

Designing for Neurodiversity

The term “neurodiversity” was first coined to shift autism discourse from deficit to difference with the goal of creating more inclusive practices for autistic individuals. More recently, neurodiversity extends beyond autism and is used to acknowledge and describe neurological differences and accepts them as normal variations of the human brain. Neurodiversity is not a medical term. Rather, it is a term used to celebrate the many ways the human brain experiences and engages with the world. Without a medical definition or list of criteria, then, we might question why we should make design decisions with neurodiverse students in mind. Consider that these students often:

- Have neurotypes that potentially lack visibility
- Are less likely to self-disclose due to fear or the stigma associated with their neurotype
- Self-report higher levels of anxiety, especially in non-academic spaces
- Have higher rates of difficulty than their neurotypical peers
- Are less likely to seek support
- Lack equitable access to a correct diagnosis, especially women, racial minorities, and individuals experiencing financial insecurity

As instructional designers and educators, we are uniquely positioned to provide support structures for neurodiverse students that might otherwise struggle to engage with a course, and these support structures foster success for neurotypical students who benefit from these design strategies as well.



Design Strategies To Support Neurodiversity



Apply Strategies of Universal Design for Learning

While this list is not exhaustive, consider ways to:

- Provide choice in how students demonstrate learning
- Build in support structures for executive function (checklists, step-by-step instructions, multiple opportunities to check in and receive feedback, etc.)
- Offer flexibility as much as possible
- Allow options to work alone or in groups
- Present materials in a variety of ways



Clear, Consistent Layout

Consider ways to create consistency from large-scale to small-scale aspects of the course, including the:

- Navigation of the whole course from start to finish
- Progression through each module
- Structure of each page
- Organization of assignment descriptions
- Use of font, color, etc.



Minimize Distractions

Minimizing distractions in the online space helps learners maintain focus:

- Limit unnecessary information/minimize clutter
- Be purposeful with images, animations, font color, etc.
- Limit navigation away from primary objective
- Avoid video and audio recordings with unnecessary background music or extreme variations in volume



Chunk Content into Smaller, More Digestible Sections

Breaking content into smaller, more digestible sections gives learners more control of pacing, helps learners maintain focus, and reinforces the relationships of content.

- Use heading structure to organize content on a page. This provides a visual map for the content.
- Break large text portions into smaller sections on a Canvas page or in cases where the text is extensive, use multiple Canvas pages for each section
- Keep videos short, ideally under 10 minutes if possible. Additionally, enable captions that students can toggle on and off, allow for variations in speed, incorporate time stamps or knowledge checks



Clear and Concise Assignment Descriptions and Grading Criteria

Consider structuring assignment descriptions that adhere to the following guidelines:

- Avoid including unnecessary or redundant information
- Avoid long paragraph descriptions for instructions
- Provide step-by-step instructions and examples when possible
- Use headings or bulleted/numbered lists to outline steps
- Begin each step with an action verb (read this, write a response that, incorporate xyz, etc.)
- Provide clear expectations and use rubrics to outline specific grading criteria and point values