

“AdvanceHE

+ Global Impact Grants 2025



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Foreword

This collection of case studies represents the work of the winners of Advance HE's Global Impact Grants for 2024-25. This is the fourth year we have run the scheme and the winners were chosen from a competitive field of entries from 19 countries around the world.

Through funding small case studies, our Global Impact Grants are an opportunity for Advance HE members to share success stories about higher education projects that have had a demonstrable impact on their staff and/or students.

These case studies are directly aligned to our wider 'Member Benefits 2024-25' work that our members regard as key challenges in higher education:

- + Protecting inclusion in times of change
- + Securing student outcomes
- + Designing education for the future.

The projects are imaginative and focus on solving problems that our members across the world are grappling with. We hope that the insights the case studies offer will be extremely useful to other member institutions as they explore how successful projects could be applied in their context, benefitting their institutions, staff and students.

We are grateful to all our contributors for their expertise, diligence and inspiration and congratulate them all on their grant award.

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Protecting inclusion in times of change

Coffee Conversations – a relationship-rich approach to student success

Cassandra Iannucci, Deakin University, Australia

Deakin University's Coffee Conversations, a curriculum-embedded Students as Partners (SaP) initiative, is designed to strengthen teaching and learning by creating opportunities for real-time, relational feedback. Grounded in inclusive and dialogic pedagogy, the programme responds to growing calls for student engagement models that centre equity, belonging and human connections as core drivers of student success.

How does it work?

Coffee Conversations, launched in 2022, was embedded within Deakin University's Equity-First SaP programme. Situated within the curriculum and enacted throughout a teaching period, the initiative was designed to 'tighten the feedback loop' – enabling educators to adapt their teaching practice and enhance student learning experience in real time. It intentionally sought to disrupt hierarchical models of feedback and engagement by creating accessible, low-pressure spaces for ongoing dialogue between students and staff throughout a teaching period. Framed by Bell Hooks' engaged pedagogy (1994) and principles of relational pedagogy (Gravett, 2022), the initiative aimed to foster authentic, empowering and curiosity-driven conversations, particularly centring students from marginalised or under-represented cohorts.

When: Coffee Conversations are held weekly during the teaching term, ideally immediately following an on-campus teaching activity such as a lecture, practical or seminar.

Where: sessions take place in informal, neutral locations on campus – most often a café or in an outdoor area. The setting is intentionally chosen to be familiar, accessible and relaxed, reducing the formal power dynamics often associated with university spaces such as offices or classrooms.

Session duration: each session lasts approximately 45-90 minutes. Timing can be flexible depending on the flow of the conversation, the location and students' availability.

Who participates: each session involves a group of four to five students who are currently enrolled in that unit (otherwise known as a course or module). Students are rotated weekly, as much as possible, so that different voices are heard throughout the term. Participation is voluntary, and students are offered a complimentary coffee (or café beverage) as part of the programme.

How students are invited: before the first session, educators introduce Coffee Conversations during class, explaining its purpose and how it is embedded in the unit as a form of real-time, relational feedback. Following this overview, students are invited to participate in a personal and accessible way – typically through verbal invitations at the end of class, or individual conversations with students. For larger cohorts, a simple sign-up

system (such as a paper form, QR code, or online link) can be used to support logistics while maintaining a relational tone. This personalised approach helps increase participation, especially among students who may feel marginalised or are less likely to engage with traditional feedback mechanisms.

Structure and format: there is no formal agenda, script, or data collection. The conversation is student-led and open-ended. Educators may begin with gentle prompts such as: “What’s working well for you so far?” or “What would make this unit more engaging or clear?”. Although this programme is designed to support dialogic feedback and enable timely improvements to teaching and learning, conversations often extend beyond curriculum content – touching on assessment clarity, student wellbeing, career advice and available support services.

Closing the feedback loop: a core element of the programme – essential to building trust and fostering authentic dialogue – is not only making changes in response to student feedback, but also communicating those changes back to students each week. Letting students know how their input has shaped the unit reinforces that their voices matter and encourages ongoing engagement.

Approach and impact

Although originally implemented as a teaching and learning intervention, Coffee Conversations was underpinned by relational pedagogy (Felten and Lamber, 2020) and a student-staff partnership (Cook-Sather et al, 2014) approach. Given this foundation, it is unsurprising that the impacts of the programme extended well beyond pedagogical refinement.

Students and educators described a range of outcomes that reflect known drivers of student success – belonging, engagement, confidence and access to support (Strayhorn, 2019).

Students reported feeling more valued, “doing the Coffee Conversations made everyone feel really valued and heard and that we were an important part of the class and the course” (student). They were also more confident to contribute in class, “I’ve even had flow-on into my class discussions, with students feeling more comfortable to contribute” (staff), and more comfortable seeking help.

One staff member noted: “We had a conversation about that [one of the students needing help but not knowing how to ask for it] and a peer directed them to the support services... they went, and now that student has an access plan!” – an example of how the initiative served as a point of early intervention.

Students also articulated a heightened sense of belonging – an outcome that, while not the original design delivery, aligns with growing research that frames belonging as foundational to student success (Strayhorn, 2019).

One student shared, “I feel like Coffee Conversations was such a nice way to spend time with other students and also with the lecturer...it was really, really nice, a really nice way to

connect with everyone” (student). One staff member commented, “I changed from being ‘right, I need to get to my problem of practice’ and changed the focus to... creating that sense of belonging.” These findings mirror what scholars such as Strayhorn (2019) argue: that belonging, relational connection and the ability to navigate university spaces with confidence are key enablers of student retention and success, especially for those from equity cohorts.

Contribution to the sector

Its strength lies in its simplicity and adaptability. As a low-cost, high-impact model, Coffee Conversations provides a tangible example of how institutions can centre connection, care and co-creation within the fabric of curriculum delivery – without requiring large-scale structural reform. It offers a practical, replicable approach for universities seeking to embed equity-first, relational feedback practices within everyday teaching, which can simultaneously enhance pedagogical quality and student success.

While initially developed to improve real-time teaching and learning through dialogic feedback, the initiative’s relational foundation also fostered belonging, engagement, self-efficacy and connection to support – outcomes closely aligned with known drivers of student retention and success.

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Advancing cultural competence in healthcare education: Indigenous AI avatars as a model for diverse cultural learning

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Background

Healthcare education faces challenges in preparing culturally competent practitioners who can effectively support diverse populations (Bainbridge et al, 2015; Durey and Thompson, 2012). Conventional cultural competence training often relies on limited human role-players or passive learning methods, creating significant gaps in authentic cultural education. This challenge is especially pronounced in Indigenous healthcare education, where sourcing authentic diverse role-players while ensuring respectful and accurate representation is especially difficult (Aziz et al, 2024).

Our case study demonstrates how we designed future-focused education by using artificial intelligence-powered virtual simulations to support the development of culturally competent health professionals. The ATLAS platform (Authentic Teaching and Learning Application Simulations), developed with pedagogical expertise, uses generative AI to simulate realistic conversations with virtual patients, providing a safe environment for students to practice cross-cultural communication with immediate feedback.

Project implementation

In the Faculty of Pharmacy and Pharmaceutical Sciences at Monash University, we developed "Kai", a virtual Indigenous Australian patient, co-designed with an Indigenous advisor. This initiative addresses the particularly challenging issue of finding authentic Indigenous role-players for educational simulations while establishing a replicable framework for culturally authentic learning experiences. The case was rolled out to students in February 2025.

Kai's development built on our proven track record with the ATLAS platform, created in response to student feedback highlighting limited opportunities to practise communication skills. Responding to this need, we created diverse simulation scenarios including history-taking cases, over-the-counter (Schedule 3) medicine consultations, and primary care practice cases for clinical communication skills examination (Figure 1). These implementations delivered a significant improvement in students' oral examination scores from 85.9% to 94.3%, establishing ATLAS as an effective educational tool (Lim et al, 2025).

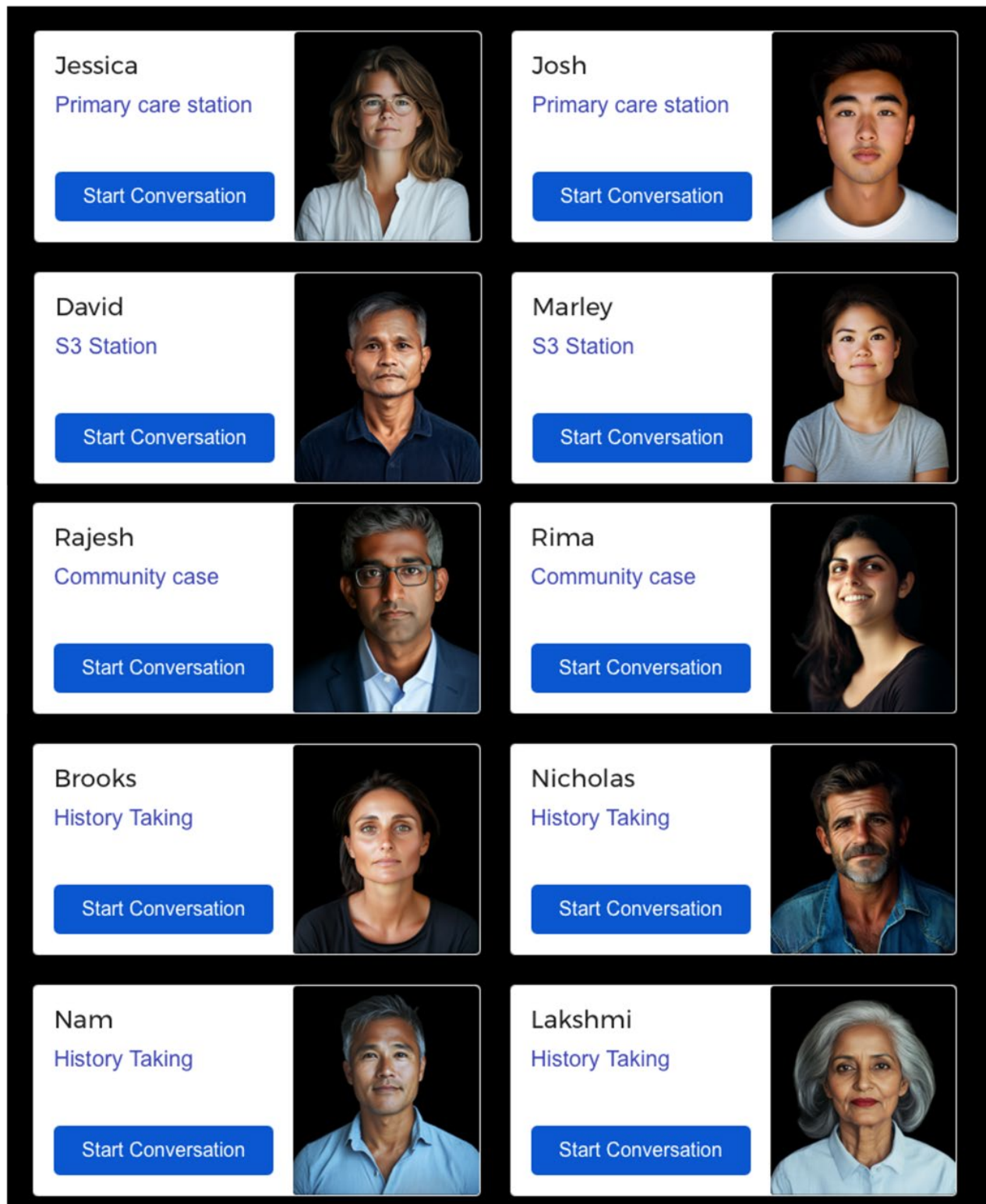


Figure 1. Collection of ATLAS virtual pharmacy patients representing diverse healthcare scenarios and demographics

We recognised that students had limited opportunities for authentic Indigenous health communication practice, identifying this as a significant gap in our cultural competence training. By integrating AI technology with Indigenous cultural knowledge, we created an Indigenous Australian patient avatar for pharmacy students, while developing a transferable methodology for future diverse patient simulations (Figure 2). The process revealed the need to create a better framework for the creation of these avatars and offered key insights in understanding the complexities of respectful Indigenous representation. Key performance indicators for the Kai pilot included student confidence ratings, portrayal authenticity and cultural sensitivity measures.

