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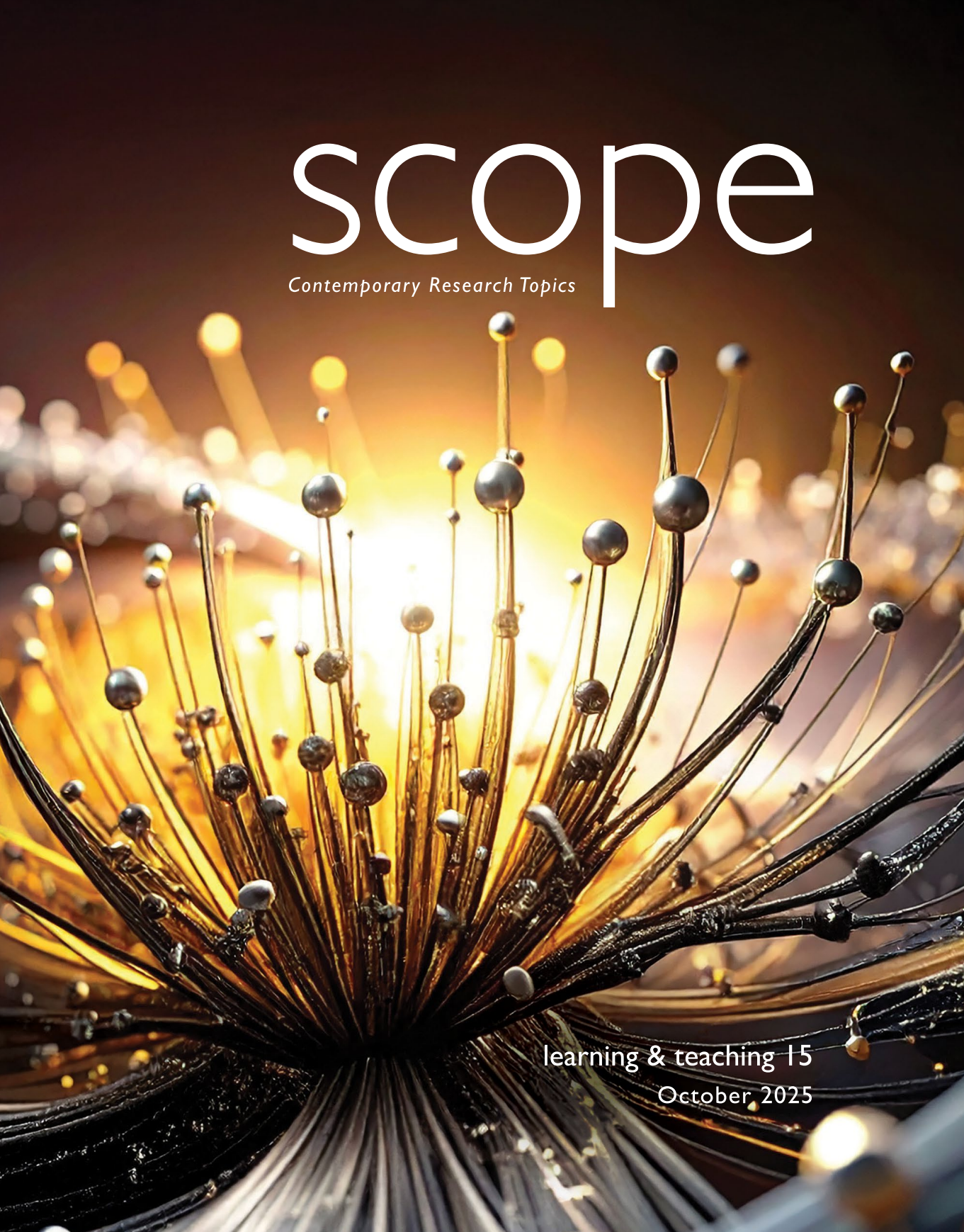

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Contemporary Research Topics

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GENAI WITH ACADEMIC INTEGRITY: BUILDING CONFIDENCE AND COMPETENCE

Trish Chaplin-Cheyne

Previous issues of *Scope (Learning and Teaching)* have been published under an open theme. However, in keeping with our kaupapa of addressing topical matters, this 2025 edition focuses on two themes currently at the forefront of higher education: generative AI (GenAI) and academic integrity. These issues are both pressing and deeply interconnected. Educators now face the dual responsibility of equipping ākonga to use GenAI authentically and confidentially while safeguarding academic integrity.

Industries are rapidly embedding GenAI into everyday practice, and our graduates must be ready to step into that reality. When used well, GenAI can enrich learning, expand access, and support practice-based education. When used poorly, it risks undermining academic integrity and widening inequities. Leaders in the sector must set the direction: championing ethical, inclusive use of GenAI that builds both confidence and competence for the future.

