent with RtI. This balanced approach brings together the best of both worlds to more accurately identify twice-exceptional students and better meet their educational needs. © 2010 Wiley Periodicals, Inc.

Defining giftedness, with or without disabilities, is a complex and often controversial task (Davis & Rimm, 2004). Although many definitions of giftedness exist (e.g., Clark, 1997; Piirto, 1999; Renzulli, 1978; Tannenbaum, 1997), there is no one universally accepted definition (Davis & Rimm, 1998, 2004). As a result, giftedness means different things to different people (Tannenbaum & Baldwin, 1983) and can be influenced by one’s cultural perspective (Busse, Dahme, Wagner, & Wieczerkowski, 1986). Many states look to the federal definition of giftedness as a way to guide their policy development (Stephens & Karnes, 2000).

The federal definition of gifted and talented has undergone several changes since the original classification appeared in The Education Amendments of 1969 (Public Law [PL] 91-230, 1970). State departments of education use their interpretation of these definitions to develop school district policies for identification and eligibility criteria (Davis & Rimm, 2004; Stephens & Karnes, 2000). In a recent analysis of states’ definitions of gifted and talented learners, Stephens and Karnes (2000) found most states use some modified form of the following 1978 federal definition:

The term “gifted and talented children” means children, and whenever applicable, youth, who are identified at the preschool, elementary, or secondary level as possessing demonstrated or potential abilities that give evidence of high performance capability in areas such as intellectual, creative, specific academic or leadership ability or in the performing and visual arts and who by reason thereof require services or activities not ordinarily provided by the school. (Purcell, 1978; PL 95-561, 1978).

In practice, schools have traditionally defined giftedness in terms of intellectual ability. This has been the consensus approach since Terman’s initial study of giftedness in the 1920s (Winner, 2000) and, consequently, IQ tests have been the most widely used tool for its assessment (Callahan, 2000). As noted, however, no universally agreed upon definition of intellectual giftedness exists (Davis & Rimm, 2004), and the determination of eligibility for gifted programs falls to the states and sometimes to the individual school district. Although problematic for a number of reasons, states generally require a minimum IQ score—typically between 130 and 140—for gifted identification (Lovett & Lewandowski, 2006). Some states and districts consider exceptional performance on academic tasks or other criteria in addition to IQ in the determination of giftedness (McCoach, Kehle, Bray, & Siegle, 2001). The use of multiple criteria for gifted identification has been endorsed.
for decades by leading scholars in the field (e.g., Brody & Mills, 1997; Ford & Grantham, 2003; Nielsen, 2002; Renzulli, 2003; Silverman, 2003). For example, Renzulli’s (1978, 1986, 2005) well-known three-ring conception of giftedness includes three interacting clusters of traits: above average ability, high levels of task commitment, and high levels of creativity. Renzulli (1990, 2005) advocates for the use of both test scores and nontest criteria, including teacher nominations, in the identification of gifted students.

**Twice-Exceptional Learners**

Increasing attention has been given to identifying characteristics of gifted students with learning disabilities (LDs; Beckley, 1998; Nielsen, 2002). This population has been defined as “those who possess an outstanding gift or talent and are capable of high performance, but also have an LD that makes some aspect of academic achievement difficult” (Brody & Mills, 1997, p. 282). In other words, twice-exceptional children are those who are both gifted and have an LD—children of superior intellectual ability who exhibit a significant discrepancy in their level of academic performance based on what would be expected based on their general intellectual ability (McCoach et al., 2001). These children tend to demonstrate higher academic potential than their average-ability peers and thus are less likely to be referred for special education eligibility testing (Brody & Mills, 1997). At the same time, the child’s disability may mask the giftedness (Baum, 1990). This masking can make the twice-exceptional student appear to have average abilities and achievement. Because of these issues, gifted students with LDs are less likely to be identified for either exceptionality (McCoach et al., 2001; Ruban & Reis, 2005).

**LDs and RtI**

LDs were first identified as a category of special education by the federal government in 1977. The definition of LD has generally been consistent over time and legislation and includes reference to a disorder in one or more of the basic psychological processes (Volker, Lopata, & Cook-Cottone, 2006) and low achievement in one or more academic areas. Since the inclusion of LD as a disability in federal law, the use of a discrepancy between a child’s IQ and achievement scores has been the predominant method for identifying this type of disability, although the actual discrepancy model used varies widely by state. The consequences of this variation, as well as with the use of such models, have raised issues of equity, accuracy, timeliness, outcomes, feasibility, and consistency. For example, much concern has been expressed regarding the overidentification of students with LDs. Kavale, Holdnack, and Mostert (2005) noted an increase of approximately 150% in the LD population. Another problem is the significant variability in the number of children identified with LD from setting to setting. Prevalence rates have been found to range from 2% to 7% across states (Coutinho, 1995). Other concerns include the disproportional representation of English language learners identified as having LDs (Artiles & Trent, 2000), the lack of focus on the student’s needs rather than test scores, and the length of time it takes for a discrepancy to become large enough to observe (Vaughn, Linan-Thompson, & Hickman, 2003). Due to these difficulties, many have referred to a discrepancy model as a “wait to fail” paradigm.