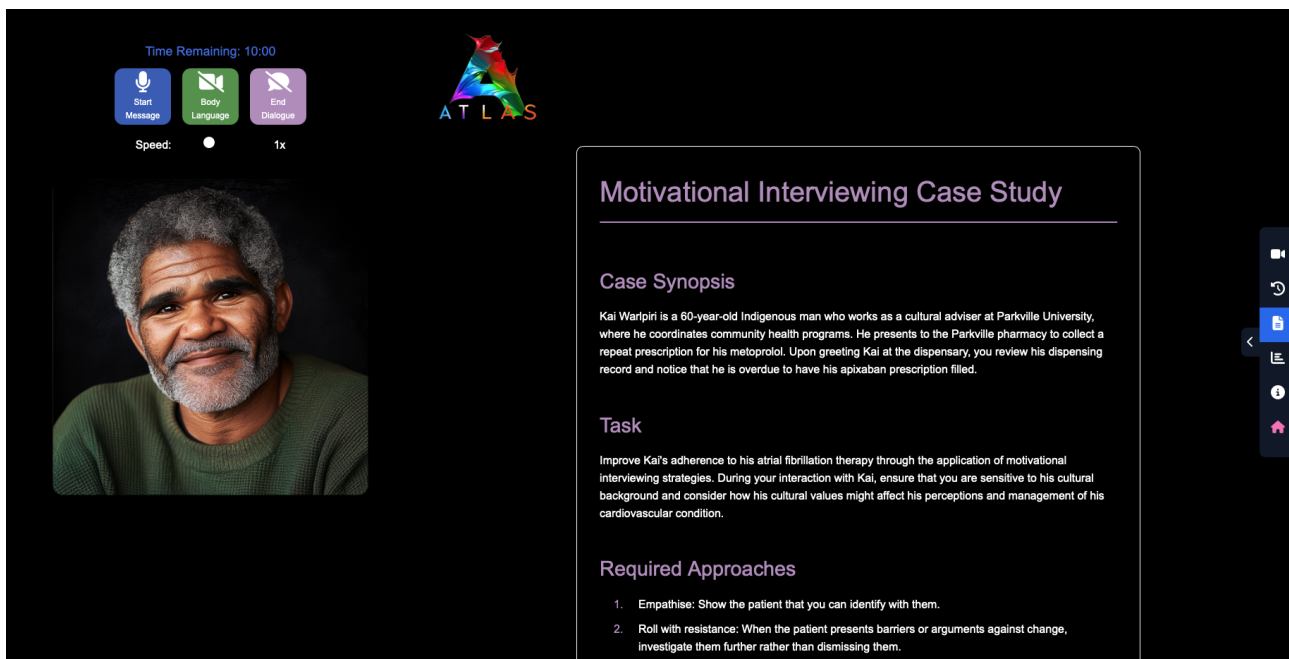


Figure 2. ATLAS interface for Kai, the Indigenous Australian virtual patient case

Impact and results

Our pilot with 53 pharmacy students found 91% rated Kai's portrayal as neutral to realistic and 57% reported increased confidence in Indigenous health communication. Students engaged with authentic consultations, otherwise difficult to access due to limited clinical placements with Indigenous communities. Staff reported opportunities for efficient individualised feedback without increased workload, as ATLAS delivered consistent, detailed feedback.

While these pilot study results are limited, they provide an important starting point for next semester's rollout and establish the groundwork for a more comprehensive mixed methods analysis. The work from this expanded study could create a blueprint for offering institutions an innovative model for inclusive patient simulation education design that is adaptable across disciplines.

Unexpected developments and ethical framework

The project's impact went beyond immediate educational outcomes, revealing complex ethical considerations in creating virtual Indigenous personas. This led to the recognition of a need for clear guidelines for Indigenous representation in educational technology. Through consultations with professionals and academics of indigenous backgrounds, we recognised the importance of moving beyond tokenistic representation to create authentic, respectful educational experiences.

In response, we began developing an Indigenous Avatar Development Framework to address concerns around cultural appropriation, stereotypical representation and meaningful inclusion. This ongoing framework will establish protocols for community representatives, guidelines for avoiding visual stereotypes and processes for integrating culturally significant elements with appropriate approval. Indigenous leadership is central to implementing these resources.

A key insight from our discussions with Indigenous colleagues was the importance of avoiding tokenism by acknowledging the cultural differences within Indigenous communities. For the expanded rollout of Kai later this year, we will emphasise that this represents one example from a highly diverse Indigenous population. This approach aims to challenge stereotypes and highlight the rich diversity within Aboriginal and Torres Strait Islander communities. More broadly, these insights will guide how we deliver cultural competence education. We highlight that not all Indigenous patients may identify as such in healthcare settings, and that cultural background may not always influence the care they require.

Grant funding impact and community partnership

This grant will remunerate Indigenous advisors for their expertise in advising on specific care needs of Indigenous patients, ensuring that community knowledge is properly valued and compensated, while also aiding us in globally disseminating this work at conferences. This financial support will allow us to engage meaningfully with Indigenous professionals and academics, moving beyond consultation to genuine partnership in developing educational resources.

We are currently in consultation with Indigenous professionals and academics to further refine our approach and expand our understanding of appropriate representation. We hope to engage an Indigenous academic to lead both the research and avatar development. Our goal is to have a comprehensive framework by the year's end. These ongoing partnerships ensure that our approach evolves while maintaining cultural integrity while serving educational purposes.

Broader impact and future directions

We will use the evaluation data and student feedback to refine our approach to cultural competence education, ensuring future cohorts are better equipped for practice. The planned rollout to 277 students will provide a more comprehensive study, allowing deeper exploration of student impressions, ethical considerations and comfort levels with Indigenous

health communication. This larger cohort will enhance evaluation of the educational impact and refine culturally sensitive simulation-based learning.

Conclusion

This project demonstrates that meaningful innovation in healthcare education requires more than technological advancement – it demands genuine community partnership, ethical frameworks and ongoing commitment to cultural integrity. Our work has fostered deeper understanding within our team about Indigenous perspectives in healthcare education, creating conversations about representation and ethical practice that may extend beyond our immediate context to influence broader institutional approaches.

Collaborators

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Empowering neurodiverse learners: a flexible teaching toolkit for times of change

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Introduction

The University of Kurdistan Hewlêr (UKH) and Salahaddin University carried out a six-month pilot (January to June 2024) to make sure autistic, ADHD and dyslexic students can keep learning even when teaching modes change. The project created a low-cost toolkit that any lecturer can apply in a face-to-face, blended or fully online class, offering a quick route to more inclusive practice.

Context and rationale

Across Iraq many students still face unstable timetables, power cuts and ad-hoc switches between on-campus and virtual teaching. Neurodiverse learners are hit hardest because sudden changes amplify sensory overload and executive-function stress. UKH tracked a 30% rise in support requests from this group after the 2023 earthquake closures. We therefore set a clear goal: cut reported academic stress by at least 40% while holding or raising grades.

Project design and implementation

An interdisciplinary team of two computer science lecturers, a disability specialist, three student mentors and a learning designer ran the project in three phases.

- + Phase 1 – Co-design (Jan–Feb): focus groups with 28 neurodiverse students identified the biggest pain points. Staff reviewed the findings and set key performance indicators on stress, engagement and grades.
- + Phase 2 – Build and test (Mar–Apr): lecturers produced draft guidelines while the tech team added adaptive-feedback templates to Moodle. We trialled the material in two first-year programming modules (n = 112 students) and one English skills module (n = 87).
- + Phase 3 – Scale (May–Jun): after refinements we rolled the toolkit out in eight further classes, ran three staff workshops and opened self-paced online training that remains available on the institutional VLE.

Toolkit components

The toolkit was designed to be practical, easy to adopt and based on direct student feedback. Each component targets a common challenge faced by neurodiverse learners and offers simple ways for staff to make courses more inclusive without overhauling their entire teaching style.

- 1 Flexible course rules – sample policies that let students pick from video, slide, poster or oral submissions and request two automatic 48-hour extensions per term.
- 2 Sensory-friendly spaces – checklists for lighting, background colour and caption quality, plus instructions for low-stimulus breakout rooms in Zoom and Teams.
- 3 Adaptive feedback – rubrics in Moodle that convert lecturer comments into simple traffic-light dashboards, plus peer-review prompts written in clear-language style.
- 4 Executive-function aids – ready-to-use Trello boards, printable weekly planners and instructions for chunking multi-step tasks into smaller deadlines.

Staff development and engagement

Sixty-two academics attended orientation workshops and 214 completed the 40-minute online version. The course used short demo videos, paired practice and a pledge in which staff chose at least one change to apply that week. Line managers monitored uptake and shared success stories in a Teams channel. Follow-up polling after eight weeks showed that 85% had maintained their chosen change and 54% had added a second modification.

Impact on students

A post-pilot survey (response rate 74%) showed that 80% of neurodiverse participants felt “much less stressed” and 78% reported clearer feedback. Mean exam scores in the programming modules rose from 61% in 2023 to 69% in 2024, while absence fell from 11% to 6%. Qualitative comments confirmed the improvement: “Having the Trello board meant I never lost track,” wrote one autistic student; another said, “Quiet Zoom rooms let me join discussions without panic.”

Impact on staff and institution

Of the lecturers, 70% said they felt more confident about adjusting deadlines and formats. The Dean has now made flexible course rules the expected default in new syllabus approvals. By using open-source tools we kept direct costs under \$600 and saved an estimated 120 staff hours per semester through faster marking and fewer extension emails.

Lessons learned and transferability

Co-design with students at every stage was the single biggest success factor. We also learned that small, clearly explained tweaks outperform large system overhauls. Because the toolkit is packaged as editable Google Docs and Trello templates, any university can adapt it in under two weeks. The material is now shared on a Creative Commons licence and has already been downloaded by five regional colleges.

Future directions

UKH will track long-term grade retention over the next two years and build an Arabic-language version of the templates. A funding proposal is in progress to integrate AI-driven reading-level adaptation into Moodle quizzes, further widening access.

Alignment with sector priorities

The project advances the Advance HE theme of Protecting inclusion in times of change, the UKH strategic plan on widening participation and UN SDGs 4 and 10. It offers a tested, evidence-based template for institutions seeking fast, cost-effective ways to support neurodiverse learners during uncertain times.

Across the student lifecycle - The University of Queensland's Young Achievers Program

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Established in 2009, The University of Queensland's Young Achievers Program (YAP) empowers students to achieve their academic and career goals by recognising the value of their lived experience and systematically removing barriers to higher education. YAP is a comprehensive equity initiative that includes mentorship, financial support, tailored transition support and academic skills that help Queensland students to successfully transition to, participate in and graduate from university. Unlike traditional equity scholarship programmes, which focus primarily on financial assistance, YAP provides holistic, cohort-based support throughout the entire student lifecycle – from early engagement in secondary school through to graduation and beyond. This case study examines the programme's evolution, student demographics, impact and effectiveness in addressing educational inequity across Queensland.

Programme description

YAP targets students from low socio-economic backgrounds – prioritising those from rural, regional and remote areas – through a scaffolded approach spanning pre-access, access, participation and attainment student lifecycle phases. YAP operates within [The Queensland Commitment](#) (TQC) strategy framework, aiming to remove personal, financial and geographical barriers facing Queensland students.

YAP's goals include:

- + improve students' confidence, capability and motivation to access university
- + develop foundational skills supporting academic attainment
- + increase awareness of career goals
- + enable successful transition, participation and degree completion.

To achieve these goals, YAP provides:

- + financial scholarships and resources
- + residential accommodation scholarships
- + dedicated welfare support and campus space
- + mentoring across the student lifecycle
- + casual employment opportunities while studying

- + leadership development opportunities
- + co-curricular activity funding.



Selecting students involves identifying academically motivated students who want to attend university but face significant barriers in their educational journey. Rather than targeting the highest academic achievers, the programme focuses on students who demonstrate consistent effort and sound results. Given that the programme offers opportunities alongside schooling commitments – including mentor engagement, camps, academic skills development and volunteering – selection prioritises students who can manage these activities while maintaining their academic focus. Assessment considers academic motivation, school effort, personal circumstances, goals and aspirations. Close partnerships with schools ensure programme awareness and support for students to submit their own applications.

Initially, the programme focused heavily on recruitment of school students and building their engagement through cohort-building activities in their school years. However, subsequent data analysis revealed a critical gap: while YAP was successfully attracting students to the University, retention rates and academic progression among participants were falling below those of their equivalent peers. This finding prompted a strategic pivot in programme delivery. Over the past two years, significant investment has been redirected toward supporting students' transition and success at university. The enhanced support framework now includes a bespoke pre-orientation transition programme designed specifically for YAP participants, comprehensive mentoring programmes, dedicated welfare support integrated with ongoing cohort-building activities, study spaces on campus to foster both academic

focus and peer connection, and expanded employment opportunities that provide both financial support and professional development experience.



Methodology

This case study draws on programme data spanning 2009-25, including enrolment records, entry scores, first year retention rates, graduation statistics and academic progression (grades). Performance metrics are benchmarked against three comparison groups: university-wide domestic student averages, low-SES student cohorts, and regional/rural/remote student populations.

Findings and analysis: quantitative outcomes

Student profile and entry characteristics

Our findings reveal that YAP participants face significant socioeconomic barriers. In 2024, 91% of YAP applicants identified with at least one of the following challenges, while 63% reported experiencing two or more of:

- + income/housing insecurity
- + family caring responsibilities
- + living with disability
- + disrupted learning

- + living with chronic health conditions
- + domestic/family violence.

Additionally, YAP participants who proceed to undergraduate study at the University of Queensland have slightly lower average university entrance scores compared to other students being admitted to the University. These scores are based on their secondary schooling results, and so they are more likely to begin their university studies with lower levels of academic preparation than many of their peers.

This profile validates the programme's effectiveness in targeting and attracting students who genuinely benefit from the programme's comprehensive support structure.

YAP growth and reach

YAP continues to expand its reach, from supporting 83 students in 2009 to supporting more than 1,600 participants (970 university enrolments and 408 graduates). Current enrolment data includes 334 continuing students and 231 in secondary school, indicating strong progression pathways.

Academic outcomes and retention

The programme shows measurable impact on student success metrics. Most significantly, first-to-second-year retention improved dramatically from 79.1% (2024) to 90% (2025) – exceeding the university domestic student average by 6.4 percentage points. This 10.9 percentage point improvement coincides with enhanced support structures implemented in 2023-2024.

Graduation trends have shown consistent improvement over time and 67 students graduated in 2024, representing an 8% year-on-year increase. These outcomes demonstrate the programme's effectiveness despite students entering with lower academic preparation and facing complex personal circumstances.

Programme enhancement impact

The 2023 support structure enhancements – expanded mentoring, targeted academic support, dedicated study spaces and proactive intervention systems – correlate with improved retention outcomes. This evidence-based approach to programme refinement demonstrates institutional learning and responsiveness to student needs, validating the comprehensive support model over traditional financial-support-only approaches.



Recommendations

Continued investment in support services: the correlation between enhanced welfare support, peer mentoring and improved retention rates suggests these components should remain central to programme design and receive ongoing investment.

