Neurodiversity In the Classroom

CoS TEAM Teaching Event

What Is Neurodiversity?

- Umbrella term including:[1]
  - Dyspraxia (affects movement and coordination)
  - Dyslexia (affects reading and writing abilities)
  - Attention deficit hyperactivity disorder
  - Dyscalculia (affects the ability to understand number-based information and math)
  - Autism spectrum
  - Tourette syndrome

- *"Describes a natural variation of the human brain rather than a deficiency."*[2]

What Is Neurodiversity?

"Neurodiversity is a tool of inclusion, so it includes broad personal experiences such as diagnoses of ADHD, psychiatric diagnoses like anxiety, depression or bipolar disorder, as well as language disorders."

Heather Stelljes, access consultant for the University of Wisconsin–Madison's McBurney Disability Resource Center[3]

Language Matters

- A community can exhibit neurodiversity. An individual may be ***neurodivergent,*** a nonmedical term that can be described as "people whose brains develop or work differently due to medical disorders, learning disabilities, or other conditions."[3]

- ~~Autism spectrum disorder~~

  - Disfavored due to the indication that neurodivergence is disordered or abnormal

- Autistic person vs. person with autism

Accommodations for Neurodivergent Students

- Many neurodivergent student qualify for academic accommodations such as:
  - Extended time on exams
  - Provision of lecture materials before class
  - Use of adaptive technologies
  - Ability to type (rather than hand-write) responses
- Just because students qualify for academic accommodations does not mean they register for or use them.
  - ***What barriers exist that prevent students from making use?***

Focus On Creating Student-Friendly Classrooms[3]

Megan Reilly, assistant professor of lighting design; UW-Madison School of Education's Department of Theatre and Drama:

1. Load class syllabus, schedule, due dates, and resources into [Canvas] by the first day of class so students have everything they need and can focus on learning

2. Explain why it's important to show up to class but allow students the flexibility to come and go as needed

3. Set working agreements with each class at the beginning of the semester to agree on acceptable behavior, flexibility in communicating, and how they want to show up

4. Encourage students to build relationships with one another

5. Pay attention to students who are quiet to ensure they have opportunities to share (easier to do in smaller classes)

6. Incorporate games into classes

7. Sharing with class [her] own autism diagnosis

Focus On Communication[4]

UC Davis's Center for Educational Effectiveness ran an excellent, student-led workshop for TA's titled *Accessibility and Inclusion in Teaching: Perspectives of Autistic and Neurodivergent Students*

1. Clear, direct communication is best
2. Be prepared to deal with a "literal" interpretation of communication(e.g. sarcasm, questions on an assignment or test)
3. Be prepared to provide context for jokes, expressions, and idioms
4. Don't use patronizing language or talk down to students
5. Give time for processing information
6. Indicate firm due dates when possible
7. Expect to be very explicit about when and how student collaboration is allowed
8. Include a section in syllabi concerning disability accommodations

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9. Reduce pressure to communicate or participate in uncomfortable situations

10. Respect accommodation requests for alternative forms of communication

11. Allow for technology use in discussion or laboratory sessions; many disabled people need technology to learn or communicate

12. Avoid subjective grading (e.g. high pass or low pass)

13. Consider the implications of [neurodivergent] challenges when planning or grading group work and presentations

14. Avoid changes in routine if possible [because] unpredictability can lead to anxiety

Universal Design for Learning[4]

"…a framework developed…to improve and optimize teaching and learning for all people based on scientific insights into how humans learn."

GOAL: "…learner agency that is purposeful & reflective, resourceful & authentic, strategic & action oriented."

"The guidelines offer a set of concrete suggestions that can be applied to any discipline or domain to ensure that all learners can access and participate in meaningful, challenging learning opportunities."

Universal Design for Learning Guidelines

The goal of UDL is **learner agency** that is purposeful & reflective, resourceful & authentic, strategic & action-oriented.

Design Multiple Means of **Engagement** ➡

Design Multiple Means of **Representation** ➡

Design Multiple Means of **Action & Expression** ➡

Access

Design Options for Welcoming Interests & Identities (7) ➡

- Optimize choice and autonomy (7.1) ›
- Optimize relevance, value, and authenticity (7.2) ›
- Nurture joy and play (7.3) ›
- Address biases, threats, and distractions (7.4) ›

Design Options for Perception (1) ➡

- Support opportunities to customize the display of information (1.1) ›
- Support multiple ways to perceive information (1.2) ›
- Represent a diversity of perspectives and identities in authentic ways (1.3) ›

Design Options for Interaction (4) ➡

- Vary and honor the methods for response, navigation, and movement (4.1) ›
- Optimize access to accessible materials and assistive and accessible technologies and tools (4.2) ›

Support

Design Options for Sustaining Effort & Persistence (8) ➡

- Clarify the meaning and purpose of goals (8.1) ›
- Optimize challenge and support (8.2) ›
- Foster collaboration, interdependence, and collective learning (8.3) ›
- Foster belonging and community (8.4) ›
- Offer action-oriented feedback (8.5) ›

Design Options for Language & Symbols (2) ➡

- Clarify vocabulary, symbols, and language structures (2.1) ›
- Support decoding of text, mathematical notation, and symbols (2.2) ›
- Cultivate understanding and respect across languages and dialects (2.3) ›
- Address biases in the use of language and symbols (2.4) ›
- Illustrate through multiple media (2.5) ›

Design Options for Expression & Communication (5) ➡

- Use multiple media for communication (5.1) ›
- Use multiple tools for construction, composition, and creativity (5.2) ›
- Build fluencies with graduated support for practice and performance (5.3) ›
- Address biases related to modes of expression and communication (5.4) ›

Executive Function

Design Options for Emotional Capacity (9) ➡

- Recognize expectations, beliefs, and motivations (9.1) ›
- Develop awareness of self and others (9.2) ›
- Promote individual and collective reflection (9.3) ›
- Cultivate empathy and restorative practices (9.4) ›

Design Options for Building Knowledge (3) ➡

- Connect prior knowledge to new learning (3.1) ›
- Highlight and explore patterns, critical features, big ideas, and relationships (3.2) ›
- Cultivate multiple ways of knowing and making meaning (3.3) ›
- Maximize transfer and generalization (3.4) ›

Design Options for Strategy Development (6) ➡

- Set meaningful goals (6.1) ›
- Anticipate and plan for challenges (6.2) ›
- Organize information and resources (6.3) ›
- Enhance capacity for monitoring progress (6.4) ›
- Challenge exclusionary practices (6.5) ›

References

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3. Cleveland Clinic (2025): https://my.clevelandclinic.org/health/symptoms/23154-neurodivergent as cited in Schaefer, J. and Sanchez, A. "Shining light on neurodiversity in higher ed." University of Wisconson-Madison School of Education (15 March 2024): https://education.wisc.edu/news/shining-a-light-on-neurodiversity-in-higher-ed/

4. https://video.ucdavis.edu/media/Graduate+Student+Workshop-Accessibility+and+Inclusion+in+TeachingA+Perspectives+of+Autistic+and+Neurodivergent+Students/1_hkuea1d7

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