

Strategies for Supporting Students Who Are Twice-Exceptional

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Students with disabilities have complex learning needs. It wasn't until the 2004 reauthorization of the Individuals with Disabilities in Education Act (IDEA) that federal attention was pointed towards students who are both gifted *and* have a disability. This concept, known as twice-exceptionality, is a difficult concept to fully comprehend as the characteristics of these students can be complicated. Reis, Baum, and Burke (2014) define twice-exceptional (2e) students as those who have simultaneous characteristics of a gifted student and a student with a disability. In order to earn the 2e label, students must be identified as having high aptitude as well as a disability as classified by their state of residence. Although research on 2e students has increased within the last three decades, the needs of these students are not necessarily being met in schools (National Association for Gifted Children, 2013). There is still limited consensus on the needs and characteristics of these students as well as a lack of understanding of the most effective strategies for teaching them (Reis et al., 2014).

There are stark differences between 2e students and those students identified as having solely a disability or gifts and talents. Students with disabilities are often recognized by their families and teachers when they are not showing the same academic, social, or developmental characteristics as same-age peers. In the educational setting, teachers often target the areas of development that need support when working with students with disabilities. Students with gifts and talents often stand out to their families and teachers in other ways; they display strengths, talents, or interests that differentiate them from same-age peers. Teachers of students with gifts and talents may work to create advanced programming that appropriately challenges them. According to Baum and Owen (2004), what complicates the identification and progress of 2e students is the fact that their characteristics often mask each other; their disability can mask their gifts and talents, or their gifts can mask their disability. Furthermore, because of the variation of characteristics among defined disabilities, it is challenging to describe specific

characteristics of 2e students (Barnard-Brak, Johnsen, Hannig, & Wei, 2015). In the educational setting, teachers may experience difficulties meeting the needs of 2e students while simultaneously addressing their remarkable strengths because these students don't meet the traditional definitions of their dual exceptionalities (Reis et al., 2014).

According to the National Center for Education Statistics, an estimated 3,189,000 American school-age students were enrolled in programs for gifted students during the 2011-2012 academic year (Snyder, de Brey, & Dillow, 2016). It is estimated that between 180,000 (Davis & Rimm, 2003) and 360,000 (National Education Association, 2006) of those students are identified as 2e. Barnard-Brak et al., (2015) estimate that 9.1% of students with identified disabilities may be academically advanced or gifted. Because these students display significant strengths and varied challenges simultaneously, it can be difficult to see how they fit the characteristics of being gifted or having a disability. Existing research on these students has indicated difficulties in identification of 2e students due to a lack of uniform evaluation practices (e.g., Wormald, Rogers, & Vialle, 2015), teachers' expectations of students based on disability label (e.g., Missett, Azano, Callahan, & Landrum, 2016), and general lack of knowledge of effective practices to engage these students (e.g., Winebrenner, 2003). Reis et al. (2014) reported in a number of studies that teachers were reluctant to provide appropriately challenging opportunities for students because of their dual diagnoses. Students who are twice-exceptional are often served according to their first diagnosis; be it a gifted diagnosis

or a diagnosis of a disability (Baum & Owen, 2004).

In this article, we will identify five evidence-based strategies that teachers should consider when supporting and instructing 2e students in the elementary, middle, and secondary grades. We recognize that there are a multitude of strategies available to teachers of 2e students, but here we present those that can be most immediately implemented in teachers' classrooms. After a brief explanation of each strategy, examples of specific classroom applications of these ideas will be shared. See Table 1 for an overview of the application of these strategies.

Understand the difference between students who are 2e and those who are gifted underachievers without disabilities. When 2e students are not achieving to expectations, they may be misidentified as gifted underachievers. They may present some of the same behaviors and outcomes as 2e students, such as an inability to stay organized or unexplained differences between test scores and classroom performance. However, the underlying causes are different and the interventions and approaches, therefore, must be different as well (Reis & Ruban, 2005). A comprehensive evaluation is necessary to determine whether a student is underachieving or has a comorbid disability. A multidimensional approach to identifying twice-exceptionality should include psychometric assessments, behavioral checklists, portfolio reviews, and interviews (Reis et al., 2014). A combination of formal and informal measures is useful in determining if a student is a 2e student or a gifted student who is underachieving.