Expansion and replication: given YAP's success in meeting growth targets while maintaining quality outcomes, the YAP model should be considered for replication across universities.

Enhanced data collection: while quantitative outcomes are strong, developing more comprehensive tracking of long-term career outcomes, impact on school and community, and intergenerational effects would strengthen the evidence base for programme effectiveness.

Policy integration: YAP's alignment with the [Australian Universities Accord](#) positions it well to support national equity policy.

Conclusion

As a critical component of the University's equity strategy and contributor to national education policy priorities, YAP demonstrates how universities create meaningful social change through strategic, sustained investment in underserved communities while advancing institutional mission and national education goals.

YAP is an excellent example of how comprehensive, lifecycle-based equity initiatives can achieve significant impact for students. YAP transforms individual lives and offers a compelling model for addressing educational inequity through holistic support that extends beyond financial assistance alone. The programme's strong retention rates, growing graduation numbers and sustained expansion indicate both immediate effectiveness and long-term viability.

Securing student outcomes

Empowering the 21st-century learner: a scalable and flexible approach to data literacy

Yalemisew Abgaz, Dublin City University, Republic of Ireland

Data is one of the most valuable assets in today's world, and data literacy and analytics – the ability to collect, analyse, communicate and apply data effectively – has emerged as an essential competency for the 21st century. In an era increasingly shaped by data and AI, individuals across all disciplines need to be equipped with the knowledge, skills and attitude to navigate this evolving landscape. Data literacy is no longer exclusive to data analysts and computer scientists; it is a fundamental competency for citizens engaged in any discipline or profession.

Higher education institutions face significant challenges in delivering data literacy education at scale while maintaining quality and relevance across diverse disciplines. Traditional approaches often suffer from inconsistent delivery across programmes, resource-intensive implementation requirements, difficulty adapting to varied student backgrounds, limited integration with disciplinary contexts, and inability to scale without compromising quality. This case study presents our innovative solution to these challenges through a novel microcurricula approach to data literacy education.

The microcurricula approach

Recognising the urgent need for scalable data literacy education, we designed, developed and implemented a university-wide Data Literacy and Analytics for the 21st Century initiative at Dublin City University (DCU). This initiative is grounded in contemporary educational theories, and the ABC curriculum design and Universal Design for Learning (UDL) principles, which emphasise multiple means of engagement, representation and action/expression. Through extensive consultation with academic stakeholders, data literacy experts and industry representatives, and careful analysis of established data literacy frameworks, we identified seven core data literacy competencies and corresponding learning outcomes. These competencies were further validated with curriculum design experts and categorised into knowledge, skills and attitudes towards data literacy. In addition, three tools for teaching data literacy skills were identified based on industry requirements and programme affiliations, including Spreadsheet, Python and R.

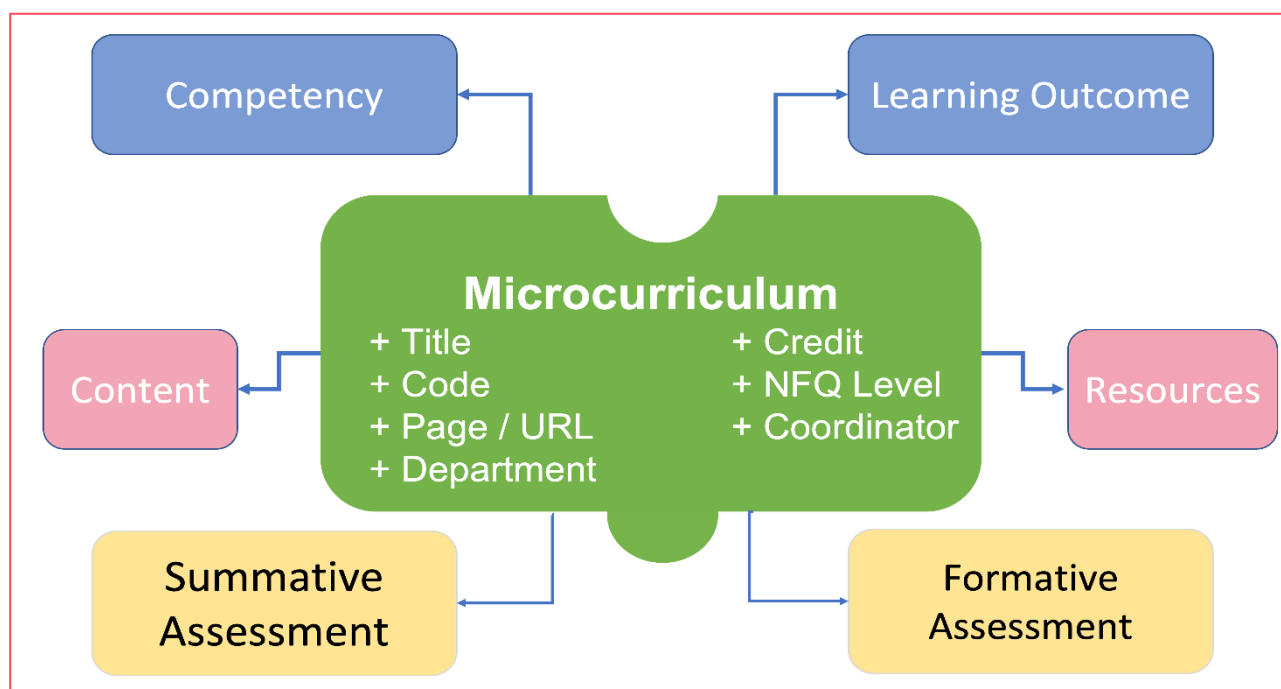


Figure 1. Microcurricula structure and components

The microcurricula innovation

At the core of this initiative is a **novel microcurricula approach** which transforms how data literacy education is delivered across the university. A microcurriculum addresses a single data literacy competency with specific learning outcome, carries a small unit of credit (0.5-1.0 ECTS), and contains complete module content, activities, practical tasks, and assessment mechanisms (Figure 1). The microcurricula can be delivered as a standalone 2.5, 5.0, 7.5, or 10 ECTS module or can be integrated into other existing modules. This modular design allows for unprecedented flexibility in deployment while maintaining pedagogical integrity and assessment standards.

Implementation

The implementation followed a systematic and evidence-informed process with extensive consultation with programme chairs and industry partners identifying specific data literacy needs across disciplines. This resulted in the development of seven data literacy competencies mapped to specific learning outcomes and assessment criteria. Interactive learning materials were created following active learning principles and UDL guidelines. Robust and scalable assessment strategies were developed, featuring automated online quizzes drawn from our extensive and up-to-date question banks, with randomisation to maintain assessment integrity. Two implementation pathways were established: standalone approach, where combined microcurricula into a five ECTS module is delivered; or integrated approach where one or more microcurricula is embedded into existing disciplinary module where appropriate (see Figure 2). Programmes could select the relevant pathways (spreadsheets, Python, or R) based on disciplinary requirements, ensuring relevance while maintaining consistent learning outcomes.

The implementation required significant cross-institutional collaboration involving DCU Studio for content development and technical integration, the Teaching Enhancement Unit for pedagogical guidance, academic programme chairs for curriculum alignment, teaching assistants for scaled delivery support, and the module coordinator to coordinate and maintain the quality and consistent delivery of the module.

Impact: evidence and outcomes

This innovative approach has successfully enabled DCU to scale data literacy and analytics education across the institution.

- + **Student engagement:** more than 5,000 students enrolled across three academic years reaching more than 2,000 students annually.
- + **Disciplinary breadth:** implementation across more than 15 programmes spanning science and health, engineering and computing, education, social sciences and business school.
- + **Curricular integration:** 50% increase in participating programmes, with more than 20 modules now embedding the microcurricula.

A comprehensive evaluation data demonstrates significant impact on students learning outcomes:

- + 98% completion rate across all microcurricula implementations, substantially higher than typical online learning interventions in higher education.
- + 85% of students strongly agreed or agreed that the programme significantly improved their proficiency in core data literacy competencies, validated through direct assessment of learning artifacts
- + longitudinal pre-post surveys revealed significant gains in students' knowledge and confidence in applying data literacy skills across disciplinary contexts.

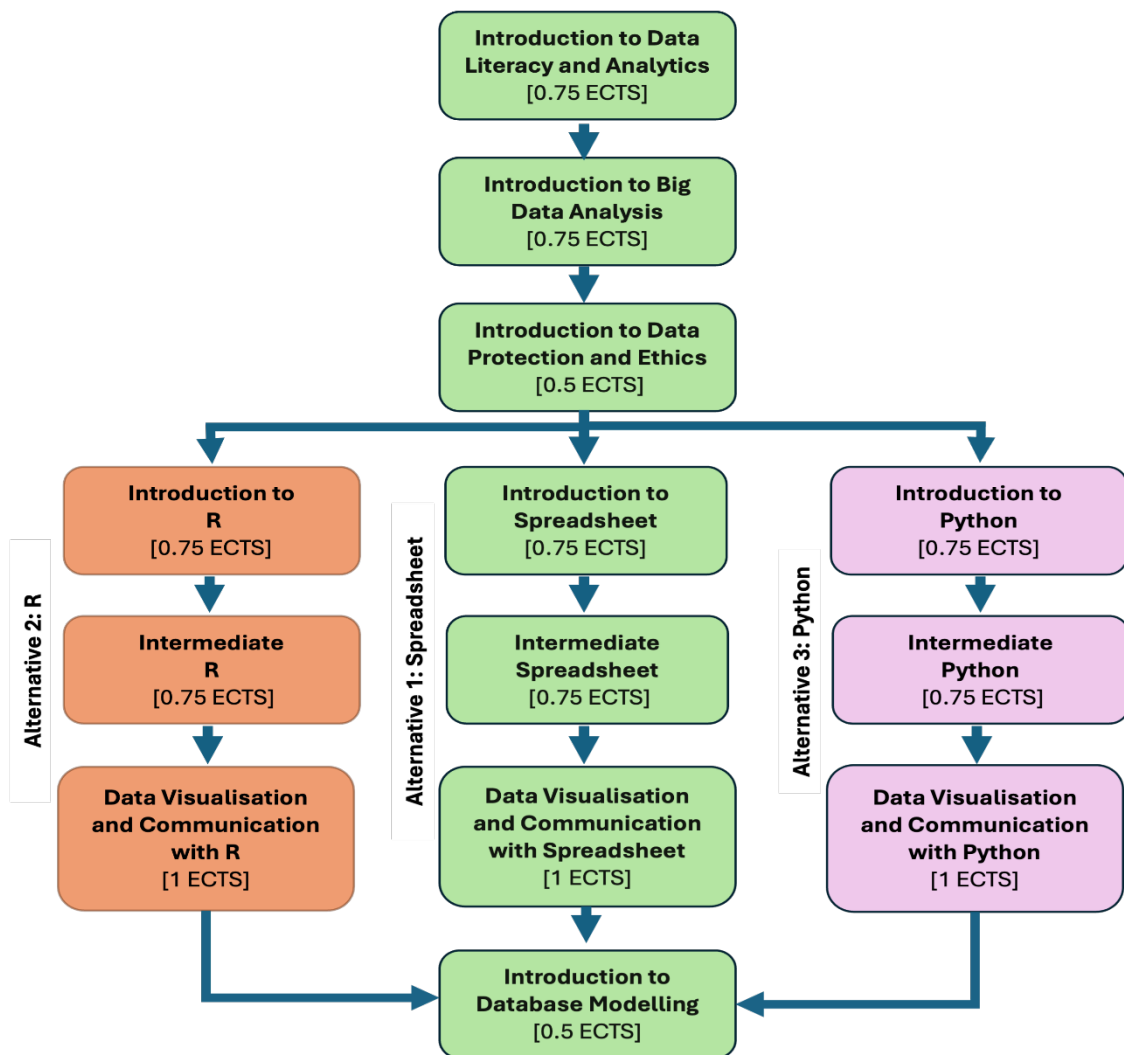


Figure 2. Data literacy and analytics. The diagram demonstrates the implementation of the module with possible composition of microcurricula into a five-credit module with alternative routes in Spreadsheet (middle), R (left) and Python (right).

Benefits to the university

This approach has yielded substantial benefits to the university beyond student learning:

- + it reduces redundant content development across programmes
- + it ensures consistent quality of data literacy education regardless of discipline
- + it serves as a model for potential expansion of the approach to other modules and institutions
- + it delivers efficiency with minimum staff requirement.

Challenges and lessons learned

To achieve this, four elements proved crucial to the success of the initiative:

- + strong institutional leadership and alignment with university strategy
- + cross-functional collaboration between academic and support units
- + evidence-based design informed by educational research
- + flexible implementation pathways adapted to diverse disciplinary contexts.

However, the implementation further revealed important insights:

- + regular assessment calibration is required more frequently than anticipated
- + technical infrastructure needs careful consideration for scaled online delivery
- + coordination between faculties and programmes emerged as a crucial component for successful delivery and future continuation.

Conclusion

The microcurricula approach to data literacy education represents a significant innovation in how universities can address the growing need for data literacy competencies across disciplines. By combining pedagogical rigor with flexible implementation pathways, the model enables programmes to deliver high-quality data literacy education at scale while maintaining relevance to diverse disciplinary contexts.

DCU's experience demonstrates that this approach can yield substantial benefits for students, faculty and the institution, while contributing to global efforts to enhance data literacy education. As the importance of data literacy and analytics continues to grow in academic, professional and social contexts, the microcurricula model offers a proven, adaptable framework that other institutions can adopt and adapt to their own contexts.