The contributions to this edition offer thoughtful analyses, practical insights, and emerging frameworks to guide how we navigate, and shape, the fast-evolving GenAI landscape in higher education. The authors are kaimahi, kaiako, and ākonga from institutions across Aotearoa New Zealand directly engaged with questions of how to incorporate AI into their work in ways that benefit all users.

The issue opens with a literature review surveying the affordances and risks of GenAI in education. Sofia Chambers examines the impact of GenAI on academic institutions worldwide, focusing on the experiences of educators and students overseas as a foundation for further research into the situation in Aotearoa New Zealand. As Chambers notes, publications on GenAI uptake in the New Zealand context are still in short supply, a gap this issue of *Scope (Learning and Teaching)* also aims to address.

We then hear from Fenella Wilson on how AI can become "a tool to bridge tasks with solutions" from a disability and inclusion perspective. Wilson argues that traditional expectations around assessment are still not serving many ākonga, especially those with neurodivergence or disabilities, and posing unnecessary barriers to their understanding, academic achievement, and even their eventual careers. With a focus on teacher education, Wilson explores the potential for AI to support ākonga with time management, writing, and analysis of readings. Used ethically and well, AI can streamline access to information and make learning more accessible for the wider community of learners.

The next contributions are from educators sharing their experiences with AI in the classroom and reflecting on how they and their learners are adapting to these new tools and technologies. Two articles from teachers of predominantly international cohorts explore the pitfalls and advantages AI and GenAI for this group, who face particular challenges and pressures in adapting to education in Aotearoa New Zealand. For Lizzy Guest and colleagues at Toi Ohomai, teacher professional development is indispensable in preparing for AI. They report on their efforts to enable AI use by ākonga while tackling some of the issues around academic integrity that arose from the use of this technology. Cindy de Villiers and Ruth Thomas, also at Toi Ohomai, researched ākonga attitudes to and capabilities with AI tools before and after their introduction. This study found increased

confidence and reduced stress among ākonga using AI. However, the authors also emphasise the importance of professional development and clear guidelines around the ethical use of AI.

Taking a different approach, John Mumford describes a lesson in Information Technology using scenarios to develop soft skills in students without relying on AI tools. "People," as he points out, "are a central part of any IT system" and IT graduates need skills such as empathy as much as technical knowledge when entering the workforce. Tony Heptinstall's contribution continues this theme of "humanis[ing] the application" of technology. Heptinstall is both a researcher into AI adoption and an educator committed to improving the engagement of his students through GenAI. He shares the findings of a large-scale survey he conducted at Otago Polytechnic into how staff were adopting and using AI. His contribution also offers some practical ways to use GenAI to enhance teaching practice.

The two contributions that close this issue move from the adoption of existing AI tools to developing new tools and frameworks. Here again, the authors acknowledge the potential risk AI poses to academic integrity while proposing proactive ways to mitigate those risks. Bruno Balducci, Ana Terry, and Mairead Fountain report on a research project to create a user-friendly solution for designing AI-safe assessments in vocational education. Their conceptual framework and design tool aims to enable legitimate AI use and prevent AI misuse in non-exam assessments, such as those applied and authentic tasks most relevant to vocational education. Finally, two Learning and Teaching specialists share their practical, pedagogically grounded approach to teaching using AI: LARC and the Human and AI Sandwich. The LARC framework (Learning, Articulation, Research, and Creation) encompasses the contexts in which ākonga engage with GenAI. The memorable metaphor of the sandwich then guides learners in applying their ethical and critical faculties to that engagement.

As the contributions to this issue make clear, tertiary and vocational education institutions around New Zealand are exploring the potential of AI while experiencing similar challenges around its adoption. All the authors in this themed issue identify a shared need for clearer guidance and institutional policies on AI use, especially relating to academic integrity and ethics in teaching and research. Artificial intelligence is already enabling ākonga to grasp complex material more easily, assisting international students to express their understanding in English, and reducing barriers to entry and assessment success for neurodivergent learners and those with disabilities. Kaiako and researchers are also enjoying the benefits of these tools. Some are leveraging GenAI's capabilities to reduce its risks and produce guidelines and frameworks to guide its ethical use. These and many other positive outcomes can be found within this fifteenth issue of *Scope (Learning and Teaching)*. We welcome these contributions to the ongoing conversation around AI in education in Aotearoa New Zealand today.

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GENAI USE AND RISKS IN HIGHER EDUCATION: A PRELIMINARY REVIEW FOR RESEARCH IN NEW ZEALAND CONTEXTS

Sofia Chambers

INTRODUCTION

While AI has been used in data processing and technology by academia for some time, it was as recently as 2022 that the OpenAI team released the first publicly available generative AI (GenAI) ChatGPT 3.0 (Hu, 2023). From that moment on, the history and use of AI, as we are familiar with it, has been rewritten. The Oxford English Dictionary (2023) defines AI as the ability of a computer or software to simulate human intelligence, performing tasks that might have previously been considered as only able to be performed by humans. Generative AI-produced text has been subjected to the Turing test designed to distinguish computers from humans and has succeeded in more than 140 instances, with the only observed non-human trait being the willingness of the GenAI interactions (Biever, 2023; Mei et al., 2024). Prior to the release of GenAI, the technology had been embedded in purpose-built software with very defined applications; now, we have publicly available and easily accessed AI that may be used for many purposes including academic learning and teaching.