Table 1
Strategies to Support 2e Students in Educational Settings

<u>Strategy</u>	<u>Application in educational settings</u>
Emphasize the strengths of 2e students first	Provide opportunities for student choice; allow the student multiple ways to respond to new content
Address the needs of 2e students	Explicitly link new content to previous learning; teach organizational skills
Support the social-emotional needs of 2e students	Allow additional time for task completion to alleviate anxiety; help 2e students develop self-advocacy; teach stress management techniques
Recognize the difference between 2e students and gifted underachievers	After assessment data and other evidence is gathered, consider if the student is 2e or a gifted underachiever; provide the appropriate support(s) including counseling support, learning support, and/or gifted support
Collaborate and communicate to provide optimal support of 2e students	Invite gifted support personnel and disability support personnel to plan meetings; create a balance of activities that will offer both challenge and remediation

Sources: (King, 2005; Willard-Holt, Weber, Morrison, & Horgan, 2013)

Contrasted with the characteristics listed in Table 2, one characteristic more commonly associated with underachievement is a dependent style of learning in which the student prefers that the teacher provide the information in a structured lecture-like format. Other characteristics include alienation, withdrawal, distrust, pessimism, anxiety, impulsivity, inattention, hyperactivity, distractibility, aggression, hostility, resentment, passive-aggression, social immaturity, fear of failure, negative attitudes toward school, antisocial attitudes, fear of success, an external locus

of control, perfectionism, lack of goal-directed behavior, poor coping skills, poor self-regulation, and heightened defense mechanisms (Peterson, 2006). Some of the aforementioned characteristics are also associated characteristics of students with disabilities. Because these characteristics can present themselves in both underachieving gifted students and 2e students, it is critical that professional educators take a multidimensional approach to determine if there is the presence of a disability or not. Students presenting these traits and characteristics

will benefit from working with school counselors and other trained personnel.

Provide instruction that capitalizes on the student's strengths *first*. It may seem counterintuitive to address the strengths of 2e students before their needs. Don't be mistaken – it is important to balance our attention to the strengths and needs of 2e students so that their individual education needs are appropriately met. Considering the strengths and interests of the student before addressing their areas for remediation is a concept that has been strongly supported in 2e research (e.g. King, 2005). Many researchers argue that talent development is the most crucial component of the education of 2e students (e.g. Reis et al., 2014).

Identifying the specific strengths on which to capitalize can be a difficult task in itself. Baldwin, Omdal, and Pereles (2015) have identified several questions that educators can consider when trying to identify the specific strengths of a student. Such considerations include the areas in which the student excels, the topics in which the student demonstrates advanced knowledge, and how the student uses their strengths to mitigate their areas of need. Families, assessments, checklists, and interviews can also support educators in determining the specific strengths of 2e students. When 2e students' strengths are emphasized in their educational experiences, they have a more positive outlook on their difficulties (Wang & Niehart, 2015). Wang and Niehart found that by addressing the strengths of 2e students, their academic self-concept increased. This is an important finding as many psychological studies have noted that the negative psychological traits of 2e students, such as frustration confronting weaknesses and difficulty setting realistic

goals, can have problematic influences on their academic achievement (e.g., Lovecky, 2004).

One way that educators can capitalize on the strengths of 2e students in their classrooms is to teach the way that students learn (Winebrenner, 2003). If, for example, a 2e student learns best when permitted to restate the new content, teachers can provide multiple opportunities for student response. In actuality, students learn best when content is represented in multiple ways (UDL Center, 2014), and teachers are encouraged to identify how they can implement this practice on a regular basis in their classrooms.

Another way that educators can focus on the strengths of 2e students is to set a fair level of challenge for the student. When 2e students are provided opportunities to problem-solve and use their creativity, they are more open to participate in challenging curriculum (Baum & Owen, 2004). For example, some 2e students with a disability in the area of writing and gifts and talents in the area of creativity may be able to create work products that go beyond traditional paper-and-pencil approaches; perhaps these students may best show what they've learned by creating original video content or a photo essay.

Provide instruction that addresses the needs of 2e students *second*. Educators and families cannot forget to address the needs of 2e students. Targeting the needs of 2e students should be the secondary focus of educators; when educators prioritize the targeting of needs, 2e students can develop feelings of frustration (Baum & Owen, 2004). When educators place less emphasis on the disabilities of 2e students, those students demonstrate a greater willingness to attempt difficult

tasks, while also becoming more creatively productive (Baum & Olenchak, 2002). It is not uncommon that the needs of 2e students are masked by their obvious strengths and gifts in other areas. Experts recommend that problem-solving teams such as student support teams, multidisciplinary teams, and child study teams identify if the needs of 2e students

are learning needs or social-emotional needs in order to best address them. Because of the inherent variety of disability characteristics, it can be challenging to summarize the needs of 2e students. Table 2 identifies some of the more common needs of 2e students based on their disability.

