Research Articles and Essays

Who are Twice-Exceptional Students?

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Abstract

This paper explores twice-exceptional (2e) students, emphasizing neurodiversity. It discusses the concept, under-identification reasons, strengths, and needs of 2e individuals. Practical tips and resources are provided for educators and stakeholders interacting with 2e students, including students from diverse backgrounds (3e).

Keywords: twice-exceptional; neurodiversity; gifted and talented education

What is a 'Twice-Exceptional' Gifted Child?

Twice exceptional (2e) students are those who exhibit exceptional ability and disability, which results in a unique set of circumstances. Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized nor addressed. Additionally, twice-exceptional individuals come from — and are impacted by — socio-economic, individual, and cultural diversity (Council for Exceptional Children, 2020).

The Individuals with Disabilities in Education Act (IDEA) disability categories encompass a range of conditions, including autism, deaf-blindness, deafness, developmental delays, emotional disturbed, hearing impairments, intellectual disabilities, multiple disabilities, orthopedic impairments, other health impairments, traumatic brain injuries, specific learning disabilities, speech language impairments, and visual impairments (a Department of Education, 2018).

Neurodivergence, a term coined by Judy Singer in 1998, and can be found under autism, specific learning disabilities, and other health impairment in the IDEA disability categories. Singer (2017) defines neurodivergence as when someone's brain processes, learns, and/or behaves differently from that considered "typical." This means neurodivergent people may have different strengths and challenges from people whose brains don't have those differences. The possible differences include medical disorders, learning disabilities, and other conditions. The possible strengths include better memory, mentally picturing three-dimensional objects easily, solving complex mathematical calculations in their heads, and many more skills.

Why Focus on Neurodivergence?

Neurodivergence affects 15%-20% of the global population (Goulet, 2022), and it

encompasses the most prevalent and most promising disability types 2e students possess. Notably, neurodivergent traits can offer distinct advantages, such as heightened pattern recognition and analytical skills. For instance, dyslexic individuals excel in roles requiring big picture thinking and pattern recognition, as evident in their success in espionage and other fields (Griggs, 2021). However, despite their potential, many neurodivergent individuals face societal misconceptions and barriers to being recognized for their exceptional traits.

Why are They Under-Identified?

Some reasons for under-identification include that their exceptional characteristics often mask each other. Teachers often target areas that need support rather than focus on 2e students' need for advanced lessons. Below grade-level performance criteria may be too low to catch high-ability learners with disabilities. Misunderstanding by adults may lead to assumptions that students lack motivation or are lazy (Josephson et al., 2018; Pate & Betz, 2021).

What are 2e Individuals' Traits?

The 2e individuals exhibit a diverse array of traits and abilities, encompassing strengths and challenges across various domains. Key needs for 2e students include support in areas such as mathematics, reading, writing, concentration, and sensory processing (Differently Wired, 2017). Despite their disabilities, 2e students possess numerous strengths, including creativity, problem-solving, perseverance, and empathy (Baum et al., 2017). For example, gifted autistic individuals display strengths in sequencing, concentration, visual thinking, diverse imagination, and logical reasoning. Gifted students with attention deficit hyperactivity disorder (ADHD) often exhibit strong intuition, quick-wit, high-energy levels, empathy, and strong verbal skills. Gifted dyslexic students demonstrate strengths in spatial thinking, visual creativity, and non-linear thinking. Leveraging these strengths can form the

foundation for a strengths-based approach to education, emphasizing individualized support and nurturing students' unique abilities.

What Can Teachers Do for Diverse 2e & 3e students?

Educators play a vital role in supporting the diverse needs of 2e and 3e (i.e., 2e students from culturally and linguistically diverse backgrounds) students. Strategies include adopting a strengths-based approach, addressing social-emotional learning, and individualizing instruction to accommodate students' unique learning styles and preferences. Providing opportunities for student choice and autonomy, integrating technology, intentional grouping, providing counseling, and fostering inclusive classroom environments are also essential (Mulvahill, 2022; Skolnick, 2021). Additionally, educators should consider cultural preferences in teaching and assessment methods and provide flexibility in learning pace and assessments to effectively meet the needs of diverse learners (Bevan-Brown, 2005).

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