With the 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA), school districts were given more flexibility in their use of evaluation procedures for determining whether a student has an LD. This revision allows districts an opportunity to address concerns with the aptitude–achievement discrepancy model and develop more appropriate identification practices for students who are suspected of having an LD. One of the most frequently suggested alternatives to the use of an IQ–achievement discrepancy paradigm is the implementation of a Response-to-Intervention (RtI) model. First conceptualized by Heller, Holtzman, and Messick (1982), the term “Response to Intervention” is used to describe a systematic problem-solving process within a coordinated system
of early intervention services designed to facilitate early recognition of students’ difficulties and to provide for a data-based method for evaluating the effectiveness of the instructional approaches used. The focus in this process is on the instructional methodologies used rather than on identifying individual student differences. This approach relies on the use of scientific, research-based, instructional practices and frequent assessments or probes to provide the data necessary to make decisions about student progress and the need for more intensive intervention (Fuchs, Mock, Morgan, & Young, 2003). This multitier system of intervention is recommended as a way to use educational problem solving across all levels of planning, implementation, and evaluation that is consistent with federal legislation and scientific research (Batsche et al., 2005). RtI models in combination with other Individuals with Disabilities Education Improvement Act (IDEIA) criteria and safeguards (e.g., multidisciplinary team decisions) can provide more immediate help to struggling students and, when implemented in culturally and linguistically responsive ways, reduce inappropriate identification of disabilities.

**RtI and Twice-Exceptional Learners**

Despite an abundance of literature on the use of RtI as a model for serving and identifying students with LDs (e.g., Berninger, 2006; Kavale & Spaulding, 2008; Marston, 2005), to date little has been written about the potential promise and possible problems with using RtI to identify and address the needs of gifted students with LDs. In fact, with the exception of a recent special issue of *Gifted Child Today* (Hughes & Coleman, 2009), using RtI with gifted learners has not been discussed in the literature (Bianco, in press).

A recent position paper on RtI, issued by the Council for Exceptional Children (CEC; 2007) specifically addressed the needs of gifted children with disabilities and, by doing so, invited gifted education professionals to be part of the RtI dialogue. The recognition that the educational needs of gifted learners with disabilities must be addressed by “access to a challenging and accelerated curriculum, while also addressing the unique needs of their disability” (CEC, 2007, p. 2) encourages researchers and advocates to explore how RtI can be conceptualized not only to meet the needs of gifted students with disabilities, but to meet those of all potentially gifted learners. In fact, The Association for the Gifted, a division of CEC (CEC-TAG), reiterated this in their recent position statement by recognizing the potential of an RTI framework for gifted learners.

... the Response to Intervention model be expanded in its implementation to include the needs of gifted children. The use of the RTI framework for gifted students would support advanced learning needs of children in terms of a faster paced, more complex, greater depth and/or breadth with respect to their curriculum and instruction (CEC-TAG, 2009, p. 1).

Despite this endorsement of the use of an RtI model with gifted learners, in its present form, RtI may not be especially useful for identifying gifted students at Tiers 1 and 2 (Volker et al., 2006), including those with concomitant learning disorders. One distinguishing, and often complex, characteristic of gifted students with LDs is how each exceptionality intersects the other. These children tend to demonstrate higher academic potential than their average-ability peers and thus are less likely to be referred for special education eligibility testing (Brody & Mills, 1997). At the same time, the child’s disability may mask the giftedness (Baum, 1990). Because a student’s superior intellectual abilities may mask his or her LDs, and vice versa, many twice-exceptional students appear to have average abilities and achievement (McCoach et al., 2001; McCoach, Kehle, Bray, & Siegle, 2004), making them less likely to be identified with either exceptionality. It is precisely this “masking” of ability and disability that warrants concern as we examine RtI as an identification protocol for twice-exceptional students.
The cornerstone of an effective RtI model is the ability to identify students who are struggling early so that intervening strategies can be implemented and measured and student responsiveness can be assessed through ongoing progress monitoring. In most RtI models, Tier I benchmark data are collected throughout the school year by using curriculum-based measures. School personnel evaluate these classroom data to identify those students who, for example, may be failing to meet grade-level benchmark expectations. Herein lies the challenge for identifying gifted students with LDs: RtI without a measure of psychological or cognitive functioning at one of the tiers will likely fail to identify gifted students with LDs (Ofiesh, 2006). Yet, some states (e.g., Colorado) have mandated the use of RtI exclusively in the identification of LDs, with no mention of any assessment of cognitive processes in the eligibility criteria [Colorado Exceptional Children’s Education Act s.08(6)(B)(II); 300.309 (2009)]. These regulations, in which the final RtI tier includes only a problem-solving approach and no assessment of cognitive ability or psychological processing, ignore the federal definition of LDs (Ofiesh, 2006) and do not address the multifaceted nature of LDs (Scruggs & Mastropieri, 2003). In addition, RtI models lack verifiable technical adequacy and identifiable methods that will reduce overidentification of LDs (Scruggs and Mastropieri).

