

Quieting the Naysayers: Higher Education for Students with Learning differences

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Learner Outcomes

- Attendees will be able to
 - describe how the definition of neurodivergence has grown in recent years to include several communication and learning disorders.
 - identify barriers to success that students with learning differences encounter in higher education.
 - describe factors that lead to successful completion of higher education for which students can be prepared at the high school level.

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Takeaways

- For every student with a learning difference who has self-disclosed their need for accommodations, another student with a learning difference most likely has not.
- Teaching students techniques in self-disclosure, social awareness, and time management while in high school may smooth transition to the higher education environment.
- Providing an inclusive learning environment at the higher education level that promotes ease of applying for accommodations, willingness for parental and peer support, and consistency in the delivery of instruction may serve students who do not self-disclose as well as those who do.

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Your first task

- On the next slide are a list of words in different colors. Your task is to say the COLOR of the word, not read the word itself.
- And...go.

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YELLOW BLUE ORANGE
 BLACK RED GREEN
 PURPLE YELLOW RED
 ORANGE GREEN BLACK
 BLUE RED PURPLE
 GREEN BLUE ORANGE

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A few questions



How long did that take?



Was that difficult?



Why?

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About me



- Associate Professor of Speech-Language Pathology
- Clinic Director, John A. Morris Speech and Language Clinic
- PEERS Social Skills Trainer
- First-Year Seminar Instructor
- BUT before this, I was a
 - School-based speech-language pathologist spending most of her time with adolescent language disorders



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Try this

- Find a blank piece of paper and put it in front of you.
- Place your writing utensil in your non-dominant hand.
- Listen carefully to the sentences I say and write them down on the paper as accurately as you can.

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Now for your reactions

- How did it feel to write these sentences?
- Did you stop writing? When? Why?
- What do we as teachers do when we see the reaction you gave in a student in our classroom?
- What could I have done to assist you?
- What about the hand you used? The hand you didn't use?
- What about the paper?

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Neurodiversity

- The idea that everyone's brain works differently from others, and that there is not one way to think, learn, or behave; in this way differences are not deficits. (Baumer and Frueh, 2021)
- Most often associated with autism spectrum disorder
- Also associated in the literature: attention deficit/hyperactivity disorder, dyslexia, dyscalculia, dyspraxia, Tourette Syndrome, developmental language disorder, and developmental co-ordination disorder. (Chryschoou et al., 2022; Clouder et al., 2020; Dwyer et al., 2023; Hamilton & Petty, 2023; Sandland et al., 2023)
- IOW: learning differences

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Some specific diagnoses seen in college

- Learning disabilities refer to a group of disorders rooted in academics in which a student has difficulty grasping and comprehending despite average to above average intelligence.
- Auditory Processing Disorder – a mismatch between what your ear hears and your brain registers.
- Dyscalculia – inability to understand and process numbers and math symbols
- Dysgraphia – inability to produce meaningful handwriting

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More specific diagnoses

- Dyslexia – inability to read fluently or comprehend information that is read
- Language processing disorder – an inability to process language that is heard, so therefore language spoken is less than effective
- Non-verbal learning disorder – high verbal abilities coupled with fine and gross motor issues.
- Couple any with ADHD, dyspraxia (inability to control voluntary muscle movement), and executive function issues, and learning abilities are greatly diminished.

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Students with learning differences are in our university classrooms

- In 2015, students who were diagnosed with a learning disability entered college at a rate of 60.9% to the neurotypical child's percentage at 62.1% (Farmer et al., 2015).
- That same year, 36% of students with autism enter higher education of some kind (Roux et al. 2015, as cited by Watson et al., 2021).
- Farmer (2015) found that of those who start a program, however, only 37.5%, compared to 51.5% of neurotypicals, may actually complete their program.
- Clark et al. (2021) reported that 56% of neurodivergent students achieved degree completion which was comparable to 53% of neurotypical students.

