Helping Twice Exceptional Students with Autism Succeed Academically: A Free Online Video Professional Development Module

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Background

- Increasing numbers of students with autism spectrum disorder (ASD) are applying to and attending college (Ashbaugh et al., 2017)
- A subset of these students have advanced cognitive abilities including academic gifts and talents (Charman et al., 2011)
- Students identified with both ASD and giftedness are often labeled twice exceptional (2e), a term for individuals who are identified as both gifted and with one or more disabilities (Reis et al., 2014)
- 2e students with ASD (2eASD) may not be receiving the necessary educational support to succeed in high school and to be prepared for college (Cain et al., 2019) because:
  - Talents overshadow disabilities
  - Disabilities mask talents
Project Twice Exceptional with Autism Spectrum Disorder (2E-ASD)


Project 2E-ASD focuses on how to identify and teach academically talented and high ability high school students with ASD.
Four Studies

- Study 1: Interviews with 2eASD students \((n=40)\)
- Study 2: Interviews with parents of 2eASD college students \((n=10)\)
- Study 3: Interviews with college service providers \((n=10)\)
- Study 4: Interviews with high school teachers/counselors \((n=20)\)
Four Studies - Methodology Overview

• Goal was to examine perceptions of key stakeholders regarding PSE transition
• Each used a semi-structured interview protocol
  • Similar across most studies but modified for each particular group
  • Strengths-based to focus on strengths and talents of the students
• All but one PSE based interview was conducted one-on-one
  • One PSE service provider interview had two professionals
• Secondary teacher and counselor interviews conducted with two interviewers
• Some student interviews were F2F; others by phone (result of the pandemic)
• All other interviews conducted by phone or video conferencing
• The PSE students and professionals were all drawn from 4-year institutions in the Northeast; all are ranked very- to most-competitive (USNWR)
• High school teachers and counselors were from schools in the northeast US
• Interviews lasted 13 minutes to over 60 minutes
Four Studies – Methodology Overview

• Each interview was recorded and transcribed
• Member checks of transcriptions and themes offered; provided by
  • 3 students
  • 1 parent
  • 1 PSE professional
• Analysis using directed content analysis (Elo & Kyngäs, 2007)
• Codes identified before and during data analysis
• New themes allowed to emerge
• Two reviewers/coders for each transcript
• Similar protocol and analysis techniques allowed for cross walk of results
Study 1: Interviews with 2eASD students (n=40)

- Recruited from disability/accessibility services offices at 5 PSEs in NE
- Each was currently enrolled in or recently completed PSE
- Had previous ASD diagnosis and was receiving PSE services
- Had school-based evidence of academic talents
  - e.g., honors/advanced/accelerated courses, gifted program, college courses while in high school
- Gave informed consent
- Provided with a $20 gift card
Study 1: Interviews with 2eASD students (n=40)

- Gender
  - Male: 67.5%
  - Female: 22.5%
  - Non-binary or transgender: 10.0%

- Year in College
  - First year: 22.5%
  - Sophomore: 12.5%
  - Junior: 20.0%
  - Senior: 15.0%
  - Between two years: 20.0%
  - Graduate Student: 10.0%
Study 1: Interviews with 2eASD students (n=40)

- **Type of high school**
  - Public: 75%
  - Independent or specialized school: 25%

- **High School GPA**
  - 3.5 - 4.0: 62.5%
  - 3.0– 3.4: 20.0%

- **SAT Mean**: 1320 (range 1200-1500)
- **ACT Mean**: 26 (range 18-32)

- **Participation in**
  - Sports/Clubs: 90.0%
  - Advanced courses: 72.5%
  - Gifted education programs: 53%
  - Residential programs (e.g. camps): 50.0%
Study 1: Key Findings

- A majority of our participants ($n=21$; $53\%$) indicated that they were identified as academically talented AND received enrichment and/or talent development opportunities.

- Almost three quarters of participants had taken AP or honors courses (or courses in which they could earn college credit) while in high school ($n=29$, $73\%$).

- 90% of the sample ($n=36$) had participated in at least one extracurricular activity in high school and 50% ($n=20$) had participated in at least one overnight experience.
Study 1: Key Findings

- Participants indicated that having self-awareness, self-advocacy, and time management/organization skills were essential to their success in college.

- When faced with challenges, difficulties, or adverse conditions, rather than give up, these participants found a reasonable path for success, figured out how to compensate for their disabilities, and/or took a new direction to achieve success.

- Seventeen participants (43%) indicated that they attended a community college, smaller regional campus, or another college (usually closer to home and smaller) before transferring to their current/final college.
“I had an amazing teacher who gave me opportunities to participate in projects. One of my mentors was a science teacher and she also gave me advanced opportunities. She gave me so many chances for advanced work. She let me apply science to the real world and to me, that was beautiful. She gave me the confidence to know that I could go beyond and to extra work.”