To achieve such rapid development, GenAI training has used Large Language Models (LLMs), a training model for AI that permits natural language learning and interaction for diverse tasks, including computation and text generation (MIT Technology Review Insights, 2023; Zewe, 2023). Using natural language helps move GenAI towards the appearance of human intelligence. Trained on large data sets of the chosen language (IBM, 2023), GenAI is capable of conversational interaction with users, giving rise to the chatbot, a user-friendly interface to GenAI driven by LLMs that provides easy access for general users; for example, ChatGPT (The AI Navigator, n.d.). Chatbots such as ChatGPT 3+ provide much easier user access to GenAI capabilities without any knowledge of programming languages, using simple prompts in the language of use. Following the OpenAI release of ChatGPT 3 from 2023 to 2025, we have seen the explosive emergence of multiple free open-source GenAI LLMs such as Meta's LLAMA, CLAUDE, BLOOM and MS Copilot (which uses ChatGPT) (AI for Education, 2025). Consequently, GenAI is increasingly accessible to all students and academics.

When undertaking this review, it was observed that publications investigating the New Zealand contexts of GenAI uptake and use are minimal. Furthermore, as far as can be determined, very few studies in the literature set are from academics in polytechnics or their overseas equivalents. This short narrative review examines the impacts of GenAI on global academic institutions, focusing on student and lecturer experience in overseas studies and analysing overseas trends as a background for researching the New Zealand experience in GenAI, with a focus on polytechnics. The literature was surveyed from a range of Education and Computer Science databases and open access sources.

The review aims to discuss GenAI in the following thematic contexts:

1. What are the impacts of GenAI on Higher education?

2. How are students using GenAI and what are the associated issues?
3. What are the academic concerns around student use of GenAI?
4. What do we know about the uptake of GenAI by academic staff, their uses of AI, and perceived issues for GenAI adoption, and
5. Is there variation of GenAI uptake in different disciplines relevant to Unitec and other polytechnics and higher education providers in New Zealand?

The purpose is to identify themes of interest to academics in polytechnic and other higher education institutes in New Zealand to elucidate questions for a GenAI survey that is now in circulation. By understanding concerns about GenAI, we can take steps to better support our academic teaching and support teams as we move into the era of GenAI in higher education.

IMMEDIATE IMPACTS IN HIGHER EDUCATION

The quality of LLM outputs, wherein ChatGPT can write credible homework assignments and answer exam questions, initially surprised academic institutions and promulgated new policies to manage AI use by students in their assessments. Chatbots such as ChatGPT 3+ landing free to market have changed the educational landscape and caused some concerns, prompting bans in AI in some cases or otherwise restrictive policy responses (Delcker et al., 2024; Johnston et al., 2024; Perkins et al., 2024). ChatGPT and similar chatbots can create credible essay answers (Stokel-Walker, 2022). ChatGPT 3.5+ models can pass medical registration exams and other academic tests, including writing at undergraduate and postgraduate levels (Mbakwe et al., 2023; Williams, 2024). OpenAI state that they train their chatbots ChatGPT 3.5, 4 and higher, on the medical registration syllabus (OpenAI, 2025). It is suggested that the ease of GenAI chatbots producing outputs that would pass medical board registration exams is an indictment of the examination process more than an issue with chatbots (Mbakwe et al., 2023).

Institutional responses have shifted as more LLM models have entered the field, and as academics have had time and access to these tools to assess the likely benefits of GenAI. Maintaining academic integrity and quality of writing will always be essential, whether in a polytechnic or university environment, and students are expected to take responsibility for their own academic integrity. Incorporating GenAI into learning and teaching, rather than banning it, is now the topic of discussion (Jin et al., 2024). Institutional policies in New Zealand are generally open to using GenAI in all aspects of education, putting the burden on academics to choose where to permit GenAI use (NZQA, n.d.; The University of Auckland, n.d.). The very open nature of the New Zealand Qualifications Authority (NZQA)'s advice means that polytechnics must carefully produce their policies based on this source information. This review considers principles of GenAI implementation that could influence such academic staff responses.

STUDENT USE

Internationally, students entering tertiary education are likely to be articulate in GenAI chatbot use, although this is only demonstrated for university students in the surveyed literature. According to Johnston et al. (2024), students have already learned to use LLMs to provide research leads and help produce assessments, including writing them in full. LLMs may also help students for whom writing has been a barrier, such as neurodiverse students, to achieve in their tertiary studies (Heidt, 2024; Ooi et al., 2023; Xia et al., 2024). Without prompting, students harness GenAI in other ways that support their studies, including assembling revision or creating prep notes, and assisting their time management (Heidt, 2025).

