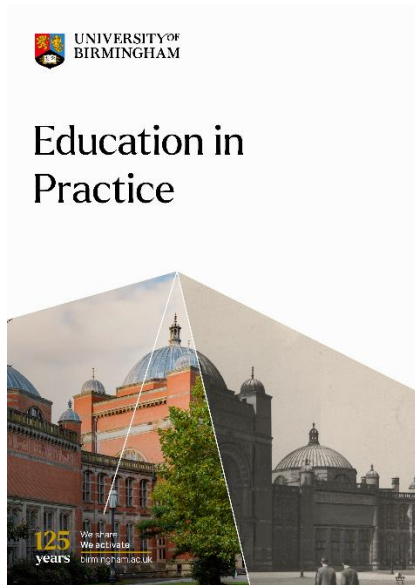




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Designing an inclusive digital mental health module: a case study in supporting diverse postgraduate learners

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Abstract

This case study outlines the inclusive learning design and pedagogical approaches used to support a diverse and international cohort in the Digital Mental Health module of a distance-learning MSc programme at the University of Birmingham. The international cohort comprised working professionals and learners with diverse educational and cultural backgrounds. Recognising that traditional didactic approaches were unsuitable for this group, the module was redesigned using micro-lectures, case-based learning, and scaffolded materials informed by the Jisc Digital Pedagogy Toolkit. Constructive alignment ensured coherence between learning outcomes, activities, and assessments, including higher-order MCQs validated by external examiners. This case study highlights how flexible digital pedagogies, cultural responsiveness, and iterative student feedback can enhance engagement, confidence, and critical application of knowledge in an internationalised online environment. The study concludes with recommendations for HE educators designing inclusive learning in digitally mediated postgraduate programmes.

Keywords: online learning, distance learning, flexible digital pedagogy, digital mental health teaching

Context and rationale

Online learning has become an increasingly central feature of higher education worldwide, driven by technological advances, widening participation agendas, and the need to offer flexible learning pathways for diverse student groups. Research widely recognises that online and blended learning environments provide significant benefits, most notably flexibility, accessibility, and learner autonomy (Müller, Mildemberger and Steingruber, 2023). Consequently, distance learning modules for diverse international postgraduate cohorts must move beyond traditional lecture-based delivery, which often fails to address the complexities of online engagement, cultural diversity and independent learning (Müller and Mildemberger, 2021; Santiago *et al.*, 2021).

As module lead for the *Digital Mental Health (DMH)- Research, Intervention and Youth* module, I oversaw a component of an MSc programme that is delivered entirely through distance learning at the University of Birmingham. Cohorts are typically composed of international students, practitioners balancing work and study, mature learners returning to education, and students with a range of academic and cultural backgrounds. Many were unfamiliar with UK academic standards, varied widely in digital confidence, and lived across multiple time zones. These characteristics made it clear that traditional lecture-based teaching would be unsuitable. What was required was a flexible, culturally responsive design that respected learner diversity, promoted meaningful engagement, and supported the autonomous learning demanded by a postgraduate distance-learning environment.

I developed the module during the early stages of the programme, when opportunities for student feedback were limited. In developing the content, I drew on guidance from experienced mentors, academic experts, and literature reviews on emerging practices in digital mental health.

The design of the module, therefore, aimed to:

1. Increase accessibility and flexibility;
2. Promote culturally informed and authentic application of knowledge; and
3. Create aligned assessments that supported higher-order thinking.

Designing the Digital Mental Health module

Designing and developing a module from scratch on digital mental health for MSc cohorts required me to carefully align learning outcomes, assessment strategies, and teaching activities, while also integrating current research, relevant digital tools, and inclusive pedagogical practices. Through initial consultation with the DL teaching team, informal feedback from colleagues, and my own observations of early iterations of the programme, I identified several key steps to develop the module that promote effective learning. The following actions were taken to make the module coherent, inclusive, and effective for online postgraduate learning.

