

Mini Review

A Strength-based Approach to Achieving Academic Success for Individuals with Autism Spectrum Disorder (ASD)

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Abstract

Qualitative research enabled us to explore the personal perceptions and institutional factors that facilitated academic success, as well as challenges, of a sample of 40 academically talented students with autism spectrum disorder (2e/ASD) who were enrolled in highly competitive colleges and universities in the United States. We explored their high school academic and social experiences, their college transition, parental views of their talents and disabilities, as well as college service providers' opinions about their academic progress and needs. We identified some specific strength-based teaching and instructional strategies and academic experiences that students reported as contributing to their academic success during high school including challenging and advanced classes, use of strengths-based learning strategies (like independent study, and positive relationships with teachers and counselors). We also found that the level of disability support offered by the college was an important consideration for the academic success of this population, as was an understanding of the laws and regulations that apply and don't apply when students with disabilities attend college.

An increasing number of educators, psychologists, and parents are aware that some students with ASD also demonstrate advanced cognitive abilities [1,2]. Students identified with both ASD and giftedness are labeled twice exceptional (2e), a term used to identify individuals who are identified as both gifted and with one or more disabilities [3]. Some previous research has found that 2e students with ASD (2eASD) do not receive the necessary educational support to succeed in school [4]. Unfortunately, individuals with ASD are less likely to attend postsecondary education than those with other types of disabilities and the general population, and those who do attend experience both academic and non-academic difficulties and challenges [5]. Further, older students and adults with ASD often report important social and mental health challenges such as depression, anxiety, and pervasive loneliness [6,7], negatively affecting their success in college and employment settings.

Currently, limited research focuses on which successful teaching practices, learning strategies, and academic experiences also help 2eASD students achieve and thrive in school [3]. According to some preliminary suggestions [3],

effective teaching strategies for this population should focus on finding a balance between fostering and developing students' academic strengths and interests and enabling them to compensate for the learning difficulties that accompany their disabilities. It is important for educators and psychologists who work with students with ASD to understand that some do have academic strengths that can help them achieve and even excel in academic settings. Our research has examined the strategies and activities that enable this group of students to succeed in high school and prepare for competitive colleges. We found that academic success is possible with high expectations and careful educational planning that relies on strength-based approaches.

In recent research that identifies specific evidence-based strategies contributing to academic success during high school, we [8] conducted interviews with 40 students who identified as 2eASD. These young people had high grades in high school, strong SAT scores, and had been accepted or matriculated at competitive and very competitive colleges and universities, including Ivy League institutions. Our results identified five specific strength-based teaching and instructional

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Submitted: January 22, 2024

Approved: February 13, 2024

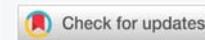
Published: February 14, 2024

How to cite this article: Reis SM, Gelbar N, Madaus J. A Strength-based Approach to Achieving Academic Success for Individuals with Autism Spectrum Disorder (ASD). *J Neurosci Neurol Disord.* 2024; 8: 010-011.

DOI: 10.29328/journal.jnnd.1001090

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Keywords: Twice-exceptionality; Competitive colleges; College students with ASD; High school success for 2e students; Postsecondary academic success





strategies and academic experiences that students reported as contributing to their academic success during high school: dual identification as 2e and academically gifted, interest-based extracurricular activities, challenging and advanced classes, use of strengths-based learning strategies (like independent study, and positive relationships with teachers and counselors).

In addition to this study, we also conducted research with two other groups, including a subset of the parents of the group of students attending college, as well as a group of college disability service providers [9]. A range of factors and strategies were identified as valuable in the transition to and success in competitive colleges for this population. The level of disability support offered by the college was an important consideration, as some colleges offer extensive support while others offer minimal help. The importance of understanding the laws and regulations that apply and don't apply when students with disabilities attend college was also found to be important.