However, it is also shown that students risk delaying assessment work knowing that an LLM will write it for them; hence, procrastination is a risk for students who regularly use GenAI for their writing, particularly under high academic workloads (Delcker et al., 2024). Students have also shown some understanding that chatbots

can hallucinate, impacting learning and propagating false information. The veracity of information generated by GenAI is prone to limitations derived from the training databases, and students need to be aware of the risk of false information produced by GenAI (Acerbi & Stubbersfield, 2023). These limitations regarding the training of GenAI also emerge in discipline-specific considerations, which are discussed below. GenAI has also been shown to produce false references, although this tendency may be reduced with newer LLMs (Spennemann, 2025). Students need to be aware of these limitations of GenAI.

Some studies have also shown that students' use of AI to write their essays, in addition to procrastination, may result in reduced memory, limited development of critical thinking, and decreased academic performance (Johnston et al., 2024; Smerdon, 2024; Zhang & Xu, 2025). One response to GenAI use has been implementing the detection of GenAI in student written work, leading to a potential standoff between the writing bots and detectors (Liu et al., 2024). A further issue is the economic pressure for students to purchase better performance (AI for Education, 2025), including improved paraphrasing of AI-generated writing to avoid detection.

CONCERNS OF ACADEMICS AND IMPLICATIONS FOR ACADEMIC QUALITY

Lecturers may have anticipated the emergence of GenAI, and many are cognisant of AI associated with analytic and business applications from prior use. However, the ability of LLMs to write high-quality exam and assessment responses was not anticipated (Williams, 2024). The academic response has been mixed, with some embracing AI and others expressing concern for the effects GenAI may have on assessment and certification (Byrnes, 2024; Jin et al., 2024; Ooi et al., 2023; Xia et al., 2024). Some lecturers are searching for alternate ways to assess their students due to academic quality concerns (Cotton et al., 2024; Xia et al., 2024).

Academic teams acknowledge the need to engage students in understanding and recognising the limitations of GenAI and taking responsibility for academic integrity in their writing (Aung et al., 2021; Cotton et al., 2024; Gruenhagen et al., 2024; Yusuf et al., 2024). One such approach could be encouraging students to take pride in their voice and research even when using GenAI to help write their assignments (Blackwell-Starnes, 2025). Lecturers also recognise the need to change their assessment modes. While face-to-face or in vivo assessments such as in-person exams or oral evaluation may help isolate GenAI and validate testing of individuals for certification (Lye & Lim, 2024), assessors also need to adopt approaches that embrace GenAI.

Can GenAI be avoided? Designing assessments welcoming GenAI use may confront faculty. Embracing the AARDVARC model, using alignment of tasks, authenticity, reliability of judgements, developmental appropriateness, validity of assessment, accessibility to student, realism, and constructiveness, could allow assessments to include AI without losing their value (Chapman et al., 2024). Lecturers must consider all these values and may also use GenAI to design assessment activities or contexts while applying the same lenses (Chapman et al., 2024). Such assessments may be aligned with learning by assessment, whereas conflicts may arise if the assessment's purpose is to certify or benchmark learning. Personal reflection, peer assessments, and self-assessment modes can help avoid GenAI impacts (Lye & Lim, 2024). Some assessments may lend themselves to using GenAI for components such as preparation and research and are valued because they provide training opportunities for work-readiness in the age of GenAI (Lye & Lim, 2024; Wach et al., 2023).

The pitfalls of GenAI detection also need to be addressed. Undisguised AI-promulgated text may be detected one hundred percent of the time by Turnitin, Copyleaks, and Originality.ai (Berek, 2024). However, such GenAI detectors are only partially successful at detecting well-disguised AI written work. Another problem with AI detection is false positives. Studies by Gao et al. (2022) and Rashidi et al. (2023) showed 12 percent and 8 percent false positives respectively; in other words, detectors suggested that this proportion of human-derived or historic (pre-GenAI) abstracts were machine-generated. Gao et al. (2022) also noted false negative detections marking machine-generated text as human. Further, using grammar correction software such as Grammarly (without AI switched on), which is generally perceived as acceptable academic integrity practice, can also result in 100 percent

GenAI-detection rates (Chemaya & Martin, 2024). Assessors must therefore be exceptionally careful when reporting GenAI detection or addressing these issues in academic integrity investigations. The same considerations apply to academics' use of GenAI for their own writing.

