

School Mental Health Practice Brief

Twice Exceptional Learners

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Twice-exceptional learners have both areas of talent and challenge. While definitions vary, the most succinct and empirically grounded, published in Reis et al. (2014), was developed through the National Commission on Twice-Exceptional students. It states,

> *Twice-exceptional learners are students who demonstrate the potential for high achievement or creative productivity in one or more domains such as math, science, technology, the social arts, the visual, spatial, or performing arts or other areas of human productivity AND who manifest one or more disabilities as defined by federal or state eligibility criteria. These disabilities include specific learning disabilities; speech and language disorders; emotional/behavioral disorders; physical disabilities; autism spectrum disorders (ASD); or other health impairments, such as Attention Deficit/Hyperactivity Disorder (ADHD; p. 222).*

Based on this definition alone, twice-exceptional students represent a diverse group of learners with diverse needs. While this broad description has led to criticism in the literature and claims that the base rate is quite low (Cheek et al., 2023), it remains a useful umbrella term to capture concepts of academic, ability, and social/emotional asynchrony that can exist in one student. The argument is not that this phenomenon is frequent, nor that specific recommendations should be made for this very diverse population. Rather, the term twice exceptional provides a common language for educators and mental health practitioners to use to describe this population of learners.

While there are federal laws related to disability and education, there is no federal-level definition of “giftedness” or talent. Instead, states determine how it is defined and whether services in public schools are mandated (Rinn et al., 2020). By this fact alone, there will be variability in how twice-exceptionality is defined (Foley-Nicpon & Teriba, 2021). This represents both a challenge and an opportunity for educators, families, and the students themselves.

Despite issues inherent to the definition of twice-exceptionality, it is an important topic in research and practice due to issues of underrepresentation. In the field, there is increasing discussion and problem-solving related to underrepresentation of students of color in gifted education programs, but less so about students with disabilities (Thomas B. Fordham Institute, 2023). Yet, a recent examination of underrepresentation in gifted programming demonstrates that students with disabilities are more underrepresented than any other group (Peters et al., 2016). For some students, it may be their educational setting is solely focusing on their areas for growth, which could have negative implications for their social, emotional, and behavioral health.



It is important to note that twice-exceptionality will be by definition a low-incidence population, given base-rates for both high ability and disability. Additionally, there is limited empirical support about prevention, identification, and intervention. What we do know often comes from clinical samples, clinical case studies, and qualitative approaches. While these are excellent starts, it is important to ground what is said in the following sections within this context.

Identification Strategies

Accurate identification of twice-exceptionality is complex for multiple reasons. The first reason is related to the above-mentioned lack of consensus regarding how twice-exceptionality is defined (Jelly & Cormier, 2024). Second, the masking phenomenon, where ability and disability may mask each other, may occur (Reis et al., 2014). Third, there are few, if any, twice-exceptional policies in school districts across the US, suggesting a lack of guidance about how to appropriately assess or identify this population (Foley-Nicpon & Teriba, 2022). Fourth, both educational and psychological communities are involved in identification and intervention, and the two disciplines do not always communicate well. This can be problematic if students receive programming only for their ability or disability – not both – and if disability is identified first, talent domains are almost never acknowledged (Baum et al., 2014). Finally, there is ample heterogeneity in terms of presentation, depending on the area of ability and/or disability, making it challenging to properly identify and intervene (Reis et al., 2014).

For these reasons, accurate identification of both ability and disability is crucial to twice-exceptional learners' success (Jelly & Cormier, 2024). In a review of 19 assessment reports conducted in Canadian schools of students with high ability, disability, or twice-exceptional, Jelly and Cormier (2024) found that twice-exceptional students had no greater degree of mismatched school placements or misidentification than the other two groups, but that misidentification issues took place among all three. Further, assessments conducted typically were not comprehensive and none specifically referenced twice-exceptionality.