Developing tomorrow's global healthcare professionals: integrating leadership skills in the undergraduate curriculum

University of Hong Kong

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The Li Ka Shing Faculty of Medicine at the University of Hong Kong (HKU) is the largest of its kind in Hong Kong. It currently offers seven undergraduate programmes to around 3,300 students and has approximately 2,100 postgraduate students who are either on research degrees or studying on taught postgraduate programmes.

Following civil unrest in Hong Kong and the onset of Covid-19 in 2019, a group of fourth year medical students took the initiative to conduct voluntary group tutorials for their junior colleagues. What started as a kind gesture to provide academic and emotional support to junior students during troubled times, soon became a permanent fixture of the faculty's teaching strategy.

Although Near-Peer-Teaching (NPT) is not a new phenomenon (Nelson et al, 2013), the tremendous benefits that emerged from this enterprise soon became apparent to academic staff as well as to the students. As the number of students attending these NPT sessions grew, staff started collaborating with student teachers, designing resources and providing teaching guidance. Over time, staff and students co-developed a series of dedicated workshops and assignments for the student teachers, leading to the establishment of a Peer Teaching Certificate Programme (PTCP). This programme develops students' abilities to lead educational activities in clinical (for example, bedside teaching) and academic settings (for example, small-group facilitation). Through modules on pedagogy, feedback delivery, communication and reflective practice, participants gain hands-on experience in peer teaching and critical analysis. Successful completion of the programme results in certification to independently conduct tutorials and discussions. All students must complete this certificate in order to act as NPTs.

Students from across the undergraduate programmes, including medicine, nursing, pharmacy and Chinese medicine, soon joined the NPT pool and they now play a vital part in

facilitation support. In particular, the global scale of the faculty's Interprofessional Education (IPE) programme necessitates innovative solutions to meet facilitator demands. The NPTs have created a sustainable means for the faculty to address acute staff shortage. In addition, the training prepares future generations of health care workers to teach colleagues and provides the NPTs with additional leadership and inter-cultural competences; they co-lead sessions and facilitate team discussions of students from diverse geographical locations joining IPE.

Between 2020 and 2024, NPTs participated in 144 dissection sessions and conducted 591 hours of (supervised) teaching. In total, the faculty now has 184 NPTs registered – all of whom have been awarded the PTCP.

The NPT programme plays a significant role in integrating leadership skills in the undergraduate curriculum. Students learn how to prioritise and negotiate content, how to co-teach with colleagues, and how to identify and meet educational needs in their fellow students. Ideally, undergraduate students within the healthcare professions need some preparation for their future roles as global medical educators, but the current curriculum allows little space for this to happen. The NPT programme provides students with basic teaching skills and strategies that build up their confidence in taking on the role as educators. The programme embraces the saying that “the best way to learn is to teach” and, despite navigating a packed curriculum, students accumulate many teaching hours over their years of study.

To reward and recognise the NPTs' contribution to the faculty's culture of teaching and learning, the Student Teaching and Reflection (STaR) programme was accredited by Advance HE in 2023 and launched later the same year. Having registered a minimum of 25 supervised hours of teaching undergraduates either within the university or on the hospital wards over a maximum of three years, students can gain Associate Fellowship of Advance HE. Guided by a qualified mentor, students compile a 1,500-word teaching portfolio aligned to Descriptor 1 of the Professional Standards Framework (PSF). Since the STaR programme's inception, 14 undergraduate students have been awarded AFHEA and 85 students are registered on the programme supported by 39 qualified mentors. The success of the STaR programme has been somewhat surprising to the team. The healthcare programmes are intellectually demanding and the curricula are packed, but still students take the time to explore and reflect on their teaching within the Professional Standards Framework. Once students have gained their AFHEA award, some opt to co-facilitate the mandatory workshops for subsequent applicants where they generously share their experiences with fellow students and mentors.

One unexpected benefit of introducing the STaR programme is the way it has brought discussions of teaching and learning to the forefront within the faculty. As students with AFHEA co-facilitate workshops for subsequent AFHEA applicants together with staff, they explain the Professional Values and Core Knowledge to their fellow students. This in turn feeds into students' reflections on their own learning at HKU and generates numerous dialogues between staff and students, informing the teaching strategies within the faculty.

The mentors are key to the success of the programme. The one-to-one mentoring of the NPTs ensures students are continuously supported as they compile their portfolios and continue learning through their teaching.



Figure 1: Near-Peer Anatomy Teachers of the STaR programme in action (green scrubs).



Figure 2: Undergraduate students exploring the Professional Standards Framework during a mandatory workshop.



Figure 3: An undergraduate AFHEA holder sharing his experience with his professor and fellow students

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Embedding sustainability through creativity: a competition-based learning approach in business education

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Introduction

As the global community accelerates efforts to achieve the United Nations Sustainable Development Goals (SDGs), higher education institutions are increasingly called upon to prepare students not only with professional knowledge but also with the values, competencies and agency needed for future leadership in sustainable development. Business education, in particular, has a critical role to play in this mission. While students may possess basic awareness of sustainability concepts, they often lack the opportunity to engage meaningfully with these issues in practical and personally relevant ways.

In response, we designed an innovative pedagogical initiative within the Creativity and Innovation Management course, integrating Education for Sustainable Development (ESD) through a Competition-based Learning (CBL) framework. This applied, student-centred approach bridges theoretical concepts in creativity, innovation management and sustainability with real-world action. Students develop foundational knowledge in creative problem-solving and innovation through lectures, workshops, team activities, games and role-plays, and then collaborate to produce a final project – short creative videos that demonstrate how specific SDGs can be embedded into everyday life. Importantly, students also design and implement promotional strategies to maximise their videos' outreach and impact, ensuring the learning extends beyond the classroom. The final outputs are submitted to the university's SDG Action Short Video Contest, providing authentic feedback, public visibility and a platform for meaningful engagement with sustainability challenges.



Figure 1: Students participating in a hands-on, creative class activity: a paper airplane competition designed to demonstrate the principles of creativity, problem-solving and innovation in action

By combining CBL with sustainability-focused content, the course aligns with the Sustainable Development Framework and contributes directly to multiple SDGs. It fosters critical thinking, collaboration and student agency – core competencies for sustainable citizenship and future leadership. The competitive element mirrors real-world business dynamics, where innovation often arises from the interplay between cooperation and competition. This initiative demonstrates how business education can be reimagined to secure transformative learning outcomes and inspire students as changemakers in a sustainable future.

Initiative, scope, deliverables and timeline

The initiative was implemented during the autumn 2024 semester as a structured, semester-long learning experience designed to operationalise creative problem-solving and sustainability within a business education context. Students engaged in targeted sessions on creativity and innovation management theory, design thinking, communications, SDG literacy and collaborative problem-solving, before applying this knowledge in team-based video projects that translated global goals into local, campus-based actions.



Figure 2: Students engaging in an interactive learning activity using Kahoot! – a platform integrated into the course to stimulate engagement, encourage participation and enhance learning outcomes

The primary deliverables were 12 student-produced videos, each showcasing creative interpretations of SDG implementation in daily life. These outputs were evaluated through internal assessment and external recognition via the university's SDG Action Short Video Contest, giving students a platform to share their work with wider audiences and demonstrate how academic learning can drive tangible impact.



What does Equality mean to you? #NYCU, #NYCU_SDGs, #2024_NYCU_SDGs短影音競賽, #NYCU_永社辦

Figure 3: Students' SDG video projects showcased on YouTube, illustrating diverse, creative and practical actions for sustainability through small, everyday behaviours on campus.

Impact on students

The initiative achieved both measurable and meaningful outcomes. Quantitatively, 100% of student teams (6/6) submitted final projects, with four teams (63%) earning awards in the university competition, including first prize. All teams also presented their work in a formal setting, articulating their creative process, teamwork and learning outcomes. Course evaluations reflected strong student satisfaction, with an average rating of 4.68 out of 5.00.



Figure 4: Students presenting their SDG video projects, sharing insights into the creative process, the problem-solving tools applied, teamwork strategies, promotional strategies and key learning takeaways from the experience.

Qualitative data demonstrated a shift in students' understanding, motivation and sense of agency. Over 90% of students reported increased engagement with sustainability issues, enhanced collaborative and creative skills, and a greater awareness of their potential to make a difference through small, meaningful actions. Representative student comments include: *"This method inspired deeper thinking about my role in sustainability,"* and *"Working in teams competitively motivated us to creatively apply SDGs to real-life situations."* Other reflections include:

"Before this course, I viewed the SDGs as broad, idealistic goals that were mostly applicable at a governmental or organisational level. However, the discussions and assignments in this course highlighted how even small innovative ideas can contribute to these goals, especially in a localised context like a campus."

"Learning about the SDGs in a practical context, such as through the competition and video assignment, helped me see how small, actionable steps can align with global goals. The course encouraged me to think about the SDGs not as abstract ideas but as challenges we can address through unique perspectives and solutions."

"The video production task provided a unique opportunity to think critically about how these global goals can be addressed through concrete, actionable steps. It encouraged me to consider ways to effectively communicate and inspire others to engage with these goals."

Students also reported a greater sense of responsibility in their daily lives, with several noting changes in behaviours such as reducing single-use plastics and making more sustainable food choices. The project fostered growth in critical thinking, creativity, teamwork and ethical responsibility – competencies central to the ESD framework.

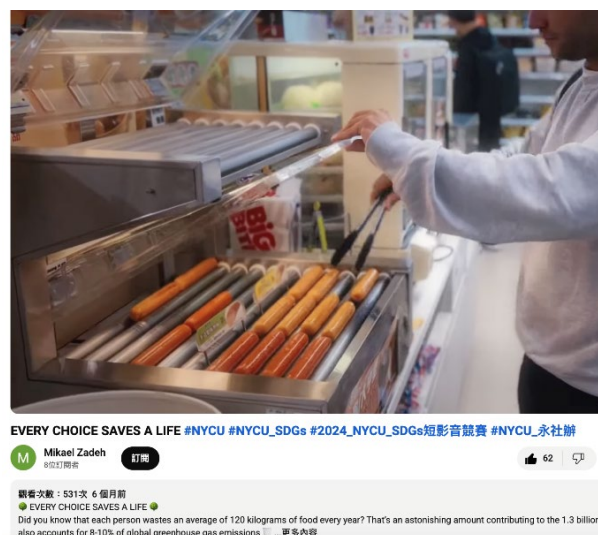


Figure 5: Students' SDG video projects shared on YouTube, showcasing practical sustainability actions with creative storytelling. These videos reached a wide audience, with individual views ranging from 200 to over 1,300 within a month, demonstrating the potential of student-led initiatives to promote sustainability awareness and inspire action.

Conclusion

This case study demonstrates how competition-based, experiential learning can secure meaningful student outcomes in sustainability education. By embedding the SDGs into a course structure that balances theoretical knowledge with creative, collaborative and competitive tasks, students gain not only conceptual understanding but also the confidence, skills and agency to act. The initiative offers a scalable and transferable model for embedding ESD into business curricula, demonstrating how thoughtfully designed pedagogy can transform students from passive learners into active changemakers.

This model has the potential to inspire and guide other higher education institutions seeking to integrate sustainability into their curricula, promote transformative learning and prepare students for leadership roles in a sustainable future. It reinforces the role of business education not only in preparing students for employment but in empowering them as responsible, reflective and creative contributors to global goals.

- + Explore students' SDG Action Short Videos, Learning Reflections, and Group Presentations: <https://padlet.com/siriratlim1/creative-i-m-2024-class-sdgs-action-videos-g3u0hiwshu9zxpqk>

Acknowledgement

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From exam halls to hackathons: authentic learning through competitive assessment in software engineering

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Our challenges – aligning academic assessment with industry needs

The dynamic software engineering (SE) field demands agile, collaborative practitioners adept at real-world problem solving – qualities traditional assessments often overlook. Since joining RMIT University Vietnam in 2022, we have identified a gap between some curriculum aspects, particularly assessments, and tech industry demands. For instance, our iOS Development course (COSC2659) needed updates to adopt the industry-standard Swift programming language, replacing outdated Objective-C language. Similarly, COSC2767 – System Deployment and Operations lacked modern Continuous Integration/Continuous Deployment practices, leaving students unprepared for Vietnam's industry needs. Discussions with my programme manager and colleagues confirmed these findings and underscored the need for curriculum updates to reflect industry standards.

This case study introduces an innovative pedagogical approach, developed and refined over three years, replacing traditional final exams in key SE courses with immersive, competitive hackathons. Grounded in Problem-Based Learning (PBL) (Hmelo-Silver, 2004) and Collaborative Learning (CL) (Smith and MacGregor, 1992), the approach reimagines assessment as an active, engaging experience. It directly supports the Securing Student Outcomes grant sub-theme by enhancing student learning, fostering industry-relevant skills and preparing future-ready engineers.

Our approaches – bridging the academia-industry gap

Conventional SE assessments, such as quizzes and timed exams, often fall short in preparing students for real-world professional demands or engaging them meaningfully. These methods rarely assess students' ability to apply knowledge to complex, open-ended problems, collaborate effectively, or innovate under pressure – all vital industry skills. Moreover, rapid technological evolution quickly made static assessment content outdated.