Considering these limitations, it is not surprising that many recommendations for identifying students with LDs advocate for a balanced, integrated approach to identifying LDs that uses both RtI and a comprehensive evaluation of the basic psychological processes (e.g., Hale, Kaufman, Naglieri, & Kavale, 2006; Ofiesh, 2006; Volker et al., 2006). Moreover, the use of standardized assessment tools of cognitive ability and/or cognitive processes has been recommended for identification of the twice-exceptional learner (Brody & Mills, 1997; McCoach et al., 2001; Nielsen, 2002; Silverman, 2003; Volker et al., 2006). To accurately identify and meet the needs of gifted/LD children, an integrative approach that draws on the strengths of both RtI and standardized assessment practices also makes conceptual sense for these students (Volker et al., 2006). Without such a balanced and comprehensive approach to identification, the needs of many gifted students with LDs will continue to go unrecognized and unserved.

The model we propose takes into consideration the statutory definitions of LD and the potential contributions that cognitive processing evaluation data can provide in understanding and helping the twice-exceptional learner. This model also honors the promise of RtI to aid in a well-integrated and seamless system of instruction and intervention that is guided by student performance data (Ehren, Montgomery, Rudebusch, & Whitmire, 2007). Furthermore, the proposed model will result in the collection of multiple types of assessment data that will increase diagnostic accuracy and help direct intervention efforts (Hale & Fiorello, 2004; Mather & Gregg, 2006) of gifted learners who have concomitant LDs. Thus, this model is the blending of both approaches.

**AN INTEGRATED MODEL FOR IDENTIFYING GIFTED STUDENTS WITH LDs**

As with other three-tier models, intervention and identification begin at Tier 1. Tier 1 is the instruction and assessment that occur in the general education classroom. This first tier should provide students with multiple opportunities to explore, develop, and demonstrate all interests, strengths, and talents so that their potential can emerge (Gentry, 2009). Instruction, curriculum, and services that match learners’ abilities, interests, and skills are provided in the general education setting (Brown & Abernethy, 2009). Central to Tier 1 is the practice of universal screening (National Association of State Directors of Special Education [NASDSE], 2005), which generally is based on grade-level core curriculum in the form of curriculum-based measurement (CBM). To increase the utility of an RtI framework in the identification of gifted students, above-grade-level screening instruments should also be incorporated into screening practices (Brown & Abernethy, 2009). Data from these tools can help teachers identify those students who may need intensive, strengths-based interventions. By using multiple-grade-level screening tools, the needs of all students, including those
who are twice exceptional will more likely be identified. Teachers and other school professionals need to pay particular attention to how students display their areas of strengths and challenges in the general education classroom. As previously mentioned, twice-exceptional students frequently perform on grade level, which poses unique challenges for identifying either exceptionality. When school professionals dig deeper, however, they may find a student who has creative ideas for his or her writing project but cannot write in complete sentences or a student who learns complex mathematical concepts quickly but struggles with simple computation problems.

Data obtained at Tier 1 can be used to guide interventions at Tier 2. For example, gifted students can receive differentiated instruction and enrichment opportunities within the core curriculum (at or above grade level) in greater depth or at an accelerated pace in those areas in which they excel (Coleman & Hughes, 2009). The Hale and colleagues (2006) model for LDs includes an individualized problem-solving approach at Tier 2. Similarly, for students who are twice exceptional, greater collaboration with other school specialists, such as the special education teacher, reading specialist, and the school psychologist is necessary to plan and develop a dually differentiated curriculum to address the full range of students’ abilities and learning challenges. According to Baum, Cooper, and Neu (2001), dual differentiation meets the needs of these students by nurturing their strengths and compensating for their learning deficits. To do this, both the student’s talents and limitations must be identified and addressed.