A few researchers have investigated how educators can use assessment data to identify and program for twice-exceptionality – particularly high ability with a learning disability. Maddocks (2020) examined the group administered ability and achievement subtest scores among 2,865 school-aged participants. Results suggested substantial subtest variation in the twice-exceptional group, with generally slower processing speed than what would be typical for one's age. Earlier, McCallum et al. (2013) outlined a similar approach for examining group-administered standardized ability and achievement tests where educators can establish various cut scores to screen for twice-exceptionality. Both studies are consistent with the need for more flexibility in identification models that consider variation in ability and achievement test performance to accurately identify twice-exceptional learners for talent development opportunities (Spiers Neumeister, 2024).



It would be remiss not to briefly consider creativity in a conversation about identification of twice-exceptionality. There is a wealth of literature about creative talent and its assessment (e.g., Plucker, 2023; Plucker et al., 2004), and scholars are beginning to emphasize the interplay of culture and social context in how it is identified. The area of exceptionality most linked to creativity is ADHD, and there is some evidence to suggest increased divergent thinking in those with self-reported ADHD symptoms (Hoogman et al., 2020). Others have linked psychopathology and creativity, but there are generally few studies supporting this belief (Paek et al., 2016). Additional investigation regarding how creativity manifests among those with ADHD in particular can push the field toward not only investigating the disadvantages of an ADHD diagnosis, but also the potential creative advantages (Hoogman et al., 2020).



Intervention Strategies

Few intervention studies exist with twice-exceptional populations, but those that do can help us consider general strategies that may be effective. For example, Speirs Neumeister's (2024) case study of how an independent school maximized the potential of twice-exceptional learners offers a model by which other schools can emulate their intervention strategies. First, the school established a "culture of acceptance." Since twice-exceptional prevalence was relatively high in this small, non-public school setting, it was advantageous to adopt a culture where students can have both access to rigorous curriculum and support for their disability. The twice-exceptional learners were also in a school with other high-ability youth who had their own asynchronous presentations, which facilitated acceptance. School cultures and communities that foster acceptance and celebrate diversity can have a positive impact on all students' social, emotional, and behavioral health. Second, all teachers were trained in working with high-ability youth, which guided understanding of the importance of differentiation based on students' individual strengths and needs. Finally, the inclusion of a learning specialist on staff who validated and advocated for all students' needs and served as a central contact for all stakeholders was extremely beneficial to students' academic and emotional development. With these foundations, the independent school created a framework of supports for twice-exceptional students. This framework emphasized developing areas of strength while accommodating for students' areas of challenge, which often is recommended in the literature (e.g., Reis et al., 2014; Foley-Nicpon & Assouline, 2020). Additional supports were in place for teachers and parents, such as individual meetings with the learning specialists, parent support groups, and professional development opportunities.



Educational Considerations

It may seem intuitive, but before any strategies can be implemented for twice-exceptional learners, educators first need to know what it is. There are few studies that discuss effective professional learning strategies for educators regarding twice-exceptionality, but we know it is needed, particularly for those outside of gifted education (Foley-Nicpon et al., 2013). Lee and Ritchotte (2019) found professional learning opportunities can be beneficial in terms of increasing educator knowledge and skills as well as changing perceptions. Learning about twice-exceptionality had a direct, positive impact on the students, such as improved academic and social/emotional development and school culture. The training encouraged educators to work within a response to intervention (RtI) or Multi-Tiered System of Supports (MTSS) framework, which is implemented in many districts nationwide. MTSS frameworks use data to make decisions about tiered levels of support. Using this framework could help educators identify the level of and responsiveness to assistance for both talents and challenges for each individual student (Lee & Ritchotte, 2019). Specific needs identified can then be documented in a Personal Education Plan (PEP; Foley-Nicpon & Teriba, 2022).

The most useful PEPs are formed by teams of professionals, which researchers frequently emphasize is the best approach to student planning and problem-solving (Speirs Neumeister, 2024). Here, teachers, administrators, special education and gifted education coordinators, and school mental health professionals collaborate to generate interventions for specific students' academic, social, emotional, and behavioral needs. These plans are shared with parents, who also sometimes provide input based on what they know about their child. Involving parents in the team gives them the chance to learn the proper channels of communication, which ultimately benefits both students and teachers. Meta-analytic findings corroborate that the team approach is best practice (Gierczyk & Hornby, 2021). It is important to note that PEPs will will vary significantly for twice-exceptional learners, given the diversity of strengths and areas for growth present in this population. For example, Mahatmya et al. (2023) found the profiles of psychosocial and academic strengths among twice-exceptional learners were like those of high ability learners without a disability, suggesting they do not cluster in one or more area (e.g., STEM).