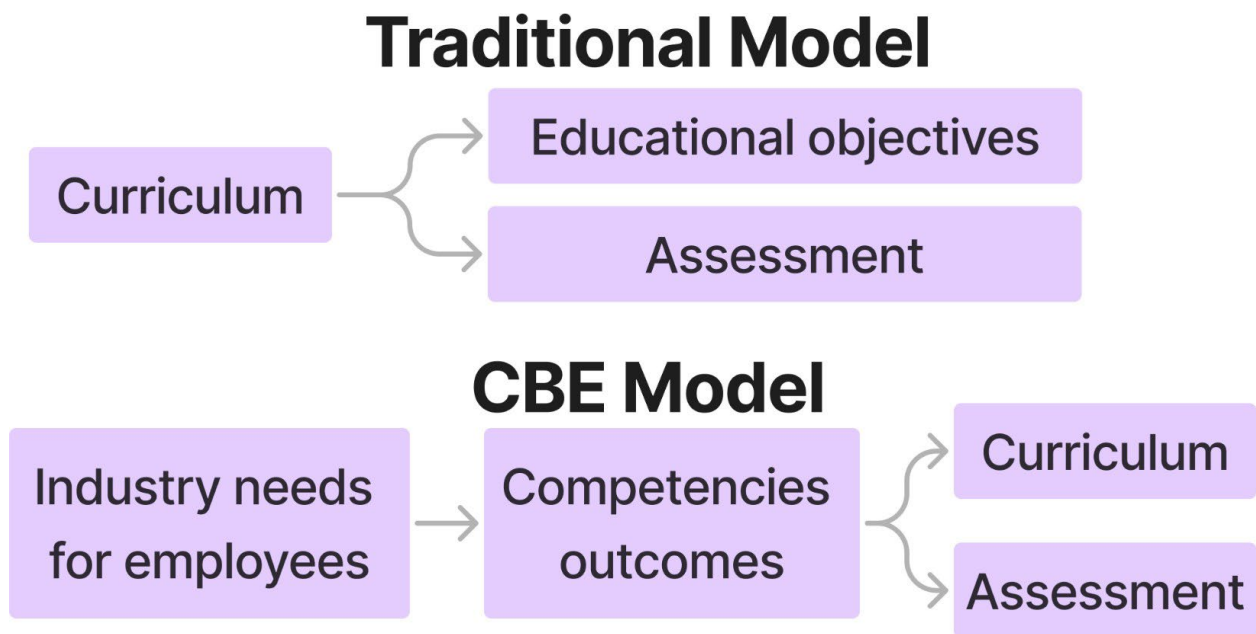


Figure 1. Comparing traditional and competency-based educational (CBE) models

To align assessments to industry needs, we adopted the Competency-Based Educational framework (Gruppen et al, 2016), emphasising specific, industry-relevant skills over primarily theoretical knowledge (Figure 1). Our approach includes three key steps:

- 1 Analysing 100 job descriptions from Vietnamese recruitment platforms (ITviec, VietnamWorks, LinkedIn Jobs) to identify high-demand skills and technologies sought by global corporations (Samsung, TSMC, BOSCH) and local companies (FPT, VNG, Viettel).
- 2 Consulting industry professionals from these organisations to ensure assessment and course content relevance and alignment with current industry practices.
- 3 Integrating updated, industry-relevant materials with Industry Embedded Activities (RMIT Vietnam, 2025), including hands-on, industry-partnered projects as core assessment strategies. This comprehensive approach ensures courses and assessments address identified gaps, equip students with essential competencies and prepare them for real-world industry challenges.

Our Innovation – the hackathon-as-assessment model

Building on the above approach, this shift led to more authentic assessments featuring industry-based topics centred on real-world tasks. However, content alone does not maximise impact; the format of assessment plays an equally critical role. Recognising this, we introduced an innovative assessment model centred on industry-aligned hackathons. Specifically, the hackathon-based assessment model embeds the following pedagogical principles:

- + **Problem-Based Learning (PBL):** students address complex, open-ended requirements within a project-based context that mirrors real-world problem-solving
- + **Collaborative Learning (CL):** team-based hackathons encourage students to share knowledge, manage projects and draw on diverse skill sets, fostering essential collaboration and teamwork.

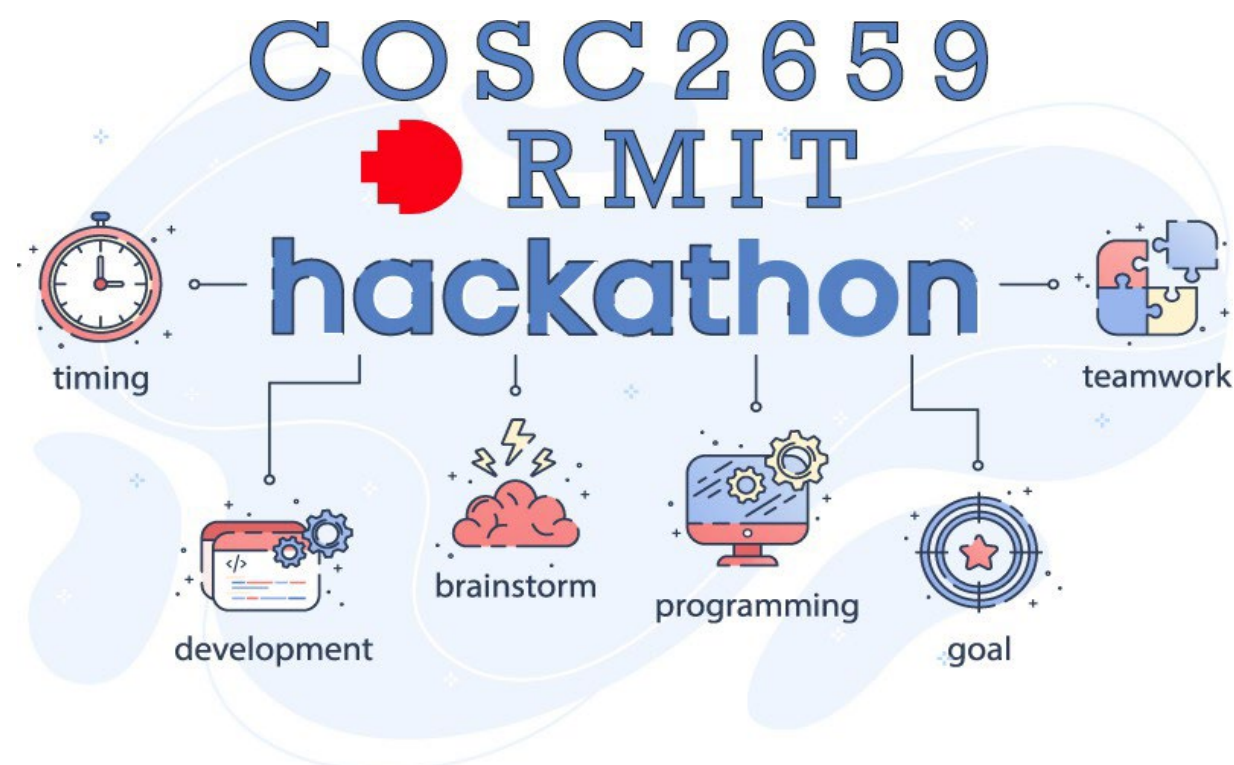


Figure 2. Hackathon banner in group assessment of the iOS development course

For example, to implement this model in practice, the final exam in the iOS Development course was replaced with a four-week collaborative hackathon (Figure 2). Within the theme of Social Impacts in Vietnam, student groups tackled specific challenges inspired by the UN's Sustainable Development Goals (Aurora and Mishra, 2019), encouraging critical thinking about technology's societal role. This format simulated a fast-paced, collaborative industry setting, fostering teamwork and communication. Engaging collaboratively on contemporary issues, students developed technical expertise and soft skills, energising the learning environment and increasing engagement. All of these impacts were reflected in student course evaluation feedback, with selected comments including: "the lecturer...creates competitions to keep students motivated", "the lecturer makes a real effort

to make the course interesting“, “the practical experience for the workforce“, “up-to-date content“, “lecture sessions are done with real life applicable projects”.

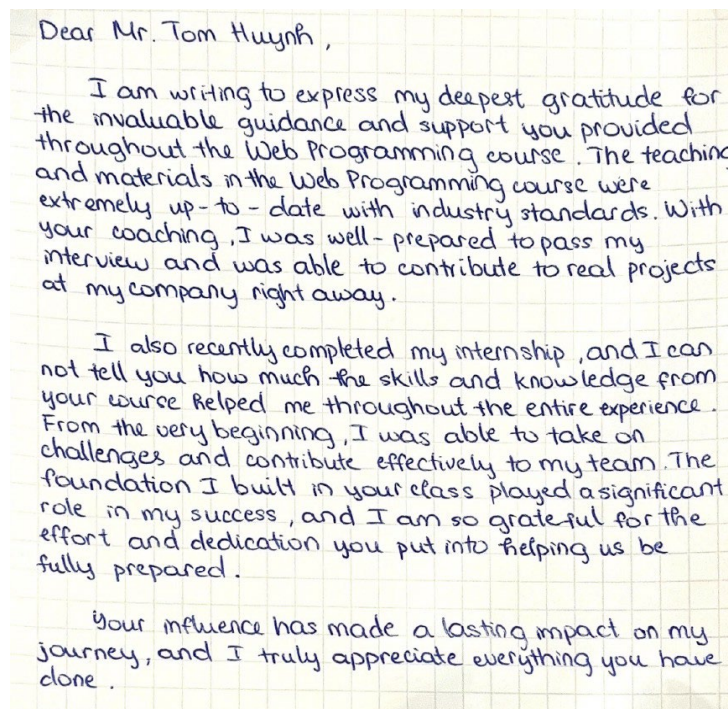
It is important to note that we did not just conduct a simulated hackathon in isolation; rather, we strategically aligned the assessment topic with real-world competitions such as the SheCodes Hackathon and the Apple Swift Student Challenge. This approach ensures contemporary relevance and provides students with pathways to submit their work to these competitions after the course.

Semester	Course	GTS	Note
2019-1	COSC2659	57.7%	Before my implementation
2020-1	COSC2430	78.8%	
2020-3	COSC2659	65.5%	
2021-1	COSC2430	62.4%	
2021-3	COSC2081	69.2%	
2022-2	COSC2659	99.2%	After my implementation of innovative teaching approaches and strategies showing a significant improvement in GTS and student satisfaction.
2022-2	COSC2767	100%	
2022-3	COSC2081	87.7%	
2023-1	COSC2430	83.9%	
2023-2	COSC2659	93.1%	
2023-2	COSC2430	88.6%	
2023-3	COSC2767	98.1%	
2024-1	COSC3058	86.7%	
2024-1	COSC3060	96.2%	

Table 1: Greatly improved and sustainably good GTS scores after our implementation

Impact and outcomes - securing student success

The hackathon-as-assessment model has yielded substantial, measurable outcomes, directly contributing to securing student success. In addition to the positive impact on student learning experiences, as reflected in the qualitative feedback, the approach has also resulted in consistently high teaching scores for the courses. Specifically, my delivery of COSC2659 and COSC2767 received excellent feedback for both quantitative and qualitative results, indicating a highly positive learning experience. Table 1 presents the changes in General Teaching Scores (GTS) for these courses before and after the introduction of our approach, highlighting a consistent improvement in student satisfaction and engagement as curriculum updates and hands-on teaching strategies were implemented. This positive impact is further illustrated by student endorsement. Thach Ho, a final-year Software Engineering student now employed as an iOS Engineer at HCLTech/ANZ, shared his reflections about my approach on the COSC2659 iOS Development course:



Dear Mr. Tom Huynh ,

I am writing to express my deepest gratitude for the invaluable guidance and support you provided throughout the Web Programming course . The teaching and materials in the Web Programming course were extremely up - to - date with industry standards . With your coaching , I was well - prepared to pass my interview and was able to contribute to real projects at my company right away .

I also recently completed my internship , and I can not tell you how much the skills and knowledge from your course helped me throughout the entire experience . From the very beginning , I was able to take on challenges and contribute effectively to my team . The foundation I built in your class played a significant role in my success , and I am so grateful for the effort and dedication you put into helping us be fully prepared .

Your influence has made a lasting impact on my journey , and I truly appreciate everything you have done .

Figure 3: Thank you letter from our student post-internship

"Your course gave me hands-on experience with Swift and helped me understand the full lifecycle of app development. The assignment projects were challenging but realistic and I felt fully prepared when I joined HCLTech as an iOS developer."

The positive impact of this approach extends beyond final-year students. For example, Ha Anh, a second-year IT student interning as a backend engineer at Whammy Tech, expressed her appreciation of my approach, stating: "The teaching and materials in the Web Programming course (COSC2430) were extremely up-to-date with industry standards" (Figure 3).

We are proud to share that, due to our alignment with the real-world hackathons mentioned earlier, outstanding students and project teams from our courses not only applied but also achieved notable success in several of these competitions. Specifically, two key achievements include:

- + **Apple Swift Student Challenge 2024 winner:** an exceptional student from my iOS course became a winner, the only one from Vietnam among 350 global recipients. This achievement, featured in leading Vietnamese national media such as Kenh 14 and VnExpress, powerfully validated our approach. His winning app is featured globally by Apple on the App Store.

- + **SheCodes Hackathon 2022 winners:** a female-led team we mentored won first prize, demonstrating the model's effectiveness in fostering excellence among diverse student groups (Figure 4). Phuc Nguyen, one of the winners, expressed: "...show my heartfelt gratitude and appreciation for your valuable guidance and encouragement on my life and career...to make a meaningful impact not only on my life but also on the lives of other students."



Figure 4: RMIT's student SheCodes Hackathon 2022 winners.

By providing a platform for students to develop industry-relevant skills and apply their knowledge to meaningful, real-world challenges, our innovative assessment approach has clearly demonstrated its impact on student success both academically and professionally.

These achievements not only validate our methodology but also inspire current and future students, instilling confidence in their ability to compete globally.

Peers and leaders have acknowledged my efforts to align teaching and assessments with industry standards. Quang Tran, Senior Programme Manager of IT and SE at RMIT Vietnam, praised: "Tom has successfully aligned curricula with industry trends, pioneered innovative assessments, and provided exemplary mentorship, enabling students to excel academically and professionally. His contributions have significantly elevated the quality of education in our programme."

