

TWICE-EXCEPTIONAL STUDENTS: Gifted Students with Disabilities Impacting Learning

INTRODUCTION

Students who simultaneously show evidence of high performance or potential in a domain of talent and also have a disability that impacts their ability to achieve and learn are often referred to as “twice-exceptional.” The past decade has witnessed increased research as well as clinical and educational attention directed towards understanding the nature and needs of twice-exceptional students (Foley-Nicpon, Allmon, Sieck, & Stinson, 2011). This mounting focus has had several impacts, including numerous attempts to establish a widely accepted operational definition for the term, improve mechanisms for identification, and establish evidence-based practices and instructional strategies to support academic, social, and emotional outcomes for twice-exceptional learners (Reis, Baum, & Burke, 2014; Ronksley-Pavia, 2015). Despite increased attention, however, problems associated with definitional ambiguities, recognizing the psychosocial correlates of students in this population, and meeting their needs in the educational context persist (Foley-Nicpon, 2015; Kalbfleisch, 2014).

The purposes of this chapter are to broadly describe challenges in both defining the term twice-exceptional and identifying such students for gifted programs and services. This chapter also addresses some of the psychosocial and behavioral correlates observed in many twice-exceptional students. Finally, specific academic interventions, strategies, and instructional approaches that have evidence of efficacy in promoting the participation and success of this population in advanced-level classes and high-ability environments will be discussed.

BACKGROUND

During the past four decades, researchers in the field of gifted education have increasingly recognized the existence of students who have two co-existing exceptionalities: giftedness and disability (Maker, 1977; McCoach, Kehle, Bray, & Siegle, 2001; Ronksley-Pavia, 2015). Until recently, many educators, parents, and researchers believed twice-exceptionality was “paradoxical” in that it seemed implausible that gifted learners could concomitantly have a learning disability (Brody & Mills, 1997; Kalbfleisch, 2014; Ronksley-Pavia, 2015). Despite early skepticism that academic gifts and learning disabilities often coexisted in the same child, the presence of twice-exceptional students in our nation’s school is currently widely accepted by many educational researchers (Foley-Nicpon et al., 2011; Reis et al., 2014) and in federal education legislation (*Individuals With Disabilities Educational Improvement Act* (IDEA), 2004). While the prevalence of twice-exceptional students is unknown, it is estimated that approximately 400,000 twice-exceptional students are in our nation’s public schools (Foley-Nicpon & Cederberg, 2015).

Notwithstanding this emerging acceptance, the term “twice-exceptional” continues to elude a comprehensive definition that is accepted within and beyond the fields of gifted and special education. Problems that arise from the absence of a shared definition include the difficulties in generalizing findings across studies as well as in obtaining funding and educational services designed to develop talent for twice-exceptional students (Reis et al., 2014; Foley-Nicpon, 2015).

The lack of definitional consensus derives from a number of factors. For example, some researchers and theorists (Barber & Mueller, 2011; Reis et al., 2014) define twice-

exceptional students as those who simultaneously meet identification criteria for both giftedness and a learning disability that has led to the development of an Individualized Education Program (IEP) under the IDEA of 2004, or who are served through 504 Plans under the Rehabilitation Act of 1973. However, not only does little consensus exist on criteria for defining the term giftedness, but disability definitions are also often debated. Together, these debates confound attempts to define a phenomenon characterized by a pair of ambiguous and non-overlapping constructs (Ronsley-Pavia, 2015).