ACADEMIC USE OF GENAI

There are many opportunities for using GenAI in learning and teaching that academics are exploring (Ooi et al., 2023). Providing specific and individualised feedback and facilitating individual learning experiences for students are good examples of the beneficial use of GenAI (Dai et al., 2024; Zhan & Yan, 2025). Opportunities also exist to create support for students powered by AI (Dai et al., 2024). Further possibilities of GenAI including gamifying learning using chatbots, providing electronic avatars of historical figures (Heidt, 2025), supporting lesson planning (Peikos & Stavrou, 2025), content generation, and research. Academics for whom English is a second language may benefit from GenAI to support content generation and planning for their lessons (Heidt, 2024).

Implementing AI into learning and teaching, to some extent, varies by discipline. It is helpful here to consider the uses of GenAI in disciplines relevant to educators from polytechnics and other providers.

GenAI is more often likely to be recommended by business faculty when their real-world industry has a high AI uptake. Business faculty understand the uses of GenAI and integration of GenAI into business learning and teaching practices (Ooi et al., 2023). Using GenAI as a technology support in business training can improve understanding of GenAI's capability. It can also improve business students' goal orientation and willingness to use technology. Conversely, where students overly rely on such technology, it has contributed to reduced motivation (George et al., 2025). Unsurprisingly, faculty in Information Technology and programming disciplines have been faster in adopting GenAI for many purposes, including coding, where they note that GenAI can code well but is often inefficient. Hence, it can be a tool for training students to code more efficiently, but students who over-rely on GenAI for coding show reduced results (Lepp & Kaimre, 2025). Globally, GenAI use in language training is widely reported. One of the very few studies performed in New Zealand on GenAI shows benefits for language training through active research with students in a German Language course at the University of Otago (Alm, 2024).

GenAI has been readily adopted in medical practice for uses such as triage assistance, leveraging GenAI to filter text from patient records and help manage large caseloads (Hackl, 2024). Human radiographic analysis has long used AI-driven specialised software to assist radiographic analysis, and the capability of ChatGPT to fulfil this role has also recently been demonstrated (Kalidindi & Baradwaj, 2024). Limits on GenAI implementation have been identified in veterinary radiography, and the need for further developing veterinary radiography AI systems has been identified (Kim et al., 2022). Veterinary faculty and students are ready for GenAI implementation (Chu, 2024; Worthing et al., 2024), so it may be a matter of how quickly faculty catch up with peers in other disciplines. Nursing training faculty are also catching up on GenAI uses in training compared to medical faculty but have identified potential benefits of GenAI adoption (Chan, 2025; Simms, 2025).

In the Life Sciences, such as parasitology, the use of GenAI is limited by bias in the training of the AI and its content (also noted elsewhere), such as its misdiagnosis and provision of incorrect answers in parasitology tests. Hence, further training of the AI is necessary, but one study by Šlapeta (2023) shows potential for the future. Conservation science's adoption of GenAI has been impacted by issues of false or misleading data due to training issues, but the possibility for beneficial future use is acknowledged (Sandbrook, 2024). Conservation science has leveraged AI-driven software in photo traps to monitor wildlife and the AI trapping of pests (Gewin, 2025), although these are not instances of GenAI use. Researchers in life sciences seem less likely to use GenAI in learning and teaching currently, although GenAI is shown to be a helpful aid in lesson planning (Peikos & Stavrou, 2025). In the author's school (Environmental and Animal Sciences at Unitec), our stakeholders have clearly told us that our graduates need experience using GenAI for report writing and other mahi (L. Roberts, personal communication, June 9, 2025).

CONCLUSIONS

Other than opinion (Byrnes, 2024), minimal publications, and policy statements, research on GenAI in New Zealand is limited in the extent to which it addresses questions arising from the emergence of GenAI tools freely accessible to students across disciplines, including in New Zealand polytechnics. Our understanding is predominantly derived from overseas experience, of which this work represents a limited review. The rise of GenAI in academic settings is irreversible, and the challenge is how we respond as academics. This review has identified many ways that GenAI can enhance higher education experiences for students and assist academics in providing better and individualised learning experiences. We need to learn how to use GenAI, so research into academic attitudes to GenAI in New Zealand Higher Education, especially in polytechnics, is necessary to help develop our academic skills working with GenAI.

Many students in our system may benefit from GenAI to help provide a more level playing field, a benefit equally applicable to educators, particularly those for whom English is a second language. The adoption of GenAI by academics seems to correlate with the extent of GenAI use in their disciplines. For instance, business and medical faculty are more likely to have used GenAI and support its use in their field than ecologists or veterinarians in disciplines where the technology penetration has been more limited. The most common limitation of GenAI impacting academia is its tendency to hallucinate and produce false data. Academic staff need to be able to highlight the risks and essential ethical considerations for students using GenAI.