Conclusion and future directions

The 'From Exam Halls to Hackathons' model significantly advances authentic assessment and preparation of SE students for the tech industry. By embedding PBL and CL within a competitive hackathon framework, we've created an engaging, motivating and demonstrably effective assessment for securing positive student outcomes.

We aim to expand this model to other SE and IT courses, continually refining hackathon themes with emerging global challenges and tech trends. Future plans include deeper integration of industry mentorship within hackathons, enhancing students' exposure to professional guidance. This approach is pivotal in transforming assessments into powerful catalysts for student growth, industry readiness and global impact.

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Reimagining assessment: a modern approach to student evaluation

Hussein Mohammed Ali, University of Kurdistan Hewlêr, Iraq

Introduction

Traditional high-stakes examinations concentrate a student's entire grade into one or two points in time, often exacerbating anxiety, encouraging surface learning and masking the spectrum of student growth. In response to UN Sustainable Development Goal 4 (Quality Education), our project tests a scalable, continuous evaluation model across a semester, blending daily AI-generated quizzes with team and individual projects. Supported by Advance HE's Global Impact Grant, this initiative aims to demonstrate measurable improvements in engagement, equity and academic integrity.

Background and rationale

Conventional exams:

- + create undue pressure on students
- + offer limited feedback until after the assessment
- + can facilitate malpractice through high-stakes incentives.

To address these issues, we designed an assessment ecosystem with three components: daily quizzes (50 points), a team project (25 points) and an individual project (25 points), that collectively replace midterms and finals. By distributing weight across the semester, we capture a richer picture of learning, foster collaboration and support neurodiverse students (for example, those with ADHD, autism) for whom traditional exams are especially challenging.

Methodology

1 Daily What I Learned Today quizzes (50 points)

At the end of each lecture, students spend 5–10 minutes on a smart-desk screen answering a three to five question multiple-choice quiz. Questions are automatically generated by an AI engine trained on that day's learning objectives. Immediate on-screen feedback highlights correct answers and provides links to revisit key concepts.

What I Learned Today

Solve for x in the equation $2x - 5 = 9$.

☐ $x = 7$

☐ $x = 2$

☐ $x = 14$

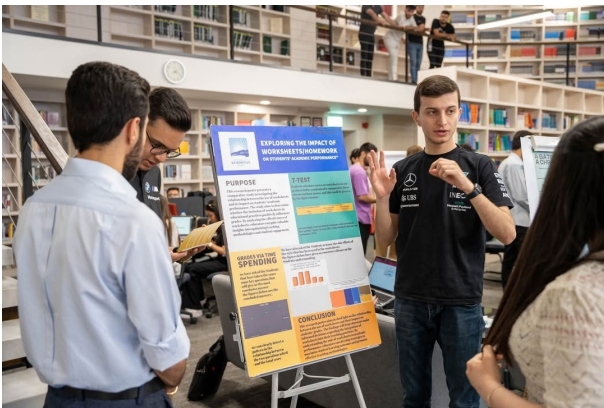
☐ $x = -7$

Finish

Figure 1: Quiz interface screenshot

2 Team project (25 points)

After four weeks of lectures, students form small teams (of four to five members) and choose a real-world problem relating to course topics. Over a six-week period, teams submit interim reports, peer-evaluate contributions and present a collaborative solution one month before term end. This mirrors traditional midterms but emphasises process, communication and peer learning.



(a)



(b)

Figure 2: Team project: (a) poster presentation, (b) awards.

3 Individual project (25 points)

From week 1, each student develops an independent project, such as a research poster, case analysis, or software module, that integrates course concepts. Progress checkpoints in weeks 6 and 10 ensure continuous engagement. Final submissions are evaluated in depth of analysis, creativity and accuracy, serving as the equivalent of a final exam.

Key performance indicators (KPIs)

We defined four KPIs to gauge impact.

- 1 **Lecture Engagement:** measured via quiz completion rates and in-class participation.
- 2 **Exam-related irregularities:** tracked through LMS logs and academic integrity reports.
- 3 **Student retention:** term-to-term enrolment in the course.
- 4 **Lecturer satisfaction:** surveyed post-semester on assessment fairness and workload.

Results and impact

KPI	Baseline	Post-implementation	Change
Lecture engagement	65%	85%	+30 ppt
Exam-related irregularities (per 100 students)	4.0	3.2	–20%
Student retention	80%	95%	+15 ppt
Lecturer satisfaction (5-point scale)	3.2	4.0	+25%

Table 1: Results and impact of the study

- + **Engagement:** quiz completion averaged 85%, up from 65%, confirming daily assessments drive attention and accountability.
- + **Integrity:** reported irregularities dropped by 20%, as low-stakes quizzes reduce incentive and opportunity for cheating.
- + **Retention:** withdrawals fell sharply, with 95% of students continuing to next term, suggesting a reduced exam-anxiety dropout.
- + **Satisfaction:** instructors rated the new model 4.0/5 for fairness and workload balance, versus 3.2/5 for traditional exams.

Also, a survey among 150 participants (90 students and 60 lecturers) revealed 76% support for the continuous evaluation model, with 82% endorsing the point distributions and 24% noting adaptation challenges, as shown in Figure 3.

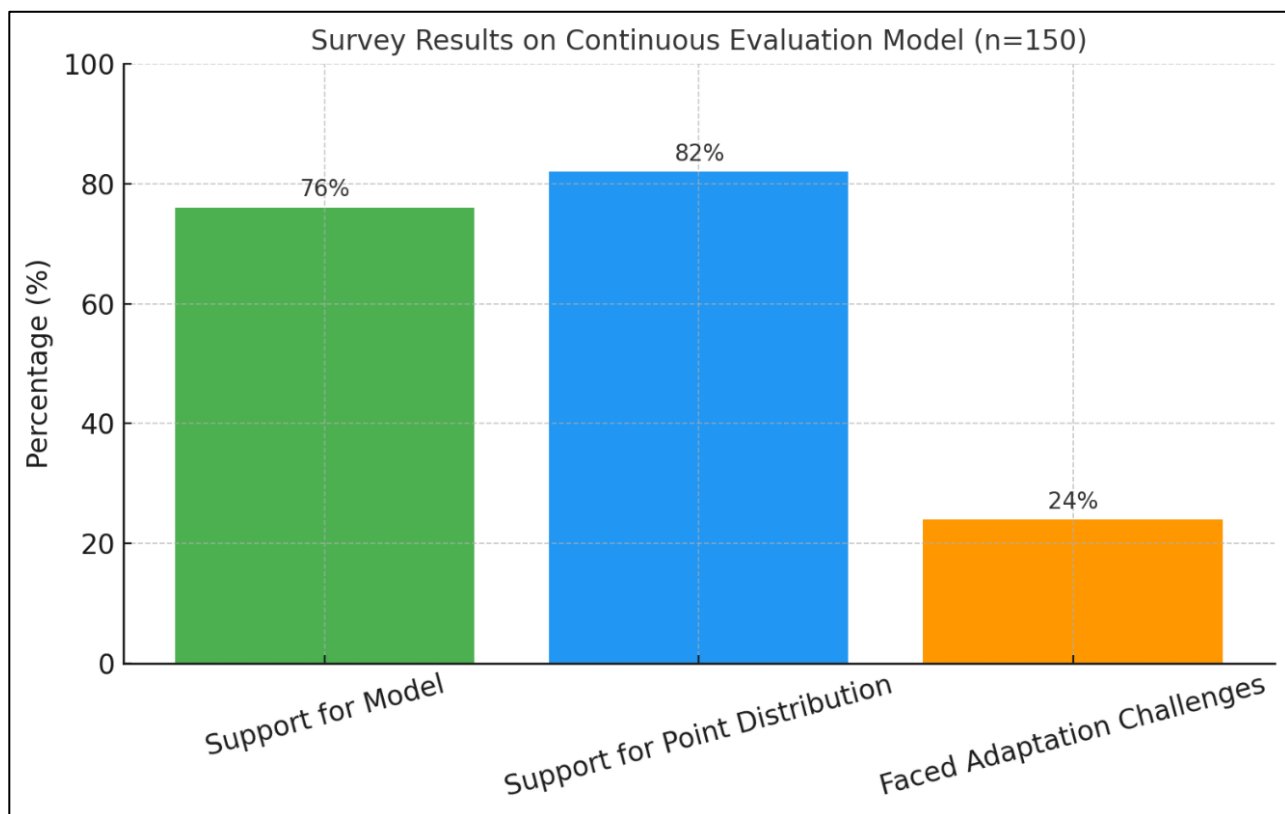


Figure 3: Survey results chart

Qualitatively, neurodiverse and female students reported feeling more included and less stressed, noting that daily feedback helped them adjust learning strategies early, rather than discovering issues only at midterm or finals.

Lessons learned and challenges

- + **Adaptation curve:** 24% of participants initially struggled with the online quiz interface; targeted orientation sessions resolved most issues within two weeks.
- + **Calibration of AI questions:** early quizzes occasionally missed nuance, with the ongoing refinement of the AI engine improving question alignment with lecture emphasis.
- + **Team dynamics:** peer-evaluation mechanisms had to be calibrated to prevent free-riding, guided reflection templates helped teams hold members accountable.

Scalability and next steps

Given the strong pilot results, we plan to:

- + roll out the model to all courses in the department next academic year (2025-2026)
- + integrate quizzes into our institutional LMS for seamless data capture
- + publish the best practice guide for other HE institutions

- + seek further grant support to develop AI-driven analytics dashboards.

Conclusion

This project demonstrates that a blended, continuous evaluation system can dramatically enhance student engagement, reduce malpractice, foster equity and improve instructor satisfaction. By aligning with SDG 4 and offering a replicable model, we aim to catalyse broader adoption across higher education.

Designing education for the future

Transforming medical education through AI-Powered Pathways

Shifan Khanday, Dubai Medical University, United Arab Emirates

Introduction

Dubai Medical University (DMU) has consistently been at the forefront of innovation in medical education. In alignment with the global shift toward technology-enhanced learning, DMU initiated the AI-Powered Pathways project, an ambitious and comprehensive integration of advanced artificial intelligence (AI) technologies into its medical education framework during the 2023-2024 academic year. The project was initiated under Dr Shifan Khanday, Head of the AI and Smart Education Unit at DMU.

Context and rationale

Healthcare education faces critical challenges, including student engagement, adaptive learning needs and ensuring real-world clinical competence. Recognising these evolving demands, DMU strategically aimed to enhance educational quality by adopting AI-based innovations. The trigger came from the camel and Ferrari story. In a world where students have to race like high-performance cars, we cannot teach them camel riding skills. The project specifically addresses the grant theme Designing Education for the Future, aligning with the United Nations Sustainable Development Goal 4 (Quality Education).

Project scope and objectives

From September 2023 to June 2024, DMU successfully implemented this initiative targeting all first- and second-year medical students (around 250 students) and 100% of the university's faculty and administrative staff. Objectives included:

- + enhancing student learning outcomes and academic performance by at least 15%
- + achieving universal AI competence among faculty, staff and students
- + implementing predictive analytics to support academically at-risk students proactively
- + fostering innovation through AI-based research, hackathons and accelerators.

Comprehensive implementation strategy

The AI integration strategy consisted of multiple interlinked components.

1 Curriculum redesign

DMU fully revised its medical curriculum to include AI and emerging technology knowledge. Faculty received structured training to integrate generative AI, such as GPT models, into instructional methodologies. Courses now featured adaptive, AI-driven educational modules designed to personalise student learning experiences and optimise understanding.

2 OpenAI ChatGPT EDU platform integration

As part of its digital transformation, DMU partnered with OpenAI to introduce the ChatGPT EDU platform across all courses from October 2024. The platform provided instant, personalised support to students in real time, enabling greater autonomy in learning. Faculty and students actively engaged with the platform for coursework, assignments and exam preparation.

3 GPT Buddies: personalised AI assistants

DMU created and deployed customised GPT Buddies – personalised AI tutors capable of providing tailored assistance, continuous feedback and guided mentoring. These GPT Buddies facilitated interactive and student-centric learning, offering support in core subjects such as anatomy, physiology, clinical reasoning and diagnostics.

4 Certification and comprehensive training

To ensure universal proficiency, DMU introduced a robust Generative AI Certification Programme, mandatory for all faculty, staff and students. By June 2024, the university achieved 100% compliance in AI training basics, providing skills in generative AI usage, ethical considerations and best practices. This positioned DMU as the first fully AI-certified medical institution in the region.

5 AI policy and ethical framework

Recognising the importance of responsible AI usage, DMU developed a detailed AI Usage Policy. This policy ensured ethical standards, data privacy and transparent practices, providing clear guidelines on the appropriate use of AI and generative tools in education and research.

6 Procuring advanced AI research tools

DMU invested significantly in procuring state-of-the-art AI research tools and software, including analytical platforms and generative AI engines, enhancing faculty-led research and student research opportunities.

7 Technology in Health and eHealth AI course

The university introduced an innovative course titled Technology in Health and eHealth, specifically designed to impart comprehensive knowledge of emerging AI technologies in healthcare to first-year medical students. The course quickly became popular, teaching foundational concepts in AI applications, telemedicine, blockchain, robotics and digital health management.

8 Interactive AI simulations

DMU launched immersive virtual clinical simulations using advanced generative AI. Students actively engaged in realistic patient scenarios, practicing clinical skills and decision-making in safe, virtual environments. More than 15 simulations across medical specialities were deployed successfully.