Even when definitions of giftedness and disability exist, many twice-exceptional students will not meet eligibility criteria for both due to the phenomenon of masking. Masking, which is described more fully below, generally reflects a phenomenon in which gifts blur the presentation of disabilities and vice versa (Baldwin, Baum, Pereles, & Hughes, 2015; Foley-Nicpon et al., 2011). Finally, some theorists specifically apply their articulated operational definitions to particular disabilities including specific learning disabilities (SLD), attention deficit/hyperactivity disorder (ADHD), and autism spectrum disorder (ASD) as these disabilities have received the most attention in the twice-exceptional empiric literature (Foley-Nicpon et al., 2011; Kalbfleisch, 2013). In contrast, studies investigating gifted youth with sensory disorders, behavioral disorders, and emotional disorders of depression, anxiety and/or mood are sparse (Foley-Nicpon, 2015; Missett, Azano, Callahan, & Landrum, 2016). Consequently, gifted students with emotional and behavioral disabilities, impairments in hearing and vision, and physical disabilities are generally overlooked or omitted in efforts to operationalize the term twice-exceptional. This omission suggests the need both for added inclusion of students with diverse disabilities and greater flexibility in defining, studying, identifying, and

developing services and interventions for students with more varied gifts and disabilities (Missett et al., 2016; Ronksley-Pavia, 2015).

Endorsing a definition of twice-exceptionality that resolves these conceptual challenges is beyond the scope of this chapter, and it appears likely that more specific definitions will emerge with further empirical studies (Kalbfleisch, 2014). Nevertheless, while acknowledging the complex nuances in defining the term, for purposes of this chapter a student is broadly defined as twice-exceptional when he or she simultaneously has high ability in one or more domains and a learning, emotional, physical, sensory, and/or developmental disability – whether or not the student’s disability is recognized and subject to educational interventions under the IDEA.

IDENTIFICATION

Although many educators recognize that twice-exceptional students exist in our nation’s classrooms, identifying either or both exceptionality(ies) frequently fails to occur. The failure to recognize dual exceptionalities has the effect of denying many twice-exceptional students the opportunities to receive academic interventions designed to both address the development of learning strengths remediate learning weaknesses (Foley-Nicpon et al., 2011).

As noted, some of the difficulties in identifying twice-exceptional students can be attributed to the phenomenon of masking which may take one of three forms (Baldwin et al., 2015; National Association for Gifted Children (2009), <http://www.nagc.org/sites/default/files/Position%20Statement/twice%20exceptional.pdf>). First, for some twice-exceptional students, high intellectual functioning compensates for or “masks” a full expression of their disability. For example, a child with exceptional

verbal comprehension skills, high creativity, and an unusually large vocabulary might be identified as verbally gifted even though that student has a disability in written expression. However, such a student might not be identified for special education services that could help more fully develop their potential because the child's academic strengths make the demonstration of the disability less obvious and it remains unrecognized. For others, the disability is recognized but its severity masks the expression of gifts and talents, or providing remedial interventions is prioritized over addressing academic talents. For example, a child with exceptional mathematical abilities who also exhibits aggressive, maladaptive behaviors – which typically do not go unnoticed in the classroom – might receive behavioral interventions for an emotional disability but not academic interventions to strengthen mathematical gifts. For a third group of twice-exceptional students, the combination of gifts and disabilities obscures or masks the expression of both exceptionalities and makes their academic abilities appear to be average, rendering them identified and served for neither exceptionality (Baldwin et al., 2015).

Due to the masking phenomenon, some researchers (Foley-Nicpon et al., 2011; Silverman, 2009) have advocated identification procedures and mechanisms that emphasize cognitive skills often recognized in twice-exceptional students, while deemphasizing those that highlight typical learning challenges. (Further descriptions of specific cognitive, social, and emotional correlates of twice-exceptional students will be addressed in the section titled “Psychosocial Correlates”.) For example, many twice-exceptional learners demonstrate strong capacities in verbal fluency, fluid intelligence, visual spatial areas, and divergent thinking; however, they show challenges in processing

