ASCILITE 2025

Future-Focused:

Educating in an Era of Continuous Change

Co-designing inclusive, accessible micro-credentials

Megan Colbert, Laura Airey, Richard McInnes

The University of Adelaide, Australia

Micro-credentials are a flexible and responsive course type that meets the evolving demands of learners, industries, and higher education institutions (Department of Education, 2024; Department of Education, 2022). However, despite universities increasingly integrating micro-credentials into their credentialing ecosystems, formal and non-formal education still operate in a largely separate fashion (Oliver, 2019); in this system, micro-credential learners are often not afforded the same status, rights, or institutional support as traditional degree-seeking students. Although online learning has become more commonplace in recent years, accessibility issues are still frequently experienced by students (Briggs et al., 2024). Additionally, when accessible and inclusive practices are present, they often lack integration or are applied inconsistently (Bandalaria, 2020). These discrepancies undermine both the learner's experience and the credibility of micro-credentials as a legitimate higher education pathway. As such, when designing micro-credentials, it is critical that clear processes for ensuring accessibility and inclusion are embedded from the outset (van Rooij & Zirkle, 2016).

For accessibility and inclusion strategies to be implemented effectively during course development, they should be designed with an intersectional perspective and consideration for the diverse needs of learners (Australian Disability Clearinghouse on Education and Training, n.d.), guided by key frameworks such as Universal Design for Learning (UDL) (CAST, n.d.) and Web Content Accessibility Guidelines (WCAG) (World Wide Web Consortium, 2023), and supplemented by related frameworks such as Cognitive Accessibility (Le Cunff, 2024; Web Accessibility Initiative, 2024) and Multimedia Learning Theory (Mayer, 2017) alongside relevant pedagogical approaches such as inclusive teaching (Rossi, 2022), and andragogical strategies to support adult learners (Ramirez & Inga, 2022).

In our work as educational designers, we co-develop micro-credentials for our traditional student cohort, for MOOC platforms, and custom credentials for clients, working closely with academic staff and industry subject matter experts as part of a collaborative course development process. Our approach builds upon foundational standards such as the Higher Education Standards Framework (TEQSA, 2022) and draws upon different areas of expertise, including the frameworks and practices identified above, to help us support the unique context and learner cohort of micro-credentials. Through balancing effective pedagogy with inclusive and accessible design we developed a cohesive, consistent approach to course development. Our approach included clear guidelines to uphold our principles of providing equitable access to education through making content accessible and inclusive for a diverse audience, whilst also benefiting all learners by making learning experiences more flexible, learner-centred, and engaging (Digital Learning Institute, n.d.).

This case study demonstrates how rapid development of short courses can be undertaken with an inclusion-first approach to creating learning environments that cater to diverse needs, abilities, and backgrounds. We share practical principles and evidence-based strategies, in addition to how these principles were consistently applied in practice through examples of our work. Through shared, transparent practices, we will demonstrate how accessibility and inclusion-first approaches can be embedded in micro-credential design, in order to provide a practical approach that can be adopted by others to build more equitable micro-credentials and enhance the quality of learning for all.

Keywords: inclusive education; course design; micro credentials; adult learning; higher education

ASCILITE 2025

Future-Focused:

Educating in an Era of Continuous Change

References

- Australian Disability Clearinghouse on Education and Training. (n.d.). *Course Design*. https://www.adcet.edu.au/inclusive-teaching/teaching-assessment/course-design
- Bandalaria, M. dela P. (2020). Universal Access in Online Distance Education: A Case Study From the Philippines. In S. L. Gronseth & E. M. Dalton (Eds.), *Universal Access Through Inclusive Instructional Design* (1st ed., pp. 187–196). Routledge. https://doi.org/10.4324/9780429435515-24
- Briggs, M., Archibald, A., Heap, T., Thompson, R. 'Rudi,' & Liss, A. 'Ellie.' (2024). Identifying one university's prevailing online course accessibility issues. Educational Technology & Society, 27(4), 319–338. https://doi.org/10.30191/ETS.202410 27(4).SP07
- CAST. (n.d.). *Universal Design for Learning*. https://www.cast.org/what-we-do/universal-design-for-learning/
 Department of Education, Skills and Employment. (2022). *National Microcredentials Framework*. Australian Government. https://www.education.gov.au/higher-education-publications/resources/national-microcredentials-framework
- Department of Education, Skills and Employment. (2025). *Australian Universities Accord*. Australian Government. https://www.education.gov.au/australian-universities-accord
- Digital Learning Institute. (n.d.). Making Digital Learning More Accessible: Essential Strategies for Inclusion. https://www.digitallearninginstitute.com/blog/making-digital-learning-more-accessible-essential-strategies-for-inclusion
- Le Cunff, A.-L., Giampietro, V., & Dommett, E. (2024). Neurodiversity and cognitive load in online learning: A focus group study. *PLOS ONE*, 19(4), e0301932. https://doi.org/10.1371/journal.pone.0301932
- Mayer, R. E. (2017). Using multimedia for e-learning. Journal of Computer Assisted Learning, 33(5), 403–423. https://doi.org/10.1111/jcal.12197
- Oliver, B. (2019). Making micro-credentials work for learners, employers and providers. Deakin University. https://dteach.deakin.edu.au/wp-content/uploads/sites/103/2019/08/Making-micro-credentials-work-Oliver-Deakin-2019-full-report.pdf
- Ramirez, A., & Inga, E. (2022). Educational Innovation in Adult Learning Considering Digital Transformation for Social Inclusion. *Education Sciences*, 12(12), Article 882. https://doi.org/10.3390/educsci12120882
- Rossi, M. (2022). Universal Design for Learning and Inclusive Teaching: Future Perspectives. Elementa, 1(1–2), 103–113. https://doi.org/10.7358/elem-2021-0102-ross
- TEQSA. 2022. Higher Education Standards Framework (Threshold Standards) 2021). https://www.teqsa.gov.au/how-we-regulate/higher-education-standards-framework-2021
- van Rooij, S. W., & Zirkle, K. (2016). Balancing pedagogy, student readiness and accessibility: A case study in collaborative online course development. *The Internet and Higher Education*, 28, 1–7. https://doi.org/10.1016/j.iheduc.2015.08.001
- Web Accessibility Initiative. (2024). *Cognitive Accessibility at W3C.* W3C Web Accessibility Initiative (WAI). https://www.w3.org/WAI/cognitive/
- World Wide Web Consortium. (2023). *Web content accessibility guidelines (WCAG) 2.2*. https://www.w3.org/TR/WCAG22/

Colbert, M., Airey, L., & McInnes, R. (2025, Nov 30 – Dec 3). Co-designing inclusive, accessible micro-credentials [Poster Presentation]. Australasian Society for Computers in Learning in Tertiary Education Conference, Adelaide, Australia. https://doi.org/10.65106/apubs.2025.2709

Note: All published papers are refereed, having undergone a double-blind peer-review process. The author(s) assign a Creative Commons by attribution license enabling others to distribute, remix, tweak, and build upon their work, even commercially, as long as credit is given to the author(s) for the original creation.

© Colbert, M., Airey, L., & McInnes, R. 2025