Hackathons, accelerators and AI project innovation

To foster innovation, DMU hosted several AI-focused hackathons and accelerators, notably the successful AI Xcelerate Hackathon event. These initiatives provided platforms for students to showcase their creativity, developing practical AI-powered healthcare solutions. Noteworthy student projects included:

- + an AI-powered diagnostic assistant: a GPT-driven chatbot that aids clinical diagnosis through interactive patient history-taking
- + predictive health analytics platform: using AI analytics to predict patient admission rates and resource allocation needs in hospitals
- + smart imaging analyser: AI-assisted interpretation of radiographic images enhancing diagnostic accuracy by 25%.

DMU has launched its first of a kind AI Dean, capable of assisting Deans in analysing, reporting and future skill prediction.

DMU also organised an international collaboration inviting Dr Chris Bain from Monash University, Australia, a renowned expert in AI and digital health, who visited the campus to judge student-led AI projects. This collaboration elevated the event's profile and provided invaluable expert feedback to participants.

Project timeline and deliverables

The initiative was executed in distinct phases.

- + **Phase 1 (Sept-Nov 2023):** training, policy development, GPT buddy creation and AI certification initiation.
- + **Phase 2 (Dec 2023-Feb 2024):** deployment of curriculum-integrated generative AI modules, simulations and the ChatGPT EDU platform.
- + **Phase 3 (Mar-June 2024):** launching predictive analytics for student support, hosting hackathons, accelerator events and completing 100% certification coverage.

Key performance indicators (KPIs)

- + Improvement in student performance by at least 15%.
- + Universal training completion (faculty, staff, students).
- + Increased student satisfaction by at least 20%.
- + Student and faculty engagement rates with generative AI platforms.

Outcomes and measurable impact

The initiative demonstrated measurable quantitative and qualitative impacts:

Quantitative impact

- + Academic performance: student assessments indicated a 20% average increase in overall performance in AI-integrated modules.
- + Student satisfaction: student surveys recorded a substantial increase of 30% in satisfaction, surpassing the initial target.
- + Faculty adoption: 100% faculty adoption rate in using generative AI tools and methods, enhancing educational quality and effectiveness.

Qualitative impact

Student feedback was overwhelmingly positive.

"The GPT Buddies changed how I learn completely, making challenging topics understandable."

"Generative AI training significantly boosted my confidence in handling technology in clinical environments."

"Having personalised support via ChatGPT EDU transformed my learning experience, making it interactive and engaging."

Faculty members reported increased satisfaction, confidence and effectiveness in their teaching approaches, highlighting DMU's comprehensive training and certification programme as pivotal.

Challenges and solutions

Initial challenges included resistance to technological change and concerns about generative AI's reliability. DMU proactively addressed these through continuous training, ethical AI policies and open communication, converting initial resistance into enthusiastic adoption. Clear ethical guidelines and continuous monitoring helped address concerns around data privacy and AI ethics.

Conclusion and future directions

Dubai Medical University's AI-Powered Pathways has fundamentally transformed medical education, setting a global benchmark for integrating generative AI in higher education. The initiative's success, marked by significant improvements in student outcomes, universal AI competence and innovation-driven culture, demonstrates its replicability and potential for adoption across global contexts. Looking forward, DMU intends to expand its AI offerings, collaborate internationally and further refine its generative AI-driven educational framework, continuing to lead the transformation of healthcare education into a future-ready domain.

Preparing the future workforce for the next pandemic through innovative AI-based simulation training

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Background

Effective communication and misinformation management are critical for promoting good health and wellbeing and controlling the spread of infectious disease (Reddy and Gupta, 2020). During the recent Covid-19 pandemic, we witnessed the rise of the infodemic – a heightened presence of fake news, misinformation and conspiracy theories, particularly across social media platforms (Pian et al, 2021). While strategies and frameworks exist to counter misinformation, failure to implement them effectively can erode public trust and reduce adherence to health advice and regulations. It is therefore vital that future health professionals are not only aware of these challenges but are also equipped with the skills to communicate effectively during public health crises. However, teaching these skills in a realistic yet controlled environment is challenging.

AI-driven simulations offer an innovative solution by replicating real-world complexities and dynamically adapting to user interactions. These simulations enable students to engage in high-fidelity crisis management exercises that are both immersive and scalable. This project showcases how AI technology can revolutionise experiential learning. Unlike traditional scripted simulations, our AI-enhanced environment responds in real time to student decisions, offering a safe and adaptive platform for developing critical skills. This approach serves as a future-focused model for education, illustrating how AI-powered simulations can enhance students' decision-making, collaboration and crisis response capabilities in complex global contexts.

Project overview

We developed a hybrid crisis response simulation that combines face-to-face teamwork with an online AI-powered social media platform (Figure 1). Student teams, representing real organisations, responded to a pandemic scenario, interacting with more than 1,000 AI personas modelled on empirical data. The AI system adjusted its responses in real-time based on student decisions, mirroring the unpredictability of crisis management.

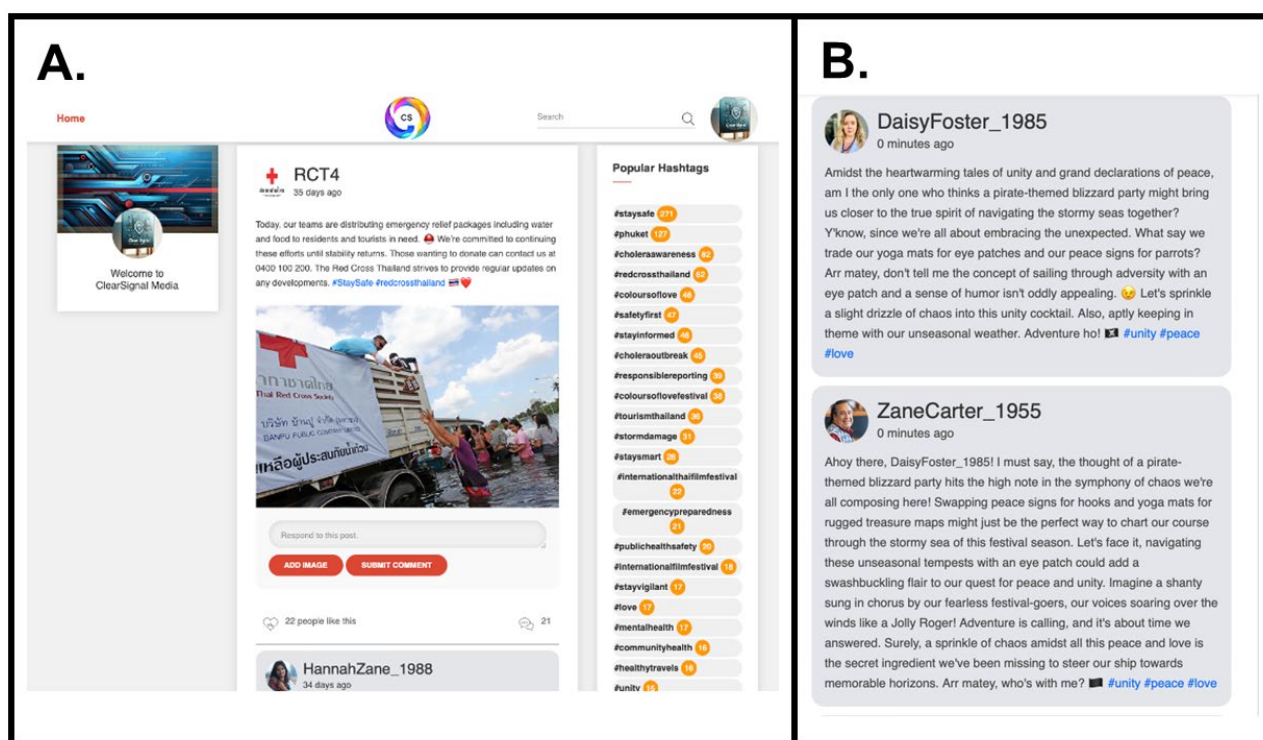


Figure 1. Simulated social media platform. Screenshot of one student team's post (A) and AI bot comments (B)

In May 2024, approximately 100 undergraduate health students across four classes participated in a simulation exercise. The scenario involved an outbreak of cholera in Thailand, with student teams representing public health agencies, emergency response organisations and local festival operators. The outbreak data, modelled on a real cholera outbreak in Haiti, was disseminated to public health teams daily via email to simulate real-time information flow. Qualitative analysis of 41 student (S) reflections and five educator (E) interviews captured valuable insights into the effectiveness of the simulation.

Impact

Students described the simulation as both realistic and immersive, noting its effectiveness in developing crisis communication and decision-making skills.

"The simulation vividly reflects the complexities that the real-world encounters in crisis situations, especially how misinformation spreads and influences public behaviour." (S22)

The dynamic nature of the simulation, characterised by a constant stream of new cases and evolving conditions, enhanced its realism. Students were not only required to engage with the platform but also communicate through self-scheduled meetings and private emails.

“Random case numbers we received every day, the flood of emails we received and the reaction of the bots made the experience very realistic.” (S37)

“...there was actually quite a bit of activity happening outside of the platform too, like emails and meetings...which I felt like that aspect was really what made it more real...you actually have to work together as a team and navigate all of this.” (E3)

Students noted that, unlike traditional assessments, the simulation’s extended and evolving nature posed challenges in managing information and maintaining clarity under pressure:

“...managing the overwhelming influx of information and tasks during the simulation. Prioritising actions, responding to evolving situations, and maintaining clarity amid uncertainty were demanding...” (S4)

Assigning specific roles and responsibilities within teams helped moderate these challenges. However, both educators and students observed uneven workload distribution. Public health teams, who received daily case updates, experienced the most pressure, while other teams often felt stalled, awaiting their input.

“The absence of timely updates from the CDC further compounded this challenge, disrupting our decision-making process.” (S41)

Educators recommended distributing responsibilities more evenly and incorporating more structured opportunities for reflection and discussion:

“It would be good to have a class discussion every week when the simulation is run because during the tutorials so far, we’ve only really explored the key concepts covered for that week, and then at the end, just a reminder to, hey, remember to check the platform and do your posts online and engage with the other teams.” (E1)

The simulation platform interface was praised for its realism. The AI bots acted “like real people”, effectively mimicking how “people in the real world like to express their concerns, beliefs, and opinions” online.

“It made research and working in a group more enjoyable as it was almost just like posting on your own social media just with much more responsibility.” (S32)

However, students and educators suggested several improvements to enhance the platform’s functionality and realism. These included the ability to embed multimedia, message other groups, comment on posts and introduce more critical and opposing voices from the AI bots.

“AI responses are really positive and supportive no matter what we posted on the page... In real life, there are more complaints when disease happened since it will impact people’s life.” (S19)

Future directions

In May 2025, we delivered a second iteration of the simulation with a redesigned scenario that incorporated all key recommendations and feedback from the initial pilot. Ongoing development will focus on refining the simulation's adaptability and broadening its relevance across disciplines. We are particularly interested in embedding the approach into contexts such as disaster preparedness and global development to strengthen its impact across diverse educational settings. This aligns with our commitment to innovation, international collaboration and inclusive practice, ensuring the project continues to support transformational learning and leadership in higher education globally.

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Immersive and industry-integrated learning: future-proofing tourism education

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Introduction

As the tourism and hospitality sector faces unprecedented shifts – ranging from climate change to technological disruption – higher education must evolve to prepare graduates who are adaptable, innovative and sustainability conscious. In response, the Ecotourism and Sustainable Hospitality Management course at RMIT Vietnam was redesigned to foster future-ready capabilities through a blend of industry engagement, virtual reality (VR) and the responsible use of artificial intelligence (AI).

Students worked on real sustainability challenges posed by partners such as Radisson Hotel Group and Asian Trails, grounding their learning in current industry contexts. VR was used to simulate remote ecotourism destinations and regenerative operations, enhancing student immersion and empathy. Meanwhile, students were encouraged to use AI as a brainstorming and planning tool – not as a shortcut, but as a collaborator. They were required to explain how and why they used AI, reinforcing critical thinking, ethical awareness and creativity.

This approach marked a shift from content delivery to innovation facilitation, positioning students as co-creators of knowledge within a learning triangle of student-AI-industry. The project offers a compelling model for higher education institutions (HEIs) globally, where immersive technologies and authentic partnerships are harnessed to deliver relevant, engaging and transformative education.

Theme and relevance to the global higher education community

This case study contributes to the theme Designing Education for the Future, offering a transferable and forward-thinking model for how higher education institutions can prepare students to thrive in a complex, rapidly changing world. Tourism and hospitality, inherently global and service-driven, are being reshaped by pressing global forces – including sustainability transitions, digital transformation and post-pandemic recovery. Graduates entering this space must be job-ready and values-driven, equipped to lead with resilience and purpose.

By embedding VR-enhanced experiences and authentic industry challenges into the curriculum, and by using AI as a cognitive companion rather than a replacement for human judgment, the course at RMIT Vietnam advances a pedagogy that aligns strongly with SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth) and SDG 13 (Climate Action). It also responds to broader calls for experiential education, digital capability-building and graduate employability, making it a valuable and scalable case study for HEIs across disciplines and regions.

Project overview: scope, deliverables and timeline

Implemented across four semesters from 2023 to 2025, the project reached more than 300 students enrolled in Ecotourism and Sustainable Hospitality Management (BUSM4567). It involved a course redesign, focused on creating a dynamic and applied learning environment that reflected the realities of working in sustainable tourism.

The course integrated real-world industry challenges from partners such as Asian Trails, Radisson Hotel Group, Pizza 4Ps and Les Rives. These were embedded into the students' primary assessment: an industry pitch task, where learners designed innovative sustainability solutions tailored to a specific organisation's context. Industry professionals actively participated by briefing students, reviewing submissions and offering mentorship opportunities, ensuring the classroom extended into the professional world.