speed and working memory (Assouline, Foley-Nicpon, & Doobay, 2009; Fugate, Zentall, & Gentry, 2013; Kalbfleisch & Loughan, 2012). Moreover, students with learning disabilities, including those who are gifted, often exhibit a significant discrepancy between measured intelligence and academic achievement and/or they show a significant discrepancy between and among different indices on intelligence measures. Because working memory and processing speed are typical areas of cognitive weakness for twice-exceptional students, whereas verbal comprehension and visual-spatial skills are typically cognitive strengths, these weaknesses can depress overall IQ scores notwithstanding demonstrable cognitive strengths. Consequently, some researchers (Foley-Nicpon, 2016; Kalbfleisch, 2014; Kalbfleisch & Loughan, 2012; McKenzie, 2010) suggest using optional measures of general cognitive ability – such as a General Ability Index (GAI) on the Wechsler Scales of Intelligence (WISC-IV; Wechsler, 2003) – which reflect a student’s higher order cognitive functioning without the depressing influence of working memory or processing speed, rather than a full scale intelligence measure, as part of a comprehensive set of identification assessments to identify twice-exceptional students. Advocates of using intelligence assessments in this way argue that this strategy has the potential to increase the likelihood of strong performance on abilities measures which may promote identification of giftedness, can be helpful in understanding learning patterns of twice-exceptional youngsters, and can provide information to guide programming (McCallum & Bell, 2013). In a similar vein, some researchers (Silverman, 2009) advocate taking the highest index or battery score a twice-exceptional student attains on any measure of ability or intelligence as the most defensible estimate of their cognitive abilities.

Other researchers (Baldwin et al., 2015; McCoach et al., 2001) have warned against using discrepant scores on ability and intelligence assessments to identify gifted students with learning disabilities. These researchers criticize the discrepancy approach as “waiting to fail” because many gifted students might not show a severe discrepancy and/or might respond to interventions in ways that are comparable to underachieving gifted students without disabilities. Due to these concerns, critics of this approach recommend a Response-to-Intervention (RtI) model as a more defensible systematic mechanism for identifying disabilities generally, and twice-exceptional students specifically (Fuchs & Fuchs, 2006; McCoach et al., 2001). RtI is a multi-tiered system of supports and services offered in the general education setting. RtI requires a comprehensive and team-based collaborative approach for implementing research-validated instruction, monitoring the academic progress of all students, and recognizing the academic strengths and weaknesses of students in a way that promotes the identification of and provision of services to students with disabilities, including those that are gifted (Fuchs & Fuchs, 2006).

While the RtI approach has garnered support among some in the gifted education community (Coleman, 2014; McCoach et al., 2001), others (Assouline & Whiteman, 2011; McKenzie, 2010) have criticized the approach for a number of reasons. For example, because RtI assumes that teachers in general education classrooms are able to skillfully provide evidence-based, high-quality instruction and academic interventions matched to diverse student needs, some question whether general education teachers – who typically lack training in the nature and needs of gifted learners – will recognize the talents of struggling gifted students including those with disabilities. In addition, due to

the phenomenon of masking, twice-exceptional students might not be falling significantly below grade level thus precluding a referral for evaluation in the RtI context (McCallum, Bell, Cole, & Miller, 2013; McKenzie, 2010). Stated differently, many twice- exceptional students do not show achievement deficits relative to same aged peers but rather to their own measured ability (Lovett, 2013), and they might not receive services to address learning challenges. Thus, while the academic performance of twice-exceptional students may appear to be average, their difficulties expressing talent in fact reflects a “failure to thrive” that the RtI model might not recognize (Assouline & Whiteman, 2011; McCallum et al., 2013; Morrison & Rizza, 2007). Alternatively, due to the adverse impact of the disability on the acquisition of academic skills and expression of talent, some twice-exceptional students might not appear “gifted enough” in the RtI context to support a referral for gifted program identification. Finally, while the bulk of research addressing the efficacy of RtI has addressed specific learning disabilities, far less research on RtI has focused on its efficacy for identifying and meeting the academic needs of students who are gifted or who have other disabilities such as ASD or EBD. Thus, the need for additional investigations of the efficacy of RtI in identifying disabilities and giftedness in a wide variety of disability populations is warranted (McCallum et al., 2013).

