Autism and Universal Design Training for Faculty

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Background

- Autistic students may have academic strengths, but struggle to transition into college for a variety of reasons.¹
- In school settings, educators are struggling to enhance their learning environments to incorporate all students, including those with Autism Spectrum Disorder.
- Universal Design is the idea of designing teaching approaches to be accessible to all populations.²
- We are analyzing data from an evaluation of a participatory training to improve faculty’s knowledge of autism and Universal Design.

Purpose

This research intends to explore how faculty can improve their learning environment by drawing data derived from an Autism and Universal Design training for faculty, developed by a research team consisting of eight autistic and seven non-autistic collaborators and academics.

Hypotheses

At pre-test, instructors in STEM fields will express more negative baseline attitudes toward UD and more autism stigma. Alternatively, instructors in helping professions will exhibit more positive baseline attitudes/less stigma.

Discussion

Participants’ Responses To The Question: “What strategies do you plan to use to effectively teach and support your autistic students?”

- “I use Universal Design...within all my classrooms. I have flexible deadlines, flexible uneasy assignments, and I leave myself open to communication...I also frequently check in with students about what they prefer...”
- “I try to explain concepts and ideas until they understand. This might mean repeating information in class or in a one-on-one office meeting...”
- “Make expectations clear, provide alternative ways for students to demonstrate their knowledge, and cultivate an accepting environment within the classroom.”
- “Making sure my teaching practice is more inclusive, embrace diversity of all kind...Be more conscious about...my students learning. Be more flexible and allow students to prove their knowledge in different ways.”

Quantitative Results

Effects of training on knowledge and attitudes (statistics run by an autistic statistician).

- Levels of autism knowledge substantially improved at post-test ($d = 0.927$ [0.744, 1.117], $BF_{rec}=3 \times 10^{3}$)
- Small decline in knowledge between post-test and maintenance ($d = -0.262$ [-0.411, -0.119])
- Inconclusive evidence that this decline from post-test to maintenance was practically meaningful (i.e., $|d| \geq 0.2$, $BF_{ROPE}=0.798$)
- Autism stigma was substantially reduced at post-test ($d = -0.914$ [-1.392, -0.459], $BF_{rec}=117.3$)
- Small increase in autism stigma over the follow-up period ($d = 0.321$ [-0.085, 0.745]), though there was inconclusive evidence for or against a practically significant increase over the follow-up period ($BF_{ROPE}=0.521$)
- Attitudes toward UD were moderately more positive at post-test ($d = -0.621$ [0.421, 0.833], $BF_{rec}=3.45 \times 10^{3}$)
- Over the follow-up period, attitudes toward UD stayed relatively constant ($d = -0.065$ [-0.213, 0.080]), and there was substantial evidence against the presence of a practically significant change over that period ($BF_{ROPE}=0.008$)

References