A recent study offers some key insights into how educators can interact with twice-exceptional learners that is reflective of the diversity of student presentation. van Gerven (2024) worked with 78 teachers who each implemented a Systematic Support Program (SSP) with one of their twice-exceptional students. The SSP model is grounded in systemic, RtI, and solution-focused approaches. These approaches acknowledge the student exists within interconnected systems and sees opportunities and possibilities as parts of solving problems. It includes systematic exploration, where educators identify a specific area for change, as well as times when the problem behavior is not displayed (i.e., “golden moments”). It includes systematic intervention, where educators develop strategies to address the specific area for change, starting with the smallest step one can take through “golden sentences” (e.g., “I think things would go better if…”). Results indicated all teachers who stated this approach increased their success with the identified twice-exceptional learner and that the SSP was a “road map” for designing individualized academic, social, emotional, and behavioral interventions. While the process of systematic evaluation took longer to complete than teachers liked, the overall success made the approach very popular.



Interpersonal Considerations

As Spiers Newmeister (2024) exhibited, creating a culture of acceptance is critical to twice-exceptional student success, and this culture oftentimes starts with peer acceptance. There are some creative ways peers can increase their awareness of what twice-exceptionality is. One is through using portrayals of twice-exceptional individuals in movies and books. For example, Atmaca et al. (2022) recently conducted a qualitative document analysis of eight movies where the main character could be described as twice-exceptional, even though the exact term was not used in the films. Authors concluded that the character portrayals were mainly accurate depictions of twice-exceptionality. They were generally hopeful and optimistic views, but also named the problems characters faced due to their disabilities. Atmaca et al. (2022) suggested a guided-viewing approach to watching one of the movies in the classroom, which could potentially increase empathy and understanding among peers. Similarly, Renzulli and Gelbar (2020) suggested a similar approach where movies or books were discussed in sessions facilitated by trained school counselors.

Transition to College

Increasingly, educators are considering what are important interventions for twice-exceptional students as they transition to postsecondary education. For example, Madus et al. (2023) interviewed 11 professionals who supported high ability students with ASD at 10 prestigious universities. Strategies for success included program and service components (e.g., having a dedicated contact person on campus, introducing students to university resources, and providing an orientation program the summer before they start); student skills and traits that impact success (e.g., social, self-advocacy, and self-management skills, motivation, and early connections with campus supports); family knowledge to enhance success (e.g., fostering independence, understanding differences in expectations and services); and secondary personnel knowledge to enhance success (e.g., promoting student independence and self-advocacy). Scholars also suggested holding individual therapy sessions for twice-exceptional youth where they outline the student's strengths and areas for growth within the context of college classes to take, majors to consider, and careers that would be good fits (Renzulli & Gelbar, 2020).



Key Implications for Practice

Following is a brief list of implications for practice for working with twice-exceptional learners in schools:

- The diverse nature of twice-exceptionality necessitates an individualized approach toward identifying strengths and areas for growth. This can include a mix of acceleration and differentiation in areas of strength, while remediation in areas of need (van Gerven, 2024).
- Strengths-based learning perspectives (Reis et al., 2014) should guide all programming just as much as remediation of challenges (Gierczyk & Hornby, 2021). These can be activities such as higher-level questioning at home and school (Ritchotte & Zaghlawan, 2019).
- Collaboration and teamwork across disciplines is key to twice-exceptional student success (Gierczyk & Hornby, 2021; Lee & Ritchotte, 2019; Speirs Neumeister, 2024).
- Allow students to participate in their IEP or 504 meetings (Madus et al., 2023) and include in them goals related to the transitions
- Consider PEPs where academic strengths are also included in student plans (Foley-Nicpon & Teriba, 2022).

Related Resources

- **The Davidson Institute Guides to Twice-Exceptional Students:** https://www.davidsongifted.org/resource-library/gifted-resources-guides/guides-to-twice-exceptional-students/
- **Bridges 2e Center Resources:** https://losangeles.bridges.edu/resources.html

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