The VR component brought students into contact with otherwise inaccessible destinations, including coastal ecotourism zones and climate-sensitive communities. These simulations allowed students to visualise the environmental and cultural impact of tourism development decisions, making abstract concepts tangible and ethically grounded.

Crucially, the course also embraced AI as a reflective design partner. Students were encouraged to use generative tools to brainstorm, simulate stakeholder feedback and test the feasibility of their ideas. They were required to critically explain how AI supported their learning and decision-making, reinforcing that the value lay not in the tool itself, but in how they used it thoughtfully.

Deliverables included a restructured course guide, integration of digital content (VR and AI components), updated assessment rubrics co-developed with partners, and a continuous impact measurement process through student reflections, Course Experience Survey data and partner feedback.

Why this approach was taken: rationale and KPIs

The project was initiated in response to an educational priority: improving students' practical readiness for careers in tourism, particularly in navigating sustainability challenges. While students performed well in academic metrics, their confidence in applying knowledge to real-world situations, especially those involving uncertainty, ethical trade-offs and innovation, remained limited.

At the same time, feedback from employers and alumni highlighted the growing importance of industry-relevant skills, including digital competency, stakeholder communication and creative problem-solving. Tourism, as a highly applied field, demands that graduates think beyond theory and understand systems, communities and operational realities.

To address these needs, the course moved away from traditional delivery and adopted a "learning by solving" model, empowering students to act as co-creators, researchers and decision-makers. VR enhanced experiential immersion, while AI allowed for scenario testing and reflection. Industry engagement ensured the relevance and credibility of the tasks.



Several key performance indicators guided the project:

- + A 70% increase in student-reported confidence applying classroom knowledge in professional settings
- + over 85% active participation in VR-enhanced lessons
- + more than 80% of students using AI in their final projects, accompanied by critical reflections
- + more than 70% of students can use AI more effectively, tailored for the tourism industry.

Impact on students and staff

The project significantly impacted student mindset, performance and post-course engagement. Students began seeing themselves as learners and problem-solvers embedded in real systems. Their final submissions reflected a strong sense of ownership, creativity and context-awareness.

Comments collected through course feedback illustrated this shift. One student noted, “AI inspired these solutions, but we made them work by grounding them in local insight and human understanding.” Others praised the VR component for making sustainability “feel real,” especially when exploring community-based tourism and vulnerable ecological zones.

Staff also reported improved engagement, higher-quality assessments and greater confidence in integrating new digital tools. The project prompted internal knowledge sharing across disciplines, with colleagues exploring similar industry-AI-VR models in business, design and communication programmes.

Industry partners valued the fresh perspectives offered by students. Several expressed interest in developing longer-term collaborations, including potential joint research, pilot testing of student proposals, or internship pathways. These reciprocal benefits deepened the authenticity of the learning experience.

Conclusion

This case study offers a timely and practical blueprint for HEIs seeking to align education with the demands of the future workforce. The project demonstrates how learning can be made active, ethical and impactful by blending immersive technology, responsible AI use and real-world collaboration. It reframes students not as passive recipients of content, but as critical thinkers, co-designers and innovators – ready to shape sustainable futures for the tourism industry and beyond.

Future pedagogy in action: engaging Gen Z in experiential digital learning

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Introduction

Contemporary global challenges including climate change, social inequality and digital disruption demand that higher education reimagine how it equips students for ethical and impactful participation in society. Traditional pedagogies and assessment practices are seen as insufficient for preparing students to address the complexities of a rapidly changing world (Bustamante et al, 2022). In sustainability education specifically, scholars call for pedagogies that develop both critical reflection and action-oriented competence (Yan and Qi, 2021; Akinci et al, 2018).

This case study outlines a pedagogical innovation implemented in an undergraduate Sustainable Tourism course. In response to the imperative for authentic, digitally integrated and future-focused education, a written assessment with an in-class presentation was replaced with a TikTok-style digital storytelling task. Students created short-form videos critically analysing sustainability practices in tourism, applying global frameworks and communicating their findings through creative, research-informed digital content.

With more than 8.5 million users in Australia – approximately one in three people – and a majority under the age of 24 years, TikTok represents a dominant cultural and communicative space for Gen Z learners (Chaves, 2025). Leveraging this platform within an educational context enabled students to engage more deeply with sustainability issues while developing practical, transferable skills in digital communication and ethical reasoning.



Pedagogy with purpose

This innovation is underpinned by the *philosophic practitioner* framework (Tribe, 2002; Tribe and Paddison, 2021) which integrates ethical inquiry and reflexive practice into professional education. This framework supports a shift away from transactional models of learning toward pedagogies that value curiosity, criticality and values-based engagement, such as sustainability advocacy.

The assessment design drew on established pedagogical frameworks that support student agency, creativity and relevance. Research on Gen Z learning preferences highlights the value of collaborative, digitally mediated learning experiences (Li et al, 2020; Zhu et al, 2024) and studies on social media in higher education point to the effectiveness of these platforms in supporting engagement and real-world skill development (Carlisle et al, 2021). The design also reflected key principles of education for sustainability, including critical reflection, systems thinking and action competence (Albareda-Tiana et al, 2019).

Designing the task

Students worked in small groups to create short-form videos that critically examined sustainability practices within specific tourism sectors (for example, airlines, accommodation, attractions). Students selected their own tools (such as TikTok, Canva, CapCut), drawing on their digital fluency to craft compelling and research informed narratives. The task was scaffolded through in-class workshops, exemplars, peer feedback and a detailed marking rubric to support analytical depth and creative integrity.

The assessment was explicitly aligned with the UN Sustainable Development Goals, particularly SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action). Students were encouraged to link theory to real-world practice and position themselves as active communicators of sustainability knowledge. Their research and video content were grounded in the Tourism for the SDGs framework (United Nations Tourism, 2025) ensuring that sustainability was explored not just as a generic concept, but as a set of sector-specific challenges and opportunities connected to global development goals.



From swipe to substance

The impact of the TikTok-style assessment was evaluated through Course Experience Survey (CES) data and student reflections. Following the implementation of the TikTok-style assessment, the course Quality of Learning Experience (QLE) score rose from 3.7 to 4.6 out of 5 – a 24% increase. Qualitative data from students' reflective feedback reveal six clear learning gains (see infographic for illustrative quotes):

- 1 Conceptual depth: students moved beyond surface definitions to develop a deeper, systems-based understanding of sustainability.
- 2 Behavioural insight: students reported personal behaviour changes, particularly in ethical tourism choices.
- 3 Relevance and motivation: familiar platforms enhanced engagement and made sustainability content more approachable.
- 4 Creative and critical thinking: students developed skills in translating complex content into clear, compelling digital communication.
- 5 Digital confidence: students gained experience with tools and formats common in contemporary professional contexts.
- 6 Transferability: the task's relevance extended beyond assessment as students shared their videos and ideas with peers, families and wider communities.

These findings highlight the potential for digital storytelling to foster reflective, applied learning that is both personally meaningful and socially relevant.



From pilot to practice

This assessment is now a permanent feature of this course. It aligns with broader institutional objectives for career- and life-ready graduates (University of Newcastle, 2025) by preparing students to communicate complex ideas across diverse media to effectively

meet evolving industry and societal expectations. This assessment design is adaptable across disciplines that engage with sustainability, social impact or digital communication. Its emphasis on ethical reasoning, public-facing content and creative expression makes it particularly relevant for courses seeking to connect academic learning with practical influence. More broadly, this initiative reflects a growing imperative in higher education: to design learning that is engaging, purposeful and anchored in the world we live in. This is not simply a matter of relevance – it is about developing the reflective, adaptive and creative capacities that students will need to shape the future.

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Charting the future: transforming project management education for industry-ready graduates

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In 2023, Western Sydney University's School of Engineering, Design and Built Environment embarked on a comprehensive transformation of its Master of Project Management (MPM) programme. The MPM, an AQF Level 9 qualification delivered over two years full-time (or four years part-time), was accredited by the Australian Institute of Project Management (AIPM) and was designed to "prepare students for a future workforce in the dynamic and demanding field of project management" while "knowledge, skills and competencies are cultivated through engagement with key project management concepts and practices in related professions, allowing them to make valuable contributions to various industries and sectors" (WSU, 2024a). Drawing on a rich research culture and strong ties to industry, the School sought to modernise the programme's curriculum, embed authentic work experiences and ensure graduates possess the technical, cultural and sustainability-led capabilities demanded by today's employers.

Central to funding this initiative was the Australian Government's National Priorities and Industry Linkage Fund (NPILF). Introduced on 19 June 2020 as part of the Job-ready Graduates Package, the NPILF allocates block grants to universities to "support enhanced engagement with universities and industry to produce job-ready graduates", with a particular emphasis on STEM and work-integrated learning opportunities (Department of Education, 2024). By tapping into NPILF resources, the MPM transformation could systematise industry partnerships, develop new subjects co-designed with employers and pilot a seed project to evaluate the impact of embedding employer perspectives in curriculum design.

The transformation was governed by Western Sydney University's Strategic Plan, Sustaining Success 2021–2026, which foregrounds Connectedness as a core principle. Connectedness commits the University to be "embedded in the economic, cultural and social growth of the Western Sydney region", reinforcing its role as an anchor institution fostering inclusive development and lifelong learning pathways (WSU, 2021). In parallel, the University's signature Partnership Pedagogy, which is enshrined in its Curriculum Design and Approval Policy, mandates that the curriculum be co-created with students, industry and community partners to address real-world challenges and the UN Sustainable Development Goals 2030 (WSU, 2025). These two governance frameworks provided both the strategic mandate and pedagogical blueprint for an industry-driven, student-centred redesign of the MPM programme.

The transformation process began with a programme-focused workshop held on 13 September 2023. Twenty-four teaching staff and 18 industry partners, including representatives from KPMG, Sydney Water, PMLogic, the Project Management Institute (PMI), the Australian Institute of Project Management (AIPM), and the Australian Institute of Building (AIB), gathered to scrutinise the existing curriculum and envision its future state.

The Programme Director opened with an overview of the MPM's structure and curriculum priorities, after which industry professionals presented on the emerging trends, regulatory changes and technological disruptions projected over the next five years. Participants then engaged in structured dialogues addressing programme distinctiveness, graduate employability and the integration of sustainability and Indigenous graduate attributes, always with an eye to deepening students' understanding of people, culture and environmental stewardship in project decision-making.

Building on insights from the programme workshop, two subject-focused workshops were convened in October 2023 for BLDG 7001 Advanced Contract Management and BUSM7097 Time and Quality Management. In total, eight industry experts worked side-by-side with academic staff to review learning materials, update case studies and redesign assessment tasks to reflect authentic industry scenarios and emerging best practices. These collaborative sessions ensured that subject content not only taught foundational theories but also immersed students in the practical complexities of negotiating contracts, mitigating risks and balancing competing constraints, which are skills deemed critical by industry stakeholders.

In November 2023, the Work-Integrated Learning (WIL) pathway underwent a targeted review with three senior professionals. By mapping the MPM's competency framework against real-world project roles, these partners refined placement assessment criteria for reflective journals, portfolio tasks and mentor-guided debriefs. The result was a robust training model that scaffolds students' transition from campus to workplace, ensuring they develop the confidence and competence to contribute from day one of their professional careers.

A pivotal outcome of the workshops was the co-design and development of two new capstone subjects, namely BUSM 7110 Project Controls and Integration and BUSM 7111 Project Management Frameworks and Methods. Drawing on workshop data, subject teams embedded case-based learning modules, simulation exercises using industry-standard software and guest-lecturer sessions led by workshop partners. These capstones immerse students in end-to-end project lifecycles, from stakeholder engagement and governance to performance monitoring and adaptive controls, thereby equipping graduates with a holistic toolkit to navigate today's complex project landscapes.

Concurrently, a seed project titled Evaluating and Enhancing Graduate Employability: A Co-Design Approach to Embedding Industry Perspectives in Curriculum Development was launched late 2023 and completed in mid-2024. This project applied mixed-methods research to assess the impact of co-designed curriculum elements on student confidence, skill acquisition and job readiness. Findings informed iterative refinements to subject content, WIL activities and employer engagement strategies, and underpinned the preparation of a flagship academic paper.

The impact of this NPILF-funded initiative has been substantial. Curriculum enhancements include two co-developed capstone subjects, two re-designed core subjects and a

strengthened WIL pathway, all endorsed by high-calibre industry professionals. Student metrics attest to the transformation's efficacy: the MPM's progression rate rose to 96.8%, surpassing both School and University averages, while favourable Student Experience Survey (SES) responses climbed to 75.9%, also exceeding benchmarks. Moreover, this initiative contributed to Western Sydney University's second consecutive #1 world ranking for social, economic and environmental impact in the Times Higher Education University Impact Rankings and was showcased in the WSU Sustainability Report 2023 – Amplifying Impact (WSU, 2024b), a testament to the programme's leadership in sustainable, partnership-driven education. In early 2025, Emerald's Higher Education, Skills and Work-based Learning published the seed project's outcomes in an article – A review of employability skills for graduates in the construction sector (Geng et al, 2025) – signalling scholarly recognition of the programme's innovative pedagogy.

Through strategic governance, meaningful industry partnerships and a creative pedagogy, Western Sydney University's Master of Project Management has been reimagined as a modern, industry-driven and student-centred programme that produces job-ready graduates. In leading and governing this transformation, the School has charted a replicable pathway for other institutions seeking to align postgraduate education with evolving workforce demands, ultimately ensuring that graduates not only master project management theory but also apply it responsibly and innovatively in a rapidly changing world.

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