PSYCHOSOCIAL CORRELATES

The behavioral, social, emotional, and cognitive correlates of twice-exceptional students have garnered an increasing research focus in the fields of gifted and special education. These psychosocial correlates include cognitive variables such as ability, creativity, and achievement, as well as non-cognitive variables such as those related to perceptions and beliefs about self, motivation, task commitment, resilience, grit, growth

mindset, social supports, and environments (Subotnik, Olszewski-Kubilius, & Worrell, 2011). In part, this deepened focus derives from the recognition that understanding and nurturing these correlates have the potential to promote both identification and the effective delivery of services to this group of students. It also derives from the emerging consensus that these variables are developmental and change over the course of a child's life, are malleable and amenable to purposeful interventions, and contribute to achievement outcomes across the lifespan (Subotnik et al., 2011). While each student has his or her unique set of psychosocial characteristics, some general conclusions can be drawn as they relate to students who are gifted, who have disabilities, and who are twice-exceptional. In this section, both general findings and those related to specific disabilities are presented.

Broadly speaking, existing research findings show that gifted students have comparable, and often higher, social and emotional health outcomes in comparison to non-gifted peers (Lee, Olszewski-Kubilius, & Thompson, 2012; Martin, Burns, & Schonlau, 2009). In addition, the self-perceptions of gifted students are generally higher than those of comparable non-gifted peers (Missett, 2014). Similarly, the empiric literature suggests that gifted students show more goal-directed behaviors and traits related to motivation, resilience, and task commitment – all of which are related to improved achievement outcomes – in comparison to non-gifted peers (Clinkenbeard, 2014). Finally, research suggests that high intelligence or ability, which is often a determinative factor in the identification of gifted students, confers emotional health advantages and may serve as a protective factor against mental health challenges and disorders (Mueller, 2009).

In contrast to the overall positive findings related to gifted students, research findings in the special education literature show that students with disabilities – including but not limited to SLD, ADHD, emotional and behavioral disabilities, and ASD – have overall poorer social, emotional, and mental health outcomes in comparison to students without disabilities (Hallahan et al., 2012). For example, students with disabilities often have poor self-perceptions, more challenged peer and family relationships, and poorer outcomes on measures of motivation and self-regulation. These all contribute to overall weaker academic achievement. Thus, understanding the social and emotional outcomes of students with one or more gifts and one or more disabilities becomes complex.

While the research addressing the psychosocial correlates of twice-exceptionality is nascent, some general conclusions can be drawn. Specifically, the empiric literature shows that gifted students without disabilities have higher overall self-perceptions than twice-exceptional students with SLD or ADHD (Antshel, Faraone, Maglione, Doyle, Fried, Seifman, & Biederman, 2008; Foley-Nicpon, Rickels, Assouline, & Richards, 2012). However, twice-exceptional students often have higher overall self-perceptions than students with disabilities who are not gifted (Grizenko, Zhang, Polotskaia, & Joobar, 2012). Similar findings exist related to social relationships and emotional health outcomes (Antschel, 2008). This research suggests that giftedness supports the psychosocial health of students with disabilities.

The literature also shows a variety of typical cognitive and behavioral traits that hamper learning. For example, twice-exceptional students typically exhibit poor spelling skills, challenges with self-regulations, poor attentional abilities on topics of little interest, relatively poor social networks, and deficits in emotional and behavioral control

(Foley-Nicpon et al., 2012; Kalbfleisch, 2014). Despite these challenges, the literature on the cognitive and behavioral traits of twice-exceptional students also suggests many areas of strength. These include high verbal comprehension, verbal expression, and oral comprehension abilities (Kalbfleisch, 2013). Additionally, many twice-exceptional students exhibit strong divergent and imaginative thinking skills, visual-spatial capacities, and numerical processing strengths (Fugate et al., 2013; Foley-Nicpon, 2015).

In addition to the more general research base described above, some specific characteristics and findings related to gifted students with ADHD, SLD, ASD, and EBD have been described and are discussed. It should be noted, however, that the sample sizes for much of this research were small and further replication research is necessary to draw more confident conclusions (Foley-Nicpon, 2015). It should also be noted that the research on gifted students with visual, hearing, and other physical disabilities is sparse, and it is difficult to generalize from the research on other groups of twice-exceptional students to these populations.