Table 2
Characteristics of Some 2e Students According to Disability

<u>Twice-exceptionality</u>	<u>Description of the Learner</u>
Specific learning disability	Forgetfulness, difficulty with memory tasks, delayed reading skills, difficulty organizing their written or spoken ideas, delayed mathematical skills, discrepancy between verbal and written communication
Emotional and behavioral disability	Easily frustrates, focuses on their limitations, poor self-concept
Attention deficit hyperactivity disorder	Difficulty focusing, disorganization, difficulty maintaining attention during less preferred tasks
Autism spectrum disorders	Intense focus in preferred subjects, difficulty making and maintaining friendships, uncooperative behavior

Educators need to find balance between identifying and addressing each need of these students and simultaneously avoiding unnecessary or inappropriate labeling. A number of effective practices have been recommended in the 2e literature as evidence-based interventions to support students' needs. Winebrenner (2003) suggests that teachers explicitly link new content to previous learning. One challenge for students with a comorbid learning disability is the ability to relate new and old content. When teachers provide

informed instruction to students (e.g., "Today we are learning about how to calculate the area of a rectangle. This relates to last week's topic of determining the number of square units in your geoboard shapes; last week we counted square units to find the area. This week we will explore the algorithm for calculating area"), they are assisting students in making links to their prior knowledge. Teachers can also help 2e students link new content to previous content by having students brainstorm what they know about a new

topic, complete an advance organizer about the topic, or engage in a full class completion of a Know-Wonder-Learn (KWL) chart.

Another challenge for some 2e students is their ability to stay organized (Baldwin et al., 2015). Teachers can provide a structure that promotes organization in their classrooms. For example, the use of color-coding materials can assist 2e students in locating and storing their subject-specific belongings in and out of the classroom. Providing students with a structure for class note-taking can support their organization of new content (Boyle, 2010). Organizational skills are important for making progress on long-term projects and assignments, and these skills may need to be explicitly taught to 2e students. Although one recommendation for instructing 2e students includes project-based and inquiry-based approaches (Baldwin et al., 2015), 2e students with organizational difficulties will need assistance structuring their time and establishing short-term deadlines (Nielsen, 2002). Teachers can provide an overview of the assignment and establish short-term goals and checkpoints to optimize student success (Winebrenner, 2003).

Support the social-emotional needs of 2e students. Gifted students tend to experience greater asynchronicity in their social-emotional development than their neurotypical age-peers. This gap is even more pronounced in 2e students. Traditional academic interventions that are effective in supporting remedial students can be counterproductive for 2e students. These students are well aware of their strengths and difficulties; it is not uncommon for them to feel inadequate (Baldwin et al., 2015). These students may display elevated levels of anxiety, poor

academic self-concept, and executive functioning deficits due to the significant discrepancies between their strengths and weaknesses (Reis et al., 2014). Educators can support the social-emotional needs of 2e students by acknowledging their exceptional abilities while simultaneously providing appropriate accommodations, therapeutic interventions, and specialized instruction. These may include evidence-based interventions to develop social skills and executive functioning, counseling and therapeutic supports, and accommodations that include alternative ways to learn material and demonstrate understanding (Baldwin et al., 2015; Winebrenner, 2003).

Students with twice-exceptionalities need a nurturing and safe classroom environment that supports the development of their potential (Reis, et al., 2014). Researchers (e.g. Baldwin et al., 2015; Reis & Ruban, 2005; Winebranner, 2003) have identified numerous features and strategies teachers can incorporate into their classrooms to cultivate a supportive environment for 2e students. Teachers can work to create a calm and predictable environment in which individual differences are acknowledged and valued. Instructionally, teachers can encourage students to develop their potential by providing appropriately challenging activities, by aligning assessment with student strengths and weaknesses, and by incorporating multiple modalities and flexible learning groups. When teachers define excellence in terms of individual student progress and model the use of compensation strategies, the social-emotional needs of 2e students are supported.

