Strategies to Support Neurodivergent Students

Neurodivergent students may experience and exhibit differences in learning and behavior, particularly in the areas of executive functioning, sensory processing, and communication. This guide defines the terms neurodiversity and neurodivergent and provides teaching and learning examples and recommendations to support student success.

What is neurodivergent?

- **Neurodiversity** refers to the normal variation in how people think, learn and process information and the uniqueness of human minds.
- **Neurodivergent** may describe those whose neurocognitive function diverges from dominant societal standards in executive functioning, sensory processing, and communication. Neurodivergent terminology may describe a person diagnosed with autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), dyslexia, Tourette's syndrome, or other learning differences.

Supporting neurodivergent students

- Neurodivergence may affect how students participate, communicate, learn, socialize, and process emotion in the classroom. Although each student has unique strengths, needs, characteristics, and behaviors, utilizing course strategies to support students' executive functioning, sensory processing, and communication needs will create an accessible and inclusive academic environment for all students.
- Student Accessibility Services (SAS) at Iowa State University reports that neurodivergent students represent 38% of those approved to use accommodations (n=1,881) in 2021. Contact SAS via email at accessibility@iastate.edu, phone at 515-294-7220, or website https://sas.dso.iastate.edu/.
- For further ideas to support our students' diverse needs, including neurodivergent students, visit CELT's Strategies for accessible teaching and learning page (https://bit.ly/strats-accessible).

Table of Contents

Executive functioning strategies 2
Participation 2
Course planning and structure 2
Sensory processing strategies 3
Logistics and planning 3
Communication strategies 3
Supportive peer interactions 3
Asking for support and campus resources 4

Executive functioning strategies

Neurodivergent students may experience difficulty with executive functioning such as time management, organization, planning, initiating, persisting at a task, and emotional/impulse control.

Participation

Neurodivergent students tend to thrive when given very clear, specific instructions about course components (e.g., participation).

Course Example

A neurodivergent student may avoid participation in whole class discussions and your course syllabus indicates that class participation comprises five percent of the total grade.

Inclusive Syllabus Recommendations

Determine what qualifies as course participation and include details on the course syllabus:

- Ask questions and participate in small group discussions.
- Stay after class to ask questions or attend student office hours.
- Ask questions or respond via email or discussion boards.

For ideas, consult the develop your participation skill guide (https://bit.ly/celt-participate).

Course planning and structure

Punctuality, schedules, and routines can be key aspects of stability for all students, especially neurodivergent students. While many students might not mind staying 1-2 minutes past class time, this can cause stress for some students who rely on routine.

Course Example

Your class occasionally runs overtime by 3-4 minutes, and you use the final minutes to provide quick announcements related to student office hours, course requirements, etc.

Inclusive Recommendations

- Provide a clear time structure to the class. Set an alarm 2-minutes before the end of class and wraps up all important material and announcements in the last two minutes.
- Ensure all essential topics are covered within the class time and that anything overtime is clearly stated as optional. Should members of the class be interested in staying overtime to finish a topic (e.g., a proof that is almost done, make it clear that it is okay to leave on time, "I will review anything done overtime at the beginning of the next class as well."
- Add quick announcements to Canvas to offer both auditory and written information.

Sensory processing strategies

Neurodivergent students may be sensitive to sensory input (light, sound, etc.) or need to move i during class time to meet their physical and psychological needs. Classrooms and lecture theatres can be very overstimulating and socially overwhelming. Be aware that fluorescent, overhead lighting, noisy conversations, and group dynamics can present sensory challenges.

Logistics and planning

Some individuals have brain structure differences that affect the way sensory information is processed. Additionally, many neurodivergent students like to fidget (called "stimming"). While this may be interpreted as the student not paying attention, it usually helps students stay calm and focus clearly on the material.

Course Example

A neurodivergent student in your class has a sensory processing disorder. You show an educational video that starts at a quiet volume, then suddenly cuts to footage involving loud sirens and crashing noises. The sound is overwhelming for the student, and spends the rest of the class distressed, fidgeting, and appears unable to focus.