Twice-Exceptionality in Attention Deficit Hyperactivity Disorder

One of the most frequently described and researched groups of twice-exceptional students are those who have ADHD (Foley-Nicpon et al., 2012). According to the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition [DSM-V]; American Psychiatric Association (2013), ADHD is characterized by hyperactivity and/or inattention. Typically students with ADHD exhibit, in varying degrees of severity, symptoms including problems sustaining attention, daydreaming, difficulties listening attentively for sustained periods, with task-commitment and follow through, sitting still, impulsivity, organizational challenges, excessive talking and fidgeting, and interrupting

others. ADHD is estimated to affect approximately 9-10% of school-aged children (Visser, Zablotsky, Holbrook, Danielson, & Bitsko, 2015).

While additional research is still needed, some initial studies suggest twice-exceptional students with ADHD have more academic, social, and emotional problems including deficits in self-perceptions, as well as poorer working memories, in comparison to gifted students without ADHD (Antshell, 2008; Foley-Nicpon et al., 2012). Despite these challenges, there is evidence that some gifted students with ADHD have greater creativity as measured by divergent thinking assessments than gifted students without ADHD (Fugate et al., 2013). These studies suggest that educational programs designed to develop creativity, both as pathways to learning and as learning outcomes, are recommended for gifted students with ADHD (Abramo, 2015). These findings also support the proposition that divergent thinking assessments should be used to identify gifted students with ADHD who might otherwise go unidentified due to the phenomenon of masking (Fugate et al., 2013).

Twice-Exceptionality in Autism Spectrum Disorder

According to the *DSM-V*, ASD is a neurodevelopmental learning-related disorder. It is characterized by persistent deficits in social communication and social interaction across multiple contexts. The term “spectrum” refers to the wide range of symptoms, skills, and levels of impairment that children with ASD can have. It is estimated that approximately one in 68 children have ASD.

While only briefly described here, the cognitive and academic profiles of gifted students with ASD have been well-articulated in recent literature on twice-exceptional students (Assouline et al., 2009; Foley Nicpon et al., 2012; McBride, 2012). Gifted

children with ASD have been found to exhibit a complex constellation of psychosocial strengths and challenges. For example, math fluency and written expression are often recognized as strengths in this population. Moreover, many gifted students with ASD demonstrate self-regulation skills and can apply them to projects and tasks of interest. However, they are typically limited in the ability to apply self-regulation skills to self-management, as well as behavioral and emotional control.

Additional findings related to gifted students with ASD indicate that the self-concepts and self-perceptions of social and behavioral functioning in this group generally are in the average range (Foley-Nicpon et al., 2015). However, teacher and parent perceptions of social and behavioral functioning of students in this group are comparatively lower than the perceptions of social and behavioral functioning of students without ASD. These differences could be attributable to diagnostic symptoms of low self-insight in students with ASD. Additional findings suggest that social isolation and sustained, intense interest in an area, which results in the exclusion of others, are characteristic of gifted students with ASD (Assouline, Foley-Nicpon, & Doobay, 2009).

Twice-Exceptionality in Specific Learning Disabilities

According to IDEA (2004), SLD refers to disorders in one or more of the basic psychological processes involved in understanding or using spoken or written language that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Twice-exceptional students with SLD (e.g., dysgraphia, dyslexia, dyscalculia) have received considerable attention in the twice-exceptional literature, although additional studies are needed to better understand the nature and needs of these students (Foley-Nicpon, Assouline, & Fosenburg, 2015; Reis et al., 2014).

Findings on this group of students additionally show that they tend to demonstrate verbal precocity and creative thinking skills but poor organizational, reading, comprehension, and spelling skills (Kalbfleisch, 2014). Some research on gifted students with SLD have also found these students have lower academic self-concepts than those of gifted peers without SLD, but their social self-concepts are comparable to students without SLD (Foley-Nicpon et al., 2015).