This review indicates a gap in New Zealand-derived data as the observations described here are almost entirely from overseas studies. We need to observe the uptake of GenAI in New Zealand higher education by students and academics alike. An opportunity for research into the status of GenAI uptake and academics' attitudes to GenAI is indicated, and the author is already surveying academics to address this gap. Further research to understand our student responses and use of GenAI is also necessary. Such studies should survey student understanding of GenAI's limitations as well as its opportunities, and cover the critical issue of academic honesty in GenAI use by students. Modification of learning and assessment methods will also be necessary as we join our students on the journey with GenAI.

LIMITATIONS

The studies in this review are predominantly built around earlier generations of GenAI and focus primarily on ChatGPT 3 and 3.5 use, with limited reflection on ChatGPT 4+ or any of the many new models emerging into the public domain. This limit on the range of GenAI reported is unlikely to impact the trends that have been observed.

Sofia Chambers has been working at Unitec in Animal Welfare, Veterinary and Biodiversity Education for 18 years. Prior to this, Sofia held teaching roles at the University of Auckland, Auckland University of Technology and Victoria University. Sofia's teaching interests have included immunology, genetics, anatomy and physiology, microbiology, animal welfare and science education. She has been previously involved in biotechnology and genetics research and has more recently started in educational research in the field of AI adoption.

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ARTIFICIAL INTELLIGENCE AS A TOOL TO BRIDGE TASKS WITH SOLUTIONS: A DISABILITY AND INCLUSION PERSPECTIVE

Fenella Wilson

INTRODUCTION

Artificial Intelligence (AI) is becoming more prevalent throughout the world. In fact, many may argue that it is becoming more difficult to distinguish the representations in AI-developed online media from reality. In many cases, AI is developing faster than humans can understand it. From my experience within our polytechnic, a number of ākonga and kaiako alike believe AI to be contributing to a welcomed revolution within higher education, particularly in how ākonga are assessed (Overono & Ditta, 2025). One outcome of this new technology is that assessment must continue to evolve in ways that ensure academic integrity along with satisfying kaiako that ākonga have met agreed learning outcomes. In many cases, assessment was already changing before the rise of AI to better meet the needs of diverse ākonga (Mutuota, 2024). Some traditional assessments, such as reports, essays, and bibliographies, are being replaced with creative compositions and group mahi to allow knowledge to be shared and assessed in flexible ways. While AI continues to compel these changes, kaiako could also consider embracing the technology to expand study and learning opportunities, and to improve assessment as a general education tool.

In this article, the lens of disability and neurodivergence has been chosen to explore the use of AI in this changing education landscape. Initially, this focus challenges more traditional expectations of preparing for assessments such as sourcing, reading, and comparing information from numerous sources manually, acknowledging that, for some ākonga, prioritising reading for information gathering can be a barrier in its own right. While many learners navigate a full range of assessments with ease, others with disability and/or neurodivergence may be challenged to gain and express their understanding, particularly if they are asked to do so in ways that are mismatched to their learning and communication preferences (Mutuota, 2024). This mismatch can result in lower assessment results than are representative of their knowledge. Even less defensible is the fact that these challenges with assessment can prevent ākonga from progressing through their chosen educational pathway. Experimenting with AI has been one example of seeking equitable outcomes for diverse learners.

It needs acknowledging that AI is still reasonably new to many people, and is likely to keep evolving and changing the way we practice. Its use can be problematic within some faculties and academic journal publications, with misuses of AI highlighted typically with software such as Turnitin (Halbert et al., 2025). However, as we navigate the early relationship phase, AI technology remains ahead of the detection capabilities of Turnitin software. With this in mind, we need to proceed with caution when AI use is indicated and require good policy and practice to be in place.

NEURODIVERGENCE WITHIN EDUCATION

Neurodiversity, a term coined by Singer (1998), is an understanding of the diversity of all human brains; neurotypical being representative of how a brain typically functions, and neurodivergent signalling a variable brain functionality, such as attention deficit hyperactivity disorder or autism spectrum disorder.

Multiple groups are often viewed as deficient or divergent from that which is considered normal (Bešić, 2020). Those with disabilities, including dyslexia and dysgraphia, along with neurodivergence, sit alongside many more such marginalised groups within the community. Those who identify within these communities often have their rights (to education, for instance) undermined, even though a full set of human rights are naturally afforded to everyone from conception (Human Rights Act, 1993). Even with legislation, there remain many instances where accessibility is compromised, physically or otherwise (Ingham et al., 2022; McCaffery, 2016; Mutuota, 2024). Education in Aotearoa New Zealand can be a barrier in its own right. Our system still favours narrow aspects of education, such as numeracy and literacy, as measures of success, which undermines individual understandings of accomplishment. This emphasis on certain knowledge can compromise self-assurance, belonging, and value for some, while contributing to a confident entry into universities for those who enjoy success within these subjects (NZQA, 2025). Studying the arts and sports at secondary school, for instance, might provide greater personal enjoyment and success for some ākonga (Nica & Hojbotă, 2024), but are often insufficient in themselves for higher learning placements, particularly when numeracy and literacy credits are listed as eligibility criteria. Historically, disabled and neurodivergent groups have been oppressed, because ableism has maintained its foothold through those holding positions of power, such as world leaders, government officials, business people and, dare it be said, educationalists (Bešić, 2020; Dolmage, 2017; Mutuota, 2024). It seems we have yet to fully realise that diversity policies, increasingly common at national and local levels, rely on encouraging diverse thinking and responses much earlier in education, and in life in general.