“There were so many people that believed in me and gave me advanced courses and advanced independent projects. They gave me time to write short stories. They let me explore my strengths and interests. They nurtured me—they gave me a fluid opportunity. Many public schools are like conveyer belts, but my school was like the elevator in Charlie and the Chocolate Factory.”
“Robotics team—I loved that as I struggled a lot socially growing up but in robotics, I liked having a team. It made me feel good about myself… I was part of the women’s science club. I founded a girls who code club. I was a math tutor. I’m a STEM nerd.”

“Tennis, documentary film, senator for senior year, mock trial, band, and choir. Every year we make a film for a competition, there’s a topic, we made one about education declining as, there are funding problems in my town. I did it for two years.”
Study 3 – Semi-Structured Interviews with 11 Service Providers

Importance of:
• “Touch points” or contacts with an advocate or mentor on campus
• Being able to navigate the variety of campus services and resources (including what, where, and when)
• Early contact; Summer orientation programs, generalized and specialized
• Navigating social interactions and environments (e.g., in residence and dining halls, classes, labs, group projects)
• Involvement in clubs or other socially based activities
• Being proactive in communicating with faculty
• Understanding how to differentiate socially depending on the situation
Study 3 – Semi-Structured Interviews with 11 Service Providers

Importance of:

• Self-determination/self-advocacy skills (most commonly noted skill)
• Motivation, especially in courses outside of interest areas
• Executive function (including learning/study strategies and time management; understanding projects and expectations)
• Listening to student and not projecting values/expectations onto them
• Families and K-12 schools understanding differences in laws and services
• Families and K-12 schools promoting student independence
Commonalities Across the Studies

- The importance of a dedicated contact person on campus:
  - To help with early planning
  - To help troubleshoot various situations
  - Mentors (peers, professional)
- The importance of strong supports within the K-12 school/ PSE institution
  - Disability related
  - General supports (e.g., tutors, writing & math centers)
  - Teachers, professors
- The importance of social skills
  - Interactions with peers related to areas of interest
  - Extracurricular activities/clubs related to areas of interest
Commonalities Across the Studies

• The importance of self-management skills:
  • Personal organization and time management
  • Planning ahead
  • Breaking down larger and long-range tasks into smaller parts
  • Setting and holding to personal schedules

• The role of motivation:
  • Heightened when students can focus on areas related to interests
  • Allows students to work for extend periods of time
  • Allows students to excel and flourish academically and personally
  • Interests can in turn guide the student’s education and connections
  • Grit and perseverance to get through requirements outside of interest area

• The importance of mental health:
  • Isolation, loneliness, need to decompress
  • Many students had strategies (e.g., exercise, mediation, quiet time)
Commonalities Across the Studies

• Promote student reflection on:
  • Supports received in high school
  • The nature of their disability and strengths and needs
  • Practice disclosure and requesting accommodations

• Provide opportunities to:
  • Practice social skills
  • Practice independent living skills (e.g., money, dietary, medications, hygiene)
Limitations

- Small sample sizes; generalizability
- Focus on 2eASD students only at very competitive to most competitive institutions
- Potential researcher bias
- Potentially socially desirable responses
- Addressed by:
  - Member checks of transcripts and final themes
  - Multiple coders and checks
  - Awareness of researcher positionality
The Professional Learning Video Module Series

• Informed by the research studies, primally Studies 1 and 3
• Five parts:
  • Part 1: Introduction (6:42)
  • Part 2: School Experiences Prior to College (12:44)
  • Part 3: Preparing for Academic Success (13:35)
  • Part 4: Navigating College Life (13:43)
  • Part 5: Summary (6:15)
• Currently in final editing, closed captioning
• Will be available free of charge at https://giftedasd.project.uconn.edu/
Acknowledgements

• Funding for the student interviews and the service provider interviews was provided by the United States Department of Education, Jacob K. Javits Gifted and Talented Students Education Program
• Funding for the parent interview project was provided by the Neag Foundation, Wyomissing, PA
• Thanks to:
  Quinn Austermann, Ph.D.          Lisa M. Muller
  Alexandra Cascio, Ph.D.          Susan Baum, Ph.D.
  Julie Delgado, M.A.              Susan Carrol, Ph.D.
  Christopher Esposito, M.A.
  Shannon Langdon, M.A.
  Emily Tarconish, Ph.D.
Published Studies


For more information, project updates, and the video module, please see: https://giftedasd.project.uconn.edu/

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Thank you!