Twice-Exceptionality in Students with Emotional and Behavioral Disabilities

Under the IDEA of 2004, EBD is a categorical label used to indicate students with behavioral or emotional responses in school so different from appropriate age, cultural, or ethnic norms that those responses adversely impact educational performance (Hallahan et al., 2012). Many students with EBD experience disorders of mood, anxiety, oppositional defiance, and/or conduct.

Although emotional and behavioral disabilities constitute a high frequency disability (Hallahan et al., 2012), and it is evident that some gifted students have emotional and behavioral disabilities, empirical investigation of twice-exceptional students with conduct disorder, depression, anxiety, bipolar disorder and other emotional disorders continues to be sparse (Martin et al., 2010; Missett et al., 2016). However, some general conclusions regarding this population can be drawn. It is estimated that 80% of children with EBD (including those who are also gifted) have many of the same difficulties with memory, sensory integration, anxiety, attention, and written expression as other high incidence populations of students that are more frequently described in the twice-exceptional literature (Hallahan et al., 2012; Morrison & Rizza, 2007). In addition to displaying the aforementioned characteristics, many gifted students with EBD are

further described as extremely intense, excessively perfectionistic, and highly sensitive (Missett et al., 2016; Morrison & Rizza, 2007). As areas of strength, many gifted students with EBD demonstrate high critical and creative thinking abilities and verbal precociousness (Missett et al., 2016).

All of the above factors contribute to poor emotional, behavioral, and academic outcomes for many students with EBD (Hallahan et al., 2012) and create the risk of underachievement, failure, suicide, and drop-out among those who are gifted (McCoach & Siegle, 2008; Zabloski & Milacci, 2012). Moreover, the cognitive strengths of students with emotional disabilities often diminish with the increasing presentation symptoms (Hallahan et al., 2012). Consequently, early and focused academic interventions, including those addressing academic strengths, have been recognized as critical steps in serving gifted students with EBD (Antshel, 2008; Hallahan et al., 2012; Missett, 2013).

Beyond the above research findings, it is essential that educators recognize the diversity that exists in diagnostic backgrounds of twice-exceptional students. As such, educators and school personnel such as psychologists and counselors should engage in a comprehensive academic and psychological evaluation to assess twice-exceptional students in their self-perceptions, resilience, emotional characteristics and areas of academic talent in order to plan the most appropriate individualized curriculum and academic interventions (Assouline & Whiteman, 2011).

PROMISING CURRICULUM AND ACADEMIC INTERVENTIONS

As recognition of the existence and nature of twice-exceptional students has increased, so too has recognition that these students must be afforded the opportunity to experience a wide range of rigorous academic interventions and services directed toward

developing their academic, social, and emotional strengths. Despite this recognition, in practice the federal mandate to serve students with disabilities has resulted in the prioritization to provide deficits-based services and remediation for weaknesses rather than talent development or gifted programming (Baum et al., 2014). Consequently, experts in the field advocate for a two-pronged approach when considering meeting the needs of twice-exceptional students (Foley-Nicpon, 2015; Kalbfleisch, 2013). Rather than the singular focus on remediation for weaknesses associated with the disability, additional rigorous academic interventions available to other gifted children with a strength-based focus should be offered to twice-exceptional students (Assouline, Colangelo, VanTassel-Baska, & Lupkowski-Shoplik, 2015; Baum et al., 2014; Reis et al., 2014).

While studies that document the impacts of specific interventions and services on the academic and psychosocial growth of twice-exceptional students are limited, several research findings are worth noting and some general conclusions from this literature can be drawn. For example, research suggests that a strengths-based approach to working with twice-exceptional students promotes academic, social, and emotional progress. Specifically, Baum and Owen (2004) found that when educators adopted programs and interventions emphasizing talent development rather than deficit remediation for twice-exceptional students these students emulated the social, emotional, and academic characteristics of gifted students rather than those of students with disabilities. Additionally, studies have found that advanced placement courses and acceleration are effective academic options for twice-exceptional learners provided they are accompanied by appropriate and relevant accommodations that would support their psychosocial health