Human rights are protected through legislation (Education and Training Act, 2020; Human Rights Act, 1993), containing clear messages of inclusion; or, more specifically, the inability to legally discriminate. This in turn frames policy, whereby safe and inclusive education providers and workplaces welcome the richness of our human population. An example of such a policy is the *Diversity, Equity and Inclusion Plan 2024–25*, in which the Ministry of Education proposes that by "actively embracing a diverse and inclusive culture, we will better serve the diverse communities of Aotearoa/New Zealand" (2024, p. 4).

However, for an Initial Teacher Education (ITE) programme to gain approval for delivery, the provider must be able to prove that all applicants have evidenced their quality based on their general academic capability, highlighting proficiency in literacy and numeracy in particular (Teaching Council of New Zealand, 2019). This demand fails to acknowledge that these skills may be improved along the way.

Given this contradiction, an applicant may well be denied their right to enjoy success within further education, undermining their potential to make a significant difference for the diverse learners they would go on to serve, because the entry criteria to the profession were too narrow to capture their worth. Drawing from *Te Whāriki* (Ministry of Education, 2017), New Zealand's early learning curriculum, we might consider that, like tamariki, adults learn skills effortlessly when they are in an environment that uses them through the lens of their chosen interest (Nica & Hojbotă, 2024). Arguably, returning to the recruitment policy example, the Ministry of Education will ultimately seek qualified staff to fill their vacancies to best meet the demands of the role. Ironically, the very people sought under their diversity, equity, and inclusion plan may be denied access to their qualification pathway long before the job opportunity arises.

The outcomes sought in the *Diversity, Equity and Inclusion Plan 2024–25* (Ministry of Education, 2024) sit at odds with the application criteria for ākonga under the ITE Programme Approval, Monitoring and Review Requirements (Teaching Council of New Zealand, 2019). The conflict is frustrating but understandable, given that the legislation

to protect diversity is disseminated from the same place as the neo-liberal policies that promote competition, business acumen, and ultimate economic success for the country. It is easy to see how messages of diversity and inclusion lose their clarity as polytechnics navigate the pressure between serving their ākonga in the best way and maintaining competitive outcomes to stay afloat (Mutuota, 2024; Waiwiri-Smith, 2025).

Consider, for instance, that a neurodivergent ākonga finds their place on an ITE programme. Education to date perhaps has not served them well but, given promises of equitable opportunities for success, they are excited to enter the course. They hope that their personal experience positions them well for creating positive outcomes for many neurodivergent or disabled ākonga once they are in their own teaching role. This is provided the ākonga is able to successfully navigate in-course assessment to physically reach the practice space. It is often during assessment that gaps might appear showing that the written understanding of an ākonga is misaligned with the knowledge evidenced in class, pointing perhaps towards issues with the method of assessment (Nica & Hojbotă, 2024). In our early childhood education programme, we can observe ākonga achieving success in their practicum placements, while struggling to express the same understandings through traditional course assessment. This was the initial call to consider assessment tasks more laterally, to capture the full breadth of ākonga experience, to promote successful outcomes, and ultimately support future livelihoods. Even so, connecting with content may remain more difficult for ākonga who learn in ways that differ from those of the wider group.

AI IN THE EDUCATION SPACE

If a person has a culinary passion, through repetition they may master the art of preparing certain dishes with ease and pride, whereas someone else with less experience in the kitchen is likely to rely strictly on a recipe and refer back to it often to recreate a dish successfully. The recipe provides the steps required to achieve success and acts as a scaffold for the user to develop confidence through repetitive use. In the world of academia, we can investigate how AI can be used as a tool, or recipe, while still considering academic integrity for task completion (Bottomley et al., 2018).

As tools, AI apps and services can be helpful for time management and creating order within the brain. While the time management aspect could be beneficial for any ākonga, returning to a disability and neurodivergent lens, chatbots such as Chat GPT, Copilot, and Cogniti can be useful for summarising information and breaking it into manageable pieces, or task segmentation.

Academic writing can be tricky to comprehend for many, due to writing conventions and jargon that can break reading continuity. Navigating such writing with a disability can be so difficult it becomes an injustice. To make information more widely accessible, many organisations and individuals consider alternative formats. One example is the United Nations reproducing convention documents in multiple formats and languages, such as braille, audio, New Zealand Sign Language, and Easy Read, so rights may be widely understood (United Nations, n.d). Easy Read is a framework that makes information accessible. Used with the AI command, "please create an easy read format of this article," this universally understood concept can break down barriers to grasping academic content (Ministry of Social Development, 2021). Assimilating the more accessible text remains the responsibility of the ākonga, particularly for assessment purposes.

