Embracing Neurodiversity: A Partnership for Faculty Development Centering Accessibility and Universal Design

Ellen Hogan
ellen.hogan@du.edu

Background and Program

Materials and Methods

Research Questions:
• What are the specific challenges that neurodiverse students face in higher education classrooms?
• What is the level of awareness and understanding among faculty regarding neurodiversity, accessibility, and Universal Design for Learning (UDL)?
• How can faculty be effectively engaged and motivated to participate in initiatives aimed at creating inclusive classrooms for neurodiverse students?

Proposals for the Deliverable Assignment:
1. Reflective Growth: "Design a plan that includes at least two hours of research or engaged learning on the topic from this Institute."
2. Engage Your Department: "Design a plan that includes facilitation of a departmental activity to engage and motivate your colleagues."
3. Strategic Plan for Change: "Write up your plan to be an agent for change in your department. You will describe how you will model this work by implementing UDL in your courses, and how you will advance a culture of UDL in your department. How will you make this work transparent and public?"

Learning Outcomes
1) Faculty will be able to explain the following terms to a fellow colleague: Accessibility, Neurodiversity, Universal Design for Learning (UDL).
2) Faculty will be able to apply UDL principles to course experience and design responsive environments to support and collaborate with students.
3) Faculty will be able to advocate for student needs regarding neurodiversity in their home department/program.

Participants
August 2023
13 administrator participants from 8 colleges and programs
December 2022
18 faculty participants from 6 colleges and programs
August 2022
22 faculty participants from 7 colleges and programs
16 faculty participants from 9 colleges and programs

Knowledge of Key Terms
A total of 26 attendees responded to the vocabulary knowledge questions at the pre and post collection points. We focus on changes from the pre to post-test. The pre-test and post-test each consisted of 20 terms. Pre-test scores were used to determine knowledge "before" the Institute, and post-test scores were used to determine knowledge "after" the Institute. A t-test was conducted to determine changes in self-reported understanding of UDL from the pre-test to the post-test. UDL knowledge scores significantly increased from 60.19 (SD=13.69) to 85.01 (SD=13.25) at the end of the Institute, which was significantly higher (t(25)=4.84, p<.001, d=1.238). Significantly improved scores were also obtained for UDL "scaffolding" from 68.58 (SD=19.64) to 85.70 (SD=10.36), (t(25)=4.74, p<.001, d=.863). See Figure 1 for a comparison of pre- and post-institute means.

Follow-up Survey and Interviews:
A total of 23 attendees responded to the post-institute survey, which included 5 follow-up questions. Participants were asked to self-report from 1 (strongly disagree) to 5 (strongly agree) their responses to questions asking how they are changing the Institute and their intentions for future engagement. Responses were overwhelmingly positive. See Table 1 for a summary of the questions and mean responses.

Additionally, participants were asked to identify ways in which they made progress to institute deliverables including:
1) reflective growth,
2) engaging with their department,
3) skills utilized in strategic, systems, and sustainable change.
See Table 2 for a summary of exemplary responses.

Results
Open-ended responses indicated mindset changes and increased awareness of barriers that neurodiverse students encounter.

"The Neurodiversity Institute was my first exposure to Universal Design. I had never before considered how course re-design can, at the same time, benefit neurodiverse students and neurotypical students. Also, from the professor's perspective, I think the burden of making special accommodations. If the point of teaching is to educate rather than gate-keep, the UDL principles clearly serve that goal.

- Biology Faculty Participant

"I've been really struggling with accessibility with PPTs, and I hope this learning more about the process to get them accessible. I learned so much about the institution about neuromyths and that helped me to think more about the complexities of learning. I appreciated the approach to thinking beyond visual, auditory, and kinesthetic learning styles too.

- Sociology Faculty Participant

Future Directions
Our programming was clearly effective in educating faculty on key terminology and increasing self-reported knowledge regarding UDL. However, UDL and creating accessible content and working appropriate resources is a deliverables assignment. The deliverables assignment included long-term commitment to some faculty to sustainable departmental change. Anecdotally, we also saw an increase in registration and engagement in our teaching and learning center's accessibility and UDL programming during the academic year that followed. Additionally, our commitment to keeping the focus on UDL teaching practices rather than addressing common academic accommodations appeared to shift faculty perspective from a deficit mindset about disabled students to a determined focus on reducing access barriers for all students.

Interactive Section!
Visit the QR Code to add to our growing ideas about how to incorporate UDL into your teaching to enhance accessibility for ALL students. If you use UDL strategies in your classroom, please add them for your colleagues to learn from. If you don't use UDL strategies, consider checking out what some of your colleagues are doing in their classrooms. Let's make this a collection of ideas for incorporating UDL in higher ed.

Digital Access and References
Use the QR Code or the short link to access a digital version of this poster as well as the poster references.