At Tier 2, in addition to CBM, targeted assessment that helps to elucidate the child’s processing difficulties as well as strengths should be conducted. The paradoxical needs of these students identified in the literature (see Baum et al., 2001, for a review) can serve as a guide to assessment at this tier. Tools that can be used at Tier 2 should include classroom observations of behavior and performance (Ofiesh, 2006; Silverman, 2003); rating scales of creative activity (Nielsen, 2002); focused measures of achievement that provide data above and beyond CBM (e.g., Test of Written Language 4 [TOWL-4]; Hammill & Larsen, 2009) that better identify both academic precocity and deficits; and measures of neuropsychological/executive functions, such as attention and working memory (Semrud-Clikeman, 2005). Measures for this purpose may include the Behavior Ratings Inventory of Executive Function (BRIEF; Gioia, Isquith, Guy, & Kenworthy, 2000); subtests from the Das–Naglieri Cognitive Assessment System (DN:CAS; Das & Naglieri, 1997); or subtests from the Woodcock–Johnson III Tests of Cognitive Abilities (WJ-III; Woodcock, McGrew, Mather, & Schrank, 2001). With these data, interventions at this tier can take into consideration the child’s basic processing issues that might adversely impact their academic performance. Thus, systematic interventions designed to address the child’s academic weaknesses would be implemented while concurrent enrichment and/or acceleration opportunities in areas of propensity and strength are also provided.

An additional assessment strategy that should be implemented at Tier 2 is the screening for any pattern of declining achievement via a record review. Achievement test scores of students who are twice exceptional may decline over time as their LDs increasingly impact achievement and performance (McCoach et al., 2001, 2004). For example, Reis, Neu, and McGuire (1997) note that, as assignments become more reading intensive, gifted children with reading disabilities may experience increasing academic difficulty as they progress from the primary to intermediate and secondary grade levels. Examining past grades, test scores, and patterns of academic performance longitudinally may aid in identification of twice-exceptional students, particularly within the context of additional targeted assessment data.

The third and final RtI tier is reserved for those students whose needs are not met at Tier 2: those who do not adequately respond to the interventions provided. It is at Tier 3 that students who have LDs, including those who are twice exceptional, should receive a comprehensive, multidisciplinary, psychoeducational evaluation (Hale et al., 2006; Volker et al., 2006), including standardized
assessment of the basic psychological processes (Hale et al., 2006; Volker et al., 2006). The evaluation should include a measure of cognitive ability, a full achievement battery, an interview, and observational data (McCoach et al., 2001, 2004; Volker et al., 2006) and use multiple criteria, multiple sources, and multiple methods for assessing both giftedness and learning deficits (Volker et al., 2006). Such a comprehensive evaluation will be sensitive to the specific pattern of these students’ intellectual and academic strengths and weaknesses (McCoach et al., 2001, 2004; Volker et al., 2006) and will help differentiate varying learning needs (Semrud-Clikeman, 2005) across the continuum of abilities. During this evaluation, issues related to impact of the interaction of giftedness and LDs on assessment results should be considered; for example, the potential of masking (Ofiesh, 2006) and varying patterns of scores and subtest scatter (see Volker et al., 2006, for a review).

The data accrued from a multidisciplinary comprehensive evaluation can be used to develop an intervention plan that includes individualized strategies and services that are linked to the child’s level of achievement to ensure academic growth (Brown & Abernethy, 2009) and ameliorate academic difficulties. Thus, both an Advanced Learning Plan and an Individualized Education Program (IEP) could result. A dually differentiated curriculum that includes opportunities for authentic problem solving and creative means of communicating ideas (Baum et al., 2001) has the potential of effectively meeting these students’ complex educational needs. In addition to providing the twice-exceptional learner with special education and/or intensive, individualized services designed to address deficits, Tier 3 interventions designed for the advanced learner should also be planned and implemented. These interventions might include such things as intensive acceleration such as grade skipping, early Advanced Placement (AP) classes, or early college entrance (Hughes & Rollins, 2009). Of course, ongoing progress monitoring would be required to determine if the child is responding to all of the interventions provided. These assessment tools should be connected directly to the interventions (Volker et al., 2006) to provide valid data for decision making. Modifications of various aspects of the dually differentiated curriculum would then be made as appropriate.

CONCLUSION

RtI practices such as early intervention, effective instruction and curriculum, collaborative problem solving, and ongoing, regular progress monitoring promise to help school personnel better meet the needs of children with learning difficulties (Hale et al., 2006). Using a strengths-based model of RtI can also result in effective services for children who are gifted, as well as those who are twice exceptional. As noted by Baum and colleagues (2001), the key to meeting the needs of the twice-exceptional learner is to create the appropriate balance between attention to the child’s strengths and compensating for deficits while providing authentic, challenging curricula. The integration of targeted assessment and a comprehensive evaluation into a three-tiered model of RtI is the best way to identify the diverse, contradictory learning needs of the twice-exceptional learner. This blending of standardized assessment procedures with RtI practices has the potential of benefitting these students in ways that these approaches can not when used in isolation.

REFERENCES


Psychology in the Schools DOI: 10.1002/pits


Colorado Exceptional Children’s Education Act s.08(6)(B)(II); 300.309 (2009).


Psychology in the Schools DOI: 10.1002/pits