Inclusive Recommendations

- Consider openly stating (and including a sentence in your syllabus) that movement is okay in class, and students may leave the classroom if they have unanticipated reason..
- Provide a warning if class materials involve a sudden or loud sound or sudden bright/flashing lights. (i.e., "This video has a loud noise at about the 7-minute mark. If anyone needs to step out of the room around then, that's perfectly fine.") or soften the volume around the time mark.
- If the current seating arrangement or physical space doesn't allow students to easily step out, consider adding a couple of chairs right by the door or the back row of a lecture hall.

Communication strategies

Typical elements of conversation and communication can be challenging for neurodivergent individuals. They may interrupt, speak too quickly, miss key elements, have difficulty processing information, or feel insecure about what they say.

Supportive peer interactions

Peer and group work interactions can be stressful for a neurodivergent student – in fact, some students will not take a course based on the amount of group work required. If possible, let students know if there is an expectation for impromptu group work and on-the-spot classroom participation.

Purpose

Many students do well when it is clear what to expect in class and when they know what is expected of them socially, which is especially true for a neurodivergent student. Asking students to form groups can be quite stressful. Students might wonder:

- What if no one wants me in their group? (This can be particularly stressful for Neurodivergent student, who have often experienced some amount of social isolation in their life.)

- How do I ask others to join their group? (For students with social anxiety, being expected to form groups on the spot can be stressful.)

Course Example

Your class primarily consists of traditional lectures while students take notes. Occasionally, you like to add variety by spontaneously incorporating think-pair-share activities. A student in the class has large amounts of anxiety and dreads the uncertainty of not knowing when group work will suddenly be expected. She spends a lot of energy in class worrying about whether today will be a groupwork day and isn't able to focus well on the material.

Inclusive Recommendations

- Give students time to prepare for social interaction. At the beginning of class (or prior) provide a short synopsis of how class time will be structured. Let students know if they will be expected to engage in group work.
- Assign groups ahead of time, thereby removing anxiety associated with the process.

Asking for support and campus resources

When faculty normalize seeking help and using campus resources, students often feel more comfortable asking for support. Some students may be in the process of receiving a diagnosis or navigating the accommodations process with the Office of Student Accessibility Services (SAS) but may feel empowered to discuss their needs and challenges when encouraged to do so.

Course Example

A neurodivergent student enrolled in your class requests to be able to leave the classroom during panic attacks without affecting her class participation grade and to take exams in a private environment so that if she has a panic attack it is less embarrassing.

Inclusive Recommendations

- Include the Accessibility Statement (https://bit.ly/isu-syll) in your syllabus and share it as an essential resource for students throughout the course.
- Reach out through email at the beginning of the semester to any students from whom you've received a Notification Letter (NL) from SAS. Ask to meet to discuss how accommodations will be implemented and clarify course expectations.
- Help students feel more comfortable discussing their SAS accommodations. If you are unclear about accommodations outlined in Notification Letters from SAS, reach out and ask for support.

References

Doyle, N. (2020). Neurodiversity at work: A biopsychosocial model and the impact on working adults. *British Medical Bulletin*, *135*(1), 108–125. https://doi.org/10.1093/bmb/ldaa021

Shmulsky, S. (2022, Winter). Neurodiversity is diversity: How educators can support students who learn differently. *Liberal Education*. American Association of Colleges and Universities. Retrieved from https://www.aacu.org/liberaleducation/articles/neurodiversity-is-diversity

Creative Commons: Strategies to Support Neurodivergent Students, by the Center for Excellence in Learning and Teaching (CELT) at Iowa State University is licensed under Creative Commons BY-NC-SA 4.0. This work, Strategies to support neurodivergent students is a derivative of Neurodiversity Connections: Guide to inclusion in the classroom by Duke University's Neurodiversity Connections (retrieved on August 2, 2022) from https://sites.duke.edu/neurodiversityatduke/resources/on-campus-resources-for-faculty/