My first step was to design a learning environment that ensured flexibility and accessibility while retaining the academic rigour expected at the postgraduate level. Flexible learning helps expand access by allowing students to balance education with professional, familial, and personal responsibilities, while also accommodating diverse paces, time zones, and learning preferences (El Galad, Betts and Campbell, 2024). These considerations are particularly critical in online contexts, in which our postgraduate learners often balance study with full-time employment, caring responsibilities, and professional placements across multiple time zones. Evidence from large-scale evaluations of flexible online programmes demonstrated that reducing rigid contact hours and replacing them with well-designed online components

can preserve, and sometimes enhance, learning effectiveness, provided that the course maintains strong structure, interaction opportunities, and timely feedback (Müller, Mildemberger and Steingruber, 2023).

Recognising the international composition of the cohort, I intentionally integrated culturally diverse and inclusive case materials as the international cohorts bring varied linguistic repertoires, communication norms, and prior educational experiences. Reviews of culturally diverse engagement in online higher education show that linguistic clarity, accessible materials, and compassionate teaching significantly shape participation and persistence for diverse learners (Tereshko *et al.*, 2025). To operationalise this, the Digital Mental Health (DMH) module required students to critique tools from their home countries. Grounded in critical and humanistic pedagogies, this approach shifted the power dynamic of the classroom by valuing and centering the students' own realities and localised contexts (Markey *et al.*, 2021). This approach not only connected global theory with local practice but also fostered an inclusive environment in which international perspectives are central to the learning process. By ensuring international perspectives were central, rather than supplementary, to the learning process, the curriculum moved beyond standard Western narratives to foster authentic global inclusivity (Arday *et al.*, 2021; Reyes *et al.*, 2021). Moving forward, I will continue to apply and build on this strategy in future teaching contexts and relevant modules to strengthen global inclusivity and engagement further.

The overall structure of the module followed a scaffolded progression: I began with foundational principles of digital mental health, moved into the evaluation of interventions, examined key ethical considerations, and concluded with the design of digital interventions. This structure supported diverse learners by gradually increasing complexity in a manageable way and reducing potential for students to be overwhelmed when they encountered more advanced content. Moreover, to enhance comprehension, I supported the material with videos, visual aids, concept maps, brief expert interviews, and discussion-based activities. These multiple representations of information helped break down complex ideas and manage cognitive load while accommodating self-paced learning (Castro-Alonso *et al.*, 2021). Interactive activities formed the core of the weekly engagement. Students were asked to analyse real digital mental health interventions, critique their theoretical foundations, and evaluate cultural and ethical implications.

Research shows that while facts can be delivered effectively (cognitive presence) and structure can be provided consistently (teaching presence), establishing a genuine human connection is far more challenging in online environments, particularly across different time zones and diverse learner backgrounds (Budhai and Williams, 2016). With this in mind, I incorporated deliberate *human* touchpoints into the module design, and I scheduled office hours twice a week to offer students an informal space to ask questions, seek clarification, or simply check in. I also made it clear that students in

different time zones, or those unable to attend, were welcome to request an alternative meeting time or contact me via email.

Assessment design was a major area of development. Multiple-choice questions (MCQs) were used not as low-level knowledge tests but as tools to assess analytical reasoning. I created scenario-based MCQs which required students to evaluate ethical implications or identify the most appropriate intervention strategy. This aligned with the module's learning outcomes focused on the critical application of theory, and was informed by Wiggins' seminal work on authentic assessment which argues that tasks should mirror the complexity and ambiguity of real-world professional challenges, requiring learners to apply knowledge rather than recalling it in decontextualised formats (Wiggins, 2011).

Outcomes

The initial implementation of the Digital Mental Health module produced a set of encouraging and informative outcomes that directly indicate the effectiveness of my pedagogical design choices. While formal student feedback is not yet available, as the module is running for the first time, emerging outcomes can be inferred from monitoring the discussion forums, learning analytics, assessment results, and moderator feedback. Furthermore, as the assessor, my review alongside the moderator reports for both assessments offered rich insight into how students engaged with the learning structure, the authenticity of the assessment tasks, and the inclusive, scaffolded environment that supported their learning.

