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The Future is Connection:

Collaboration, Creativity and Compassion in a Digital Society

Enhancing digital learning environments through neurodivergent student perspectives – a co-adaptation approach

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Introduction and context

This poster presentation explores neurodivergent students' perspectives on improving the accessibility and usability of the Canvas Learning Management System (LMS). Drawing on survey and focus group workshop data, we identify key themes and practical implications for creating more inclusive digital learning environments.

As higher education increasingly relies on digital learning platforms, accessible and user-friendly LMS design is essential for student engagement, success and equitable participation, particularly for neurodivergent learners (Edwards, 2022; Veytia Bucheli et al., 2024). Despite growing emphasis on inclusive educational practices in higher education, there remains comparatively limited research on how neurodivergent students experience LMS design and which improvements they prioritise. Our study investigates this gap between what neurodivergent students value and what they experience as being implemented in practice. This research reflects the conference theme, The Future is Connection, demonstrating how collaboration, and compassion can shape more inclusive digital learning environments.

Methodology

A mixed-methods approach combined quantitative and qualitative analysis of survey responses from 90 neurodivergent students with insights from two focus group workshops about their experiences using Canvas LMS and their suggestions for improvement. Data was analysed using R to identify insights and key themes. The study aimed to identify key areas of concern and ideas for enhancing the accessibility and user-friendliness of Canvas LMS sites.

Evidence

Key themes emerged from the analysis:

- consistent navigation and predictable layouts across subjects;
- improved accessibility features, including screen reader compatibility and closed captions;
- clearer content organisation and labelling
- clear communication of course requirements and deadlines;
- accessible multimedia content and lecture materials
- greater consistency in Canvas site design across the institution.

Contribution

Our findings indicate that the implementation-value gap in LMS design is particularly pronounced for neurodivergent students. The project enhances Canvas LMS accessibility and user experience for neurodivergent students, potentially reducing anxiety and improving engagement with learning materials.

Engagement

This interactive poster invites participants to reflect on the accessibility and inclusivity of their

own LMS sites for neurodivergent students. Through reflection prompts and an interactive poll, attendees are invited to engage with the research findings, share their experiences, and contribute practical ideas for creating more accessible and inclusive digital learning environments across higher education.

Reflection prompts include:
- *Can we co-design Universal Design for Learning (UDL)-based LMS templates that genuinely reflect the lived experiences of neurodivergent students while remaining practical to implement?*
- *What changes to your LMS would most improve accessibility and usability for all students?*

Keywords: LMS, digital accessibility, UDL, neurodiversity, student-centered design, co-adaptation

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