Madaus, et al. [10] also conducted research about these students identified as 2eASD enrolled in highly competitive colleges and universities. The majority acknowledged that they had excellent reading and writing skills, but some struggled with mathematics. This research also identified the personal trait that most enabled these students to be successful in college, described by 26 of the 40 students, was a driving passion for learning. Half of the participants were motivated to succeed academically by the independence college offers, as well as the flexibility to take advantage of a range of opportunities, and the development of their personal autonomy. The majority of the participants indicated that faculty members' instructional practices in college were their greatest barriers to learning.

Conclusion

In conclusion, intelligent students with ASD deserve the right to attend competitive colleges and prepare for these colleges and the subsequent careers they choose in which they can apply their talents and interests. Many of them have the same hopes and dreams as academically talented students without disabilities and many more can succeed if they are given appropriate support and programs. Accordingly, they need to understand how to develop their talents, become independent and self-directed, and what they need to do to succeed. To do this, specific talent development opportunities, such as those discussed above, should be provided and the transition experiences of these students should be carefully planned. College planning should include understanding that

competitive college classes place certain demands on students and that study skills and self-advocacy to prepare for these classes should be experienced and learned in high school.

Funding

The research was funded by the U.S. Department of Education, Javits Gifted and Talented Students Education Grant Program (Grant Number: S206A190023). Materials and opinions expressed herein do not necessarily represent the Department of Education's position or policy.

References

1. Charman T, Pickles A, Simonoff E, Chandler S, Loucas T, Baird G. IQ in children with autism spectrum disorders: data from the Special Needs and Autism Project (SNAP). *Psychol Med*. 2011 Mar;41(3):619-27. doi: 10.1017/S0033291710000991. PMID: 21272389.
2. Gelba NW, Cascio AA, Madaus JW, Reis SM. A systematic review of the research on gifted individuals with autism spectrum disorder. *Gifted Child Quarterly*. 66(4): 266–276. <https://doi.org/10.1177/00169862211061876>
3. Reis SM, Baum SM, Burke E. An operational definition of twice-exceptional learners: Implications and applications. *Gifted Child Quarterly*. 2014; 58(3): 217–230. <https://doi.org/10.1177/0016986214534976>
4. Cain M, Kaboski J, Gilger J. Profiles and academic trajectories of cognitively gifted children with autism spectrum disorder. *Autism: The International Journal of Research and Practice*. 2019; 23(7): 1663–1674. <https://doi.org/10.1177/1362361318804019>
5. Gelbar NW, Shefyck A, Reichow B. A comprehensive survey of current and former college students with autism spectrum disorders. *Yale J Biol Med*. 2015 Mar 4;88(1):45-68. PMID: 25745374; PMCID: PMC4345538.
6. Billstedt E, Gillberg C, Gillberg C. Autism after adolescence: Population-based 13- to 22-year follow-up study of 120 individuals with autism diagnosed in childhood. *Journal of Autism and Developmental Disorders*. 2005; 35(3): 351-360. <https://doi.org/10.1007/s10803-005-3302-5>
7. Howlin P, Goode S, Hutton J, Rutter M. Adult outcome for children with autism. *J Child Psychol Psychiatry*. 2004 Feb;45(2):212-29. doi: 10.1111/j.1469-7610.2004.00215.x. PMID: 14982237.
8. Reis SM, Gelbar NW, Madaus JW. Understanding the Academic Success of Academically Talented College Students with Autism Spectrum Disorders. *J Autism Dev Disord*. 2022 Oct;52(10):4426-4439. doi: 10.1007/s10803-021-05290-4. Epub 2021 Oct 21. PMID: 34676485; PMCID: PMC9508198.
9. Madaus J, Cascio A, Delgado J, Gelbar N, Reis S, Tarconish E. Improving the transition to college for 2eASD students: Perspectives from college service providers. *Career Development and Transition for Exceptional Individuals*. 2022. <https://doi.org/10.1177/21651434221091230>
10. Madaus J, Reis S, Gelbar N, Delgado J, Cascio A. Perceptions of factors that facilitate and impede learning among twice-exceptional college students with autism spectrum disorder. *Neurobiol Learn Mem*. 2022 Sep;193:107627. doi: 10.1016/j.nlm.2022.107627. Epub 2022 May 14. PMID: 35580740.