The module's external examiners praised the alignment between learning outcomes and assessments, specifically noting the strong emphasis on higher-order cognitive skills. Their feedback informed refinements to the assessment's questions, such as expanding scenario detail and increasing opportunities for students to demonstrate evaluative reasoning. This aligns with contemporary analysis by Koh (2017) and practice-oriented guidance from UK universities emphasise authenticity as essential for developing higher-order thinking and bridging the gap between academic and professional competence.

Students engaged well with the scenario-based MCQs, which were intentionally designed to test analytical reasoning rather than factual recall. The assessment produced a cohort mean of 82.29% with no failed scripts. As the assessor, I observed that overall performance was strong and that students showed confident understanding across the foundational themes introduced early in the module. This outcome is consistent with the module's intentional scaffolding, multimedia explanations, and structured progression aimed at managing cognitive load and supporting self-paced engagement (Castro-Alonso *et al.*, 2021). However, topics such as digital ethics, privacy, AI-driven mental health tools, neurodevelopmental considerations, and emerging technologies prompted more varied responses, confirming the need for deeper exemplification in these higher-order areas. This offers

a valuable direction for strengthening explanations, examples, and guided practice in these nuanced areas in the next phase.

The research proposal assessment also showed a healthy grade distribution ($M = 63.55$, $SD = 9.85$). As I was grading, I noted that many students demonstrated thoughtful integration of literature, clear articulation of a problem rationale, and an emerging capacity to apply methodological principles to the design of feasible and meaningful digital mental health interventions. This outcome evidences the module's emphasis on authentic, complex tasks and culturally responsive learning, where students draw on diverse contexts to inform design decisions (Morong and DesBiens, 2016). Moderator feedback also highlighted clear structure, evidence-based justification, and thoughtful innovation in many submissions, indicating that the scaffolded curriculum effectively supported analytical skill development. Students proposals, many of which drew on tools, challenges, and health systems from their own cultural or national contexts, also showed me that integrating globally diverse examples and encouraging students to examine tools from their home regions positioned their lived experiences as a central resource for learning. The depth of applied reasoning demonstrated across the assessments reinforced the value of the internationally inclusive, case-based approach in supporting relevance, transfer of learning, and deeper engagement. At the same time, a number of submissions revealed that the level of design detail expected at postgraduate level would benefit from further guidance in future iterations.

Moderation further confirmed that the feedback I provided to students was clear, detailed, specifically tailored to the strengths and developmental needs of each submission and consistent across submissions, effectively supporting learning across a diverse cohort. This outcome reflects my deliberate emphasis on teaching presence and personalised touchpoints embedded throughout the module design. The moderator also noted the value of summarised observations in my feedback and recommended strengthening explicit connections between these summaries and the marking rubric in future cycles. These insights directly inform iterative enhancement in accordance with design-based and evidence-informed teaching approaches. These operational insights reinforce the module's responsiveness and provide a clear direction for enhancing transparency, consistency, and student understanding in future deliveries.

As I monitored the discussion forum, I observed strong participation, with students frequently engaging in weekly activities and collaborative analysis. The resulting discussions were notably rich, as students drew on their own professional and regional experiences, thereby deepening peer learning. This aligns with the Community of Inquiry framework, which emphasises that meaningful online learning relies on a balance of teaching, social, and cognitive presence rather than content alone (Garrison and Arbaugh, 2007). Research demonstrates that active learning strategies enhance engagement and retention in online environments (Khan *et al.*, 2017), making

this an essential element of my module design. Learning analytics also indicated consistently high engagement with the asynchronous materials.