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College students with learning difference

- Most common issue is reading comprehension.
(Hollins & Foley, 2013; Zingoni et al. 2021)
- They might have comorbid diagnoses involving emotional dysfunction or attention disorders.
(Lightfoot et al., 2009; Chrysochoou et al., 2022)
- They have difficulties managing time.
(Jorgenson et al., 2018; Dumitru et al., 2024)
- Difficulties accessing online environments are common.
(Hollins & Foley, 2013; Lambert & Dryer, 2017)
- They didn't receive adequate transition planning in high school.
(Dumitru et al., 2024)
- They might not apply for accommodations.
(Dwyer et al., 2023; Clouder et al., 2020)

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The college students' perceptions

- Barriers to higher education
 - Lack of adjustments made by faculty in information delivery and materials availability
 - Changes made last minute (Irvine & Macleod, 2022)
 - Applying for accommodations (Dwyer et al., 2021)
- Challenges
 - Social networking due to social anxiety and awkwardness
 - Determining what to do with unstructured time
 - Expectations versus reality of being on campus (Irvine & Macleod, 2022)

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Factors that lead to success

- An inclusive and supportive culture
 - Tutors, specialists, friendships, and parents' support
 - Respecting values of the student
 - Parents allowing student to figure things out on their own
 - Peers who considered them valuable on campus
- "The unfolding of the self"
 - Starting new
 - Finding a sense of belonging on campus
 - Figuring out things on one's own
 - Owning the diagnosis (leading to self-advocacy, self-determination)

(Irvine and MacLeod, 2022)

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Why is coursework tedious and exhausting?

- Difficulties with
 - Reading
 - Text comprehension
 - Understanding uncommon words
 - Concentration when studying, during in-class and when online
 - Verbal short-term or long-term memory
 - Study scheduling
 - Note-taking
 - Enough time to study for exams

(Zingoni et al., 2021)

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How can we meet the challenges?

- Academic assistance
 - Office of Accessible Education, Student Success Center, peer tutors, notetakers
- Neill-Wint Center for Neurodiversity (NWC)
 - Academic check-ins, social engagement, social skills, social coaches who are their peers
- First-Year Seminar
 - Degree planning, time management, study skills, engagement with peers
- Small size leads to camaraderie with peers and faculty
 - Student organizations, both departmental and student-formed
- Student Life
 - Calender published weekly through email with events detailed
- Mental Health Counselor – full time

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Practices that reportedly help

- Identifying study techniques that work for the individual
- Personal tutoring
- Innovative teaching and learning methods
- Self-assessment skills
- Assessment accommodations
- Time management
- Reducing writing tasks
- E-course notes
- Planning tools

(Dumitru et al., 2024)

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Assuming I have students who have not identified as neurodivergent, how do I teach differently?

- Ask questions to ascertain the level of connectivity to online programming (Canvas, Onelogin, Self-service)
- Never assume important information is known because it was in an email.
- Explain unwritten rules.
- Make tutorials in your system's recording application (Studio)
- Use Online LMS in consistent ways.
 - Weekly announcements
 - Calendar
 - Assignment uploads
 - Module formation with clear direction

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More strategies to consider

- Record sessions because material covered will need to be heard twice by some students.
- Provide activity-based learning that occurs during class sessions so that students can ask questions and better understand material.
- Arrange assignments that build on each other and remind students how they build on each other.
- Demonstrate procedures to the end-product so they know what they are working toward.
- Give weekly quizzes to break material into easier chunks of learning.
- Change the test, not the date.
- Share your time management and study strategies.

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Before higher education, teach

- Self-determination and how to self-disclose
- Time management
- Maneuvering the online learning management system, email, and assignments
- Academic support systems (graphic organizers, cloze activities, peer tutoring)
- Social skills that speak to addressing authority, professors, and security officers.
- How to enjoy being a part of creative opportunities (theatre, student organizations)

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In the end, we know that

- Students of neurodivergence are attending higher education and persisting until graduation.
- Their success is dependent on their preparation and our acceptance of accessibility for all.
- Preparing students for higher education means teaching them in areas such as time management, self-advocacy, and social awareness.
- Faculty's ability to help them be successful will depend on their willingness to work the accommodations and make courses accessible.



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Thank you for listening

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