(e.g., academic and social self-perceptions, anxiety reduction, organizational skills) in these advanced learning environments (Foley-Nicpon & Cederberg, 2015; Schultz, 2012). Moreover, academic experiences emphasizing creative problem solving and production may be particularly beneficial to many twice-exceptional students. As noted previously, the findings of Fugate et al. (2013) showing that gifted students with ADHD had higher measured divergent thinking abilities than their gifted peers without ADHD arguably supports the conclusion that academic tasks focused on divergent thinking and problem-solving should be prioritized over those that rely on rote memory and the recollection of facts (Assouline et al., 2015). Another promising strategy for talent development among twice-exceptional students is to maximize their opportunities for ownership of their learning along with allowances for individual interest and flexibility in both learning content and learning process (Willard-Holt, Weber, Morrison, & Horgan, 2013).

In addition to services and interventions addressing academic talents of twice-exceptional students, educators should also offer an affective curriculum to develop additional social and emotional correlates of these students. Research strongly shows that psychosocial correlates such as resilience, task motivation, self-perceptions and self-regulation, all of which are developmental and strongly correlated with academic achievement, are amenable to targeted academic interventions (Assouline, Foley-Nicpon, & Huber, 2006; Subotnik et al., 2011). As many twice-exceptional students have exhibited strong potential for resilience, self-advocacy and self-regulation with appropriate supports, specific guidance and interventions that facilitate the development of these traits is encouraged to help students navigate challenges associated with learning difficulties (Foley-Nicpon, et al., 2011; Foley-Nicpon, Assouline, & Fosenburg, 2015).

Finally, it is critical that twice-exceptional students receive special education services for their difficulties including those that support compensation strategies (Reis et al., 2014). When students with disabilities are better equipped to manage the academic, social and emotional challenges associated with their disabilities, they are better able to thrive in academically rigorous settings (Foley-Nicpon et al., 2015). Like other interventions addressing the development of strengths, these strategies and the purpose for them should be explicitly incorporated into a student's IEP or 504 Accommodation Plan.

PROPOSED DIRECTIONS FORWARD

Although researchers and educators in the field of gifted education have made important advances in the ways in which schools identify twice-exceptional students for gifted programs and then provide defensible and effective instruction to them, additional work in these directions are warranted. Consequently, the National Association for Gifted Children (NAGC) recently articulated a set of recommendations to improve identification processes that enable twice-exceptional students to be recognized as well as the services that are effective for developing gifts and disability(ies)

(<http://www.nagc.org/sites/default/files/Position%20Statement/Ensuring%20Gifted%20Children%20with%20Disabilities%20Receive%20Appropriate%20Services.pdf>). While a comprehensive list of recommendations can be found at the above website, a summary of these specific recommendations include:

- Schools should provide comprehensive assessment by qualified school personnel whenever a disability is suspected in a gifted child or when a

student identified with a disability shows signs of advanced reasoning, creativity, or problem solving.

- Schools should ensure that parents who report concerns of underperformance in a bright child are informed of the student's rights under the IDEA of 2004 concerning comprehensive assessment and the process to request it.
- Due to the complexities in assessing twice-exceptional students, schools must look beyond using a single approach that may identify only the disability or the giftedness. Instead, comprehensive assessments in a process managed by school psychologists who understand both sets of exceptionalities and that are informed by parent experience provides the greatest promise for identifying and appropriately serving students with gifts and talents and disability(ies). For example, schools can utilize RtI to ensure that screening identifies all potential twice-exceptional children *as well as* look for students whose performance is discrepant across major academic areas, highly variable across academic tasks, or whose school performance, as reported by parents, differs greatly from outside of school learning and achievement.
- Schools should include gifted education specialists in planning strengths-based interventions for twice-exceptional students in IEPs and 504 Plans and be mindful of findings showing the most effective interventions take both exceptionalities into account.

- Schools should provide training for teachers and other school professionals so they can understand the nature and psychosocial characteristics of twice-exceptional students to improve identification and raise academic performance.

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