The AI platform, Google NotebookLM, allows users to upload an article, before prompting specific information of a chatbot, such as "What does this article say about creating an inclusive environment for children?" A second option leads to the creation of a podcast, which offers an audio summary of the article. Ākonga can listen to the podcast, enabling multitasking in too-busy lives, or providing an audible intake of information for ākonga who prioritise this sense in their learning (Jafarian & Kramer, 2025). The chatbot may help to determine the relevance of an article, and with accurate prompts, list ways to critically engage with it. However, doing so comes with a warning that the platform may or may not pick up all the intentions of the article. Additionally, AI has

already paraphrased the material, so ākonga must be confident when considering the original article against the information that AI returns that their final summaries are their own (Bottomley et al., 2018).

For some kaiako, particularly those who are neurotypical, it can be difficult to contemplate or understand another person's lived experience and how complex study might be for them. In today's world, innumerable instances of information can be immediately overwhelming for some neurodivergent ākonga. While ākonga have been electronically navigating information for years before they reach tertiary environments, the ability to navigate lengthy texts and critically engage with them can be an underdeveloped skill, as can absorbing programme-specific content. AI tools are shared within my own classrooms to assist ākonga to make sense of and prioritise information that contributes to both learning and assessment.

To make this process visible, I queried ChatGPT (OpenAI, 2024), "Can you show me how to critically analyse the following two paragraphs?" before submitting paragraphs three and four from the Neurodivergence Within Education section of this article. These two paragraphs highlight a surface level conflict between the Ministry of Education's *Diversity, Equity and Inclusion Plan 2024–25* (2024), and an excerpt from the ITE Programme Approval, Monitoring and Review Requirements (Teaching Council of New Zealand Matatū Aotearoa, 2019). The following example shares the response.

> Critically analysing these paragraphs involves *going beyond summarising* the content to evaluating *underlying assumptions, implications, contradictions, and power dynamics.* Here's a breakdown of how to approach this analysis:

PARAGRAPH 1 ANALYSIS

Summary

The first paragraph argues that human rights legislation (e.g., Human Rights Act, Education and Training Act) establishes a legal framework that promotes inclusion and prohibits discrimination. This legal mandate influences educational policy, such as the Ministry's *Diversity, Equity and Inclusion Plan*, which links embracing diversity to better outcomes for New Zealand's communities.

Critical Analysis

Strengths:

- Connects law and policy clearly, showing how legal principles trickle down into educational practice.
- Uses specific examples (DEI Plan 2024–25) to support claims, giving the paragraph credibility and grounding in real-world application.
- Highlights the aspirational language of policy—"actively embracing a diverse and inclusive culture"—which can be seen as progressive and hopeful.

Questions & Limitations:

- *Assumptions:* The paragraph assumes that inclusion is achieved simply through legal or policy statements. But how well are these policies enacted in reality?
- *Power & Practice Gap:* There's no mention of the gap between policy and implementation. Are diverse communities truly experiencing inclusion, or is the language performative?
- *Whose Inclusion?* Inclusion for whom? The term "diverse communities" is used, but not interrogated. Does this include neurodiverse learners? Disabled students? Indigenous learners?

- *Critical Perspective:* It lacks a critique of how power dynamics (e.g., colonial legacies, systemic bias) may still be operating within these legal or policy frameworks.

PARAGRAPH 2 ANALYSIS

Summary

The second paragraph critiques the criteria for entry into Initial Teacher Education (ITE) programmes, specifically the requirement for applicants to demonstrate literacy and numeracy proficiency. It argues that this prerequisite may exclude capable candidates who could develop these skills over time.

Critical Analysis

Strengths:

- Identifies a tension between inclusive policy rhetoric and exclusive practice in teacher education admissions.
- Brings attention to the gatekeeping role of "standards," questioning whether they serve equity or reinforce inequality.
- Offers a valid critique of a system that may ignore potential and growth in favour of fixed metrics.

Questions & Limitations:

- *Equity vs. Standardisation:* Who benefits from these fixed entry requirements? Do they disproportionately disadvantage certain groups (e.g., ESOL speakers, students from low socioeconomic backgrounds)?
- *Assumptions about Capability:* The paragraph assumes that all applicants could "improve along the way," but what support structures would need to be in place for that to happen?
- *Policy Contradiction:* It contrasts nicely with the first paragraph—where inclusion is celebrated in theory—while here, a specific policy contradicts those inclusive ideals. This could be explored more.
- *Omission:* There's no mention of culturally responsive assessments or alternative pathways to demonstrate readiness—an opportunity to challenge dominant (Western/colonial) norms of academic success.

PUTTING IT TOGETHER (SