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Future-Focused:

Educating in an Era of Continuous Change

"It's more than a checklist": Co-designing accessibility with staff and students with visual impairment

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This paper reflects on a co-design initiative with students with visual impairment to improve accessibility in a Canvas-based learning environment at an Australian-owned university in Vietnam. The project shifted practice from reactive compliance with WCAG standards to a more relational, proactive approach—embedding user feedback during the design phase.
Situated within a broader context of limited inclusion in Vietnamese higher education, the paper argues that technical standards alone cannot ensure meaningful accessibility. Co-design fostered practical improvements and prompted mindset shifts among learning designers. Cultural values such as trust and collaboration further supported the process. The paper concludes by identifying implications for institutions in similar contexts and future applications for supporting neurodivergent learners through co-design.

Keywords: Accessibility, Relational accessibility, Co-design, Students as partners, Inclusive education in Vietnam, Visual impairment, Higher education.

Background and Context

Inclusion remains underdeveloped in Vietnamese higher education, where only 0.1% of people with disabilities (PWDs) complete a bachelor's degree (Nguyen, 2018, as cited in Hsu et al., 2023). This is due to limited accessibility infrastructure, a lack of trained educators, and weak implementation of disability laws. Crucially, higher education policy prioritises quality assurance and output metrics over inclusivity (Hsu et al., 2023). No national data exists on the number of students with disabilities (SWDs) currently attending university, reflecting systemic gaps in data-driven accountability (Hsu et al., 2023). As a result, SWDs remain marginalised both in education and in the labour market.

As the first foreign-owned university in Vietnam, RMIT Vietnam has pioneered the inclusion of people with disabilities in the local context. The establishment of the Equity and Disability Resource Centre (EDRC) in 2013 and the launch of RMIT Access in 2016 marked significant advances in supporting students with disabilities (SWDs) through individualised access plans, assistive technologies, and disability advocacy (Peck et al., 2018; Witney, 2016, as cited in Hsu et al., 2023). This commitment has since evolved into broader, system-wide initiatives that embed inclusion across all aspects of learning and teaching.

Inclusion is now a core value integrated throughout RMIT Vietnam's teaching and learning strategy. The university's Active, Applied, and Authentic (AAA) pedagogy frames students as active partners in their learning (RMIT, n.d.), while the IDEA framework—Inclusion, Diversity, Equity, and Access—articulates the vision of being "Inclusive by Design: Everyone, Everywhere, All the time" (RMIT University, n.d.). Within the Learning Design team, this commitment is realised through the adoption of Universal Design for Learning (UDL) principles. UDL guides the team to build flexible learning pathways, offer multiple means of engagement, and address learner variability proactively (CAST, 2024). However, UDL's success depends on a foundational layer of accessibility: without accessible content and platforms, flexibility and engagement cannot be achieved. Co-creation, or co-design, is one way the Learning Design team operationalises these commitments, bringing students into the design process as partners. Rather than being passive beneficiaries, students contribute lived expertise that informs practical adaptations (Sanders & Stappers, 2007; Bøjer & Brøns, 2022, as cited in Hill, Lai, & Greenaway, 2024; Huber & Jacka, 2022).

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In 2024, the Inclusive Digital Learning Initiative (IDLI) - an internal project led by the Learning Design team at RMIT Vietnam - brought together learning designers and users with visual impairments, including students and a staff member from the Equitable Learning and Accessibility (ELA) team. The group collaborated to identify, evaluate, and co-design accessibility enhancements in Canvas, the university's learning management system (LMS). Echoing Park et al. (2019) who discuss Massive Open Online Course (MOOC) accessibility, this project recognised that while guidelines like WCAG raise baseline awareness, even W3C notes that full compliance at AAA level, does not guarantee accessibility for all users, particularly those with cognitive or learning needs (W3C, 2018). As such, technical standards alone cannot address the lived, contextual experiences of users (Coughlan et al., 2017; Cooper et al., 2012, as cited in Park et al., 2019). Involving staff and students with visual impairment as co-design partners allowed for deeper insights into local barriers and practical design adaptations, which shifts the focus from technical compliance to what some have described as a relational approach to accessibility, where inclusion is shaped through ongoing dialogue, empathy, and trust (Cook-Sather, 2016; Cooper et al., 2012, as cited in Park et al., 2019).