In future iterations, I will move beyond these emerging indicators by implementing a more systematic evaluation strategy. I plan to gather student feedback iteratively through informal check-ins and mid-module surveys, alongside analysing performance data and reviewing external examiner commentary. Together, these sources will enable me to corroborate and extend the preliminary outcomes identified in this first implementation and guide the ongoing, evidence-informed refinement of the module.

Recommendations for designing similar online modules

Educators designing comparable online modules may consider the following recommendations:

- **Use micro-lectures to reduce cognitive load and increase flexibility.** Research suggests that flexible online learning structures improve learner persistence and reduce dropout rates (Müller, Mildemberger and Steingruber, 2023). Incorporating short micro-lectures and asynchronous components can reduce rigid contact requirements while allowing students to engage with content at their own pace. This approach is particularly beneficial for working professionals and international learners who may be balancing study with other commitments. Moreover, pairing this approach with a scaffolded progression from foundational concepts to more complex tasks can further reduce cognitive overload and support learner confidence and mastery (Castro-Alonso *et al.*, 2021).
- **Incorporate culturally diverse case studies to enhance relevance and belonging.** The heart of a successful online classroom lies not only in technological design but in its human application: students need more than just a screen, they require explicit guidance, meaningful interaction, and a sense of belonging in order to truly thrive (Swan *et al.*, 2014). Evidence shows that culturally responsive materials increase online participation and strengthen students' sense of belonging, particularly among international learners (Tereshko *et al.*, 2025). Perhaps most importantly, the approach acknowledges diversity not as a challenge to be managed but as a resource that enriches learning. When students can bring their cultural and professional identities into discussion, learning becomes deeper, more relevant, and more collaborative.
- **Prioritise authentic, applied learning rather than transmissive teaching.** Designing tasks that require students to apply concepts to real-world contexts encourages deeper engagement and supports the development of practical analytical skills (Lowell and Moore, 2020).

- **Adopt open-source tools to improve accessibility.** Using open-source platforms and resources can reduce financial barriers for students while increasing access to learning materials and analytical tools (Adil *et al.*, 2024).

Conclusion

As the inaugural delivery of the DMH module, these initial outcomes offer compelling, evidence-informed indicators that the underlying design decisions are functioning as intended. By consciously moving away from traditional, transmissive lecture modes toward a highly active, asynchronous learning environment, this module demonstrates that meaningful engagement in distance learning contexts can be deliberately designed rather than assumed. The strong participation, high levels of analytical performance, and absence of failed scripts collectively underscore the value of an educational architecture that integrates structured human touchpoints with flexible digital delivery, an area where engagement is often difficult to sustain.

Central to this success is the deliberate use of constructive alignment not only as a curriculum design principle, but as a mechanism for inclusive learning. Through the careful synchronisation of learning outcomes, culturally responsive content, and higher-order, scenario-based assessments, the module creates equitable opportunities for diverse postgraduate learners to demonstrate understanding in ways that are both meaningful and authentic. In this sense, student diversity is not treated as a logistical challenge to be managed across multiple time zones, but as a pedagogical asset. By enabling learners to draw on their own cultural and professional contexts, the module challenges Eurocentric norms and fosters a more globally relevant and humanistic learning community. Hence this framework empowered international postgraduate learners to bridge global theory with local realities.

At a broader level, this case study contributes to ongoing scholarly discussions on inclusive digital pedagogies by evidencing how intentional, constructively aligned design can enhance both engagement and academic performance in online postgraduate education. At the same time, the findings highlight areas for continued development, including supporting deeper engagement with complex ethical and emerging technological topics, and refining expectations around postgraduate-level design detail. These challenges, however, are integral to the iterative nature of responsive teaching.

Ultimately, this work highlights a key insight for higher education practitioners by reinforcing a powerful narrative: when digital learning environments are built with deliberate empathy, scaffolded clarity, and structural coherence, they do more than accommodate diverse distance learners, they actively enable them to thrive. The planned programme of systematic evaluation will further extend these insights, ensuring that the module continues to evolve as a robust, inclusive model for digitally mediated postgraduate education.

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