One specific activity to help develop a nurturing classroom environment for 2e students is through the identification of

banished or dead words (Ferguson, 2015). Although some may think that words synonymous with *intelligent* have a positive connotation, Schroeder-Davis (1999) found that gifted and talented adolescent students who were labeled by their peer groups (e.g. brainiac, nerd, bookworm) experienced a loss of popularity, exploitation, and incredibly high expectations. Similar labels may be assigned by peers in terms of one's disability status (e.g. dumb, stupid, idiot) which can cause students to experience low popularity and low expectations of their capabilities. Words that are not acceptable to use in the classroom, but are often used as synonyms for gifted, are written on small pieces of paper and posted on a bulletin board. Teachers can use a jail cell theme to convey that the banished words have been put away or incorporate a tombstone to illustrate a cemetery effect for dead words (Ferguson, 2015). Students can reflect on these terms and their impact on each other to promote self-understanding.

Require ongoing communication and collaboration between special education teachers, gifted specialists, and families. Currently, gifted students are not considered under the same umbrella of federal laws that mandate special education rights and services. Instead, they are supported to various degrees through a patchwork of state and local laws (Zirkel, 2016). Therefore, it is not only essential that 2e stakeholders are familiar with these requirements, but that they also make significant effort towards effective collaborations through the lens of the student's individualized education program (IEP).

Collaboration in planning and instruction for 2e students should be prioritized in schools (Coleman & Gallagher, 2015). The problem-solving team for 2e students should not only include the learning support teacher who provides remediation, but also the designated provider of gifted services. These two professionals should work together to provide a balanced program that addresses the student's disability while also providing the appropriate level of challenge and opportunity in the areas of giftedness (Baldwin, Baum, Pereles & Hughes, 2015). Although we strive to address strengths before needs as recommended in the research, aiming for a balanced approach calls for many hands. Table 3 lists some common considerations for various stakeholders that may serve as the foundation for deep and relevant collaboration and planning.

Schools and families can collaborate in a number of ways to meet the needs of 2e students. Families often have insights to share on their child's strengths, likes and dislikes, creativity, motivation, and attention. They can provide important clues about their child's passions that can be capitalized upon in determining the most appropriate programming options for their child. We suggest that families and schools collaborate as frequently as necessary. In some cases, check-ins may occur weekly, bi-weekly, or monthly as face-to-face meetings, phone conferences, or virtual web conference meetings. The use of a communication journal that travels between school and home can also increase the ongoing collaboration between families and the various educators providing services.

Table 3

Stakeholders' Considerations for Effective Collaboration of Twice-Exceptional Students

<u>Stakeholder</u>	<u>Sample Considerations</u>
Gifted teacher	Are the student's strengths being maximized? Is the student bored? How can learning better incorporate higher level thinking skills?
Special education teacher	Are the student's needs sufficiently supported? Are IEP goals appropriate and relevant? Are accommodations appropriate and utilized?
General education teacher	Is the general education classroom the appropriate learning environment for the student? Is differentiated instruction an appropriate strategy? How does the student socialize with classmates?
Family/guardian	How can the family nurture the student's social and emotional development beyond the school day? Are there any current family events that may impact learning? Do you feel that the other stakeholders view you as a valued and respected team member?

Final Thoughts

The concept of twice-exceptionality can be a challenge for schools, families, and the students themselves. However, we have outlined several considerations to ensure that the needs of 2e students are met in the school environment. When teachers acknowledge the strengths of the student before addressing their areas of need, there is a higher likelihood of success for the student (King, 2005). If teachers provide access to challenging content in multiple ways, 2e students may be more engaged (Baum & Owen, 2004). Additionally, acknowledging that 2e students have unique social-emotional needs and finding ways to help them navigate social situations in the school setting is critical for their long-term success (Reis et al., 2014). Beyond acknowledging their social-emotional needs, there are a number of strategies that

teachers can teach to 2e students to help mitigate feelings of anxiety, withdrawal, or negative attitudes towards school (Baldwin et al., 2015). Collaboration can help classroom teachers decipher between 2e students and gifted underachievers. The needs of 2e students can be best supported when special educators, gifted support personnel, and families exercise collaboration (Coleman & Gallagher, 2015). Considering a collaborative approach to meeting the unique needs and strengths of each 2e student can maximize their opportunities for success in the school environment.

References

Baldwin, L., Baum, S., Pereles, D., & Hughes, C. (2015). Twice-exceptional learners: The journey toward a shared vision. *Gifted Child Today, 38*(4), 206-214.

- Baldwin, L., Omdal, S. N., & Pereles, D. (2015). Beyond Stereotypes: Understanding, recognizing, and working with twice-exceptional learners. *Teaching Exceptional Children, 47*(4), 216-225.
- Barnard-Brak, L., Johnsen, S., Hannig, A., & Wei, T. (2015). The incidence of potentially gifted students within a special education population. *Roeper Review, 37*, 74-83.
- Baum, S. & Olenchak, R. (2002). The alphabet children: GT, ADHD, and more. *Exceptionality, 10*, 77-91.
- Baum, S., & Owen, S. (2004). *To be gifted and learning disabled: Strategies for helping bright students with LD, ADHD, and more*. Mansfield, CT: Creative Learning Press.
- Boyle, J. (2010). Strategic note-taking for middle-school students with learning disabilities in science classes. *Learning Disability Quarterly, 33*(2), 93-109.
- Coleman, M. R., & Gallagher, S. (2015). Meeting the needs of students with 2e: It takes a team. *Gifted Child Today, 38*(4), 252-254.
- Davis, G. A., & Rimm, S. B. (2003). *Education of the gifted and talented*. Englewood Cliffs, NJ: Prentice Hall.
- Ferguson, S.K. (2015). Affective Education: Addressing the Social and Emotional Needs of Gifted Students in the Classroom. In F.A. Karnes & S.M. Bean (Eds.), *Methods and Materials for Teaching the Gifted* (479-512). Waco, TX: Prufrock Press.
- King, E. W. (2005). Addressing the social and emotional needs of twice- exceptional students. *TEACHING Exceptional Children, 38*(1), 16-20.
- Lovecky, D. V. (2004). *Different minds: Gifted children with AD/HD, Asperger syndrome, and other learning deficits*. London: Jessica Kingsley.
- Missett, T., Azano, A., Callahan, C., & Landrum, K. (2016). The influence of teacher expectations about twice-exceptional students on the use of high quality gifted curriculum: A case study approach. *Exceptionality, 24*(1), 18-31.
- National Association for Gifted Children, (2013). *Ensuring gifted children with disabilities receive appropriate services: Call for comprehensive assessment*. Washington, DC: Author.
- National Education Association. (2006). *The twice-exceptional dilemma*. Washington, DC: Author.
- Nielsen, M. E. (2002). Gifted students with learning disabilities: Recommendations for identification and programming. *Exceptionality, 10*(2), 93-111
- Peterson, J.S. (2006). Addressing counseling needs of gifted students. *Professional School Counseling, 10*(1): 43-51.
- Reis, S. M., Baum, S. M., & Burke, E. (2014). An operational definition of twice-exceptional learners: Implications and applications. *Gifted Child Quarterly, 58*(3), 217-230.
- Reis, S.M. & Ruban, L. (2005). Services and programs for academically talented students with learning disabilities. *Theory Into Practice 44*(2), 148-159.
- Schroeder-Davis, S.J. (1999). Brains, brawn, or beauty: Adolescent attitudes towards three superlatives. *Journal of Secondary Gifted Education, 10*(3), 134-148.
- Snyder, T.D., de Brey, C., & Dillow, S.A. (2016). Digest of Education Statistics 2015 (NCES 2016-014). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. UDL Center. (2014). What is UDL. Retrieved from

- <http://www.udlcenter.org/aboutudl/whatisudl>
- U.S. Department of Education, Office of Special Education Programs. (2015). Individuals with Disabilities Education Act (IDEA) database. Retrieved from <http://www2.ed.gov/programs/osepidea/618-data/state-level-data-files/index.html#bcc>
- Wang, C. W., & Neihart, M. (2015). Academic self-concept and academic self-efficacy: Self-beliefs enable academic achievement of twice-exceptional students. *Roeper Review*, 37(2), 63-73.
- Willard-Holt, C., Weber, J., Morrison, K. L., & Horgan, J. (2013). Twice-exceptional learners' perspectives on effective learning strategies. *Gifted Child Quarterly*, 57(4), 247-262.
- Winebrenner, S. (2003). Teaching strategies for twice-exceptional students. *Intervention in School and Clinic*, 38(3), 131-137.
- Wormald, C., Rogers, K., & Vialle, W. (2015). A case study of giftedness and specific learning disabilities: Bridging the two exceptionalities. *Roeper Review*, 37, 124-138.
- Zirkel, P. A. (2016). Legal update of gifted education. *Journal for the Education of the Gifted*, 39(4), 315-337.