This paper presents a reflective account of a co-design initiative focused on accessibility in digital learning. It situates the project within the broader Vietnamese context of limited inclusion and explores how participatory, relational design reshaped practice at RMIT Vietnam. The paper argues that such partnerships offer a meaningful shift toward digital equity, particularly in contexts where inclusion is still emerging as a policy and design priority.

The Initiative

In Semester 2, 2024, the initiative conducted a focused accessibility testing project in collaboration with an ELA staff member and three students, all of whom are visually impaired. The primary goal was to develop internal guidelines for screen reader users to use interactive elements, especially interactive activities created using H5P (a tool commonly used for knowledge-checking activities) on the Canvas LMS.

The testing approach followed the three accessibility evaluation methods described by Abou-Zahra (2008, as cited in Park et al., 2019): automated testing, manual testing, and user testing.

- Automated testing was conducted using standard tools such as screen readers (NVDA, JAWS, macOS's VoiceOver) and the Colour Contrast Analyser. The test content was iteratively refined to meet WCAG 2.2 AA standards for contrast, semantics, and navigation.
- Manual testing involved participants completing predefined tasks on Canvas using screen readers. This helped identify labelling issues, interaction breakdowns, and layout-related friction in activities such as drag the words, drag and drop, and sort the paragraph.
- User testing focused on broader experience-oriented feedback. Participants were interviewed about their general use of Canvas, including screen reader navigation, cognitive load, keyboard traps, and the accessibility of visual descriptions. As end users with real experience on the platform, their perspectives were critical for surfacing practical, context-sensitive design recommendations. Findings from all three phases were synthesised into actionable recommendations. These focused on improving interactive diagrams, refining alt-text strategies, and designing more inclusive online activities. A summary of these findings and solutions is presented in Table 1 below.

Table 1
Summary of findings and solutions

Test items	Testing options	Findings	Solutions/Suggestions
Multimedia experience	Description formats for complex images.	Some descriptions only replicate the diagram text, leaving users unsure of layout	Describe the relationships between elements to clarify structure and meaning.

		and meaning.	
	Inline alt-text that's short and embedded	Overly dense descriptions create cognitive load, as screen readers do not support easy back-and-forth navigation for alt-text.	Use collapsible sections (toggle buttons) to give users control over when and how they read descriptions—helpful for screen reader users and non-native English-speaking students who benefit from processing information at their own pace.
	PDF (downloadable or in-browser pop-up)	Additional navigation steps are required, increasing cognitive effort and disorientation for users.	Avoid this method for images and diagrams due to poor navigation support.
	Video	If the video is about the demonstration of a procedure, the actions need to be described.	Videos in use should have speakers describe the actions or what's happening, without relying on visual cue.
Interactive activities (H5P)	Multiple-choice	Accessible	
	Sort the paragraph	Screen readers do not announce when draggable items are selected.	Adding descriptive labels to grabbable elements so the screen reader announces when items are selected.
	Drag the words	Inaccessible – Screen readers read gapped text and options separately, causing confusion.	Replace with drop-down selection (complex fill-in-the-blank), which are easier to navigate via keyboard and screen reader. Create custom HTML alternatives that are fully accessible and responsive.
	Drag and drop	Partially accessible; minor screen reader adjustments required	Add visually hidden number or letter prefixes to draggable items (e.g., using background-matched text) to support screen reader navigation and help users track item order.

Results and Reflections

Results: From reactive compliance to inclusive-by-design

Prior to this initiative, the Learning Design team followed all the rules for accessibility to ensure compliance with RMIT's WCAG 2.2 Level AA standards at the minimum and aim for AAA where possible. While this review process remained important, it was limited to checklist-based accessibility assurance.

Through this project, the Learning Design team initiated a shift toward a proactive, inclusive-by-design model. Findings from the co-design process with staff and students with visual impairment were operationalised early in the course development phase: embedded into Canvas templates, internal checklists, and visual design guidelines. This shift reframed accessibility as a core design principle rather than a post-hoc correction. Internal guidelines were established to ensure that co-created solutions, such as alternative H5P quiz structures and screen reader-friendly layouts, were consistently applied across courses.

Reflections: What co-design revealed

The co-design process revealed that technical compliance alone does not guarantee an accessible or inclusive user experience. While tools and vendors often claim accessibility compliance, student feedback highlighted the persistent disconnect between those claims and lived experience. This echoes earlier critiques that accessibility checklists may obscure deeper usability challenges (Coughlan et al., 2017; Cooper et al., 2012, as cited in Park et al., 2019).

More unexpectedly, the process was deeply humanising for the learning designers involved. Observing and listening to students describe the friction and emotional labour involved in navigating inaccessible interfaces fostered a deeper sense of empathy. As Cook-Sather (2016) note, co-design creates "brave spaces" that support mutual understanding and the reimagining of learning environments.

This project did not simply result in improved design; it reshaped how learning designers approached accessibility: not as an obligation, but as a shared responsibility rooted in student experience.

Discussion

This initiative contributes to the evolving conversation on digital equity and accessibility by demonstrating how co-design can reshape learning design practice, even in contexts where inclusion is not yet systematically embedded. While accessibility is gaining visibility in global higher education, many institutions, particularly in Southeast Asia, continue to treat it primarily as a technical or compliance-based concern, with limited attention to relational or contextual dimensions (UNESCO, 2023).

For institutions operating in similar environments, such as transnational campuses or Vietnamese universities with limited resources, this project offers a practical example of how change can begin through small-scale, staff-led initiatives. Rather than waiting for policy reform, the Learning Design team integrated user feedback directly into their workflows, developed reusable accessibility guidelines, and adapted Canvas content to meet the real needs of screen reader users. These practices demonstrate that inclusive design is not dependent on structural overhaul, but can be driven by trust, collaboration, and thoughtful iteration.

This shift also highlights the importance of relational accessibility. As prior literature has noted, accessibility guidelines like WCAG provide a crucial baseline, but often overlook the complexity of lived experience (Cooper et al., 2012; Coughlan et al., 2017, as cited in Park et al., 2019). Building on the Learning Design team's use of Universal Design for Learning (UDL) principles, this work reinforces UDL's view that access is a starting point rather than an end point (CAST, 2024). Co-design complements UDL by ensuring that beyond meeting baseline access, designs actively address learner variability through empathetic, student-partnered processes. In this case, direct observation enabled a deeper understanding of how tools labelled "accessible" can still produce frustration, friction, and fatigue. This echoes Cook-Sather's (2016) call for co-design as a pathway to creating "brave spaces," where shared insight can lead to structural empathy and cultural change.

While these findings align with existing research from Western contexts, the Vietnamese setting adds a critical local dimension. Cultural traits such as interpersonal trust, pragmatic problem-solving, and deep respect for educators, rooted in Confucian and collectivist values, may have supported the success of this co-design approach (Giang & Huynh, 2022). The openness and depth of student contributions suggested that they experienced the process as respectful and collaborative, even if that was not explicitly stated. This suggests

that Vietnamese cultural norms, while often seen as barriers to structural change, can in fact support inclusive practices.

Finally, this work contributes to a relatively underrepresented strand of global accessibility research. While studies on inclusive design, user testing, and student partnerships are growing, they remain concentrated in Western systems. By documenting a grounded example of co-design in Vietnam, this paper expands the visibility of inclusive education practices in Southeast Asia and invites further research on culturally responsive models of accessibility in digital learning.

Conclusion

This paper has illustrated how co-design with end-users, in this case, participants with visual impairments, can act as a means for shifting accessibility work from reactive compliance to proactive, relational practice. By embedding user insights into the design phase, the project reframed accessibility not as a checklist but as an ongoing partnership grounded in empathy, responsiveness, and trust.

The outcome of this initiative also points to broader possibilities. Similar relational and co-design approaches can be extended to other marginalised learner groups, including neurodivergent students, whose needs are similarly underrepresented in mainstream accessibility frameworks. As inclusive design gains traction, small-scale, context-aware initiatives like this one hope to offer an example for how institutions can localise global standards and reimagine digital equity from the ground up.

References

CAST. (2024). *Universal Design for Learning guidelines version 3.0* [graphic organizer]. CAST. https://udlguidelines.cast.org

Cook-Sather, A. (2016). Creating brave spaces within and through student-faculty pedagogical partnerships. *Teaching and Learning Together in Higher Education, 1*(18). https://repository.brynmawr.edu/tlthe/vol1/iss18/1/

Giang, T.-V., & Huynh, V.-S. (2022). The impact of Confucianism on social and emotional health of Vietnamese adolescents: A phenomenological study. *Acta Psychologica, 229,* 103700. https://doi.org/10.1016/j.actpsy.2022.103700

Hill, K., Lai, P., & Greenaway, R. (2024). Collaborative co-design to reimagine teaching practices in hybrid spaces. In ASCILITE 2024 Conference Companion Materials. *Australasian Society for Computers in Learning in Tertiary Education (ASCILITE)*. pp. 1–2. https://doi.org/10.14742/apubs.2024.1362

Huber, E., & Jacka, L. (2022). Co-design of higher education. In C. Campbell, D. B. Porter, D. Logan-Fleming, & H. Jones (Eds.), Scanning the ed tech horizon: The 2021–2022 Contextualising Horizon Report. *ASCILITE*. pp. 30–31. https://ascilite.org/get-involved/contextualising-horizon/

Hsu, T.-H., Le, H., & Fried, J. H. (2023). Implementation of inclusion in Vietnam higher education: Current practices and challenges. In J. W. Madaus & L. L. Dukes III (Eds.), Handbook of higher education and disability. *Edward Elgar Publishing*. pp. 75–86 https://ideas.repec.org/h/elg/eechap/21119_7.html

O'Shea, S. (2018). Equity and students as partners: The importance of inclusive relationships. *International Journal for Students as Partners, 2*(2). pp. 16–20. https://doi.org/10.15173/ijsap.v2i2.3628

Park, K., So, H.-J., & Cha, H. (2019). Digital equity and accessible MOOCs: Accessibility evaluations of mobile MOOCs for learners with visual impairments. *Australasian Journal of Educational Technology, 35*(6). pp. 48–63. https://doi.org/10.14742/ajet.5521

RMIT University. (n.d.). AAA pedagogy: Active, applied, authentic. In Key transferable skills for employability. https://rmit.pressbooks.pub/keytransferableskills/chapter/1-4-educators-notes/

RMIT University. (n.d.). *Diversity and inclusion*. RMIT University. https://www.rmit.edu.au/about/our-values/diversity-and-inclusion

UNESCO. (2023). Policy brief: Advancing disability inclusion in higher education in Southeast Asia. *United Nations Educational, Scientific and Cultural Organization.* https://unesdoc.unesco.org/ark:/48223/pf0000386121

World Wide Web Consortium (W3C). (2018). *Web Content Accessibility Guidelines (WCAG) 2.1*. W3C Recommendation. https://www.w3.org/TR/WCAG21/

Nguyen, N., Tran, Q. & Le, G. (2025). "It's more than a checklist": Co-designing accessibility with staff and students with visual impairment. In Barker, S., Kelly, S., McInnes, R., & Dinmore, S. (Eds.), *Future Focussed. Educating in an era of continuous change*. Proceedings ASCILITE 2025. Adelaide (pp. 408-413). https://doi.org/10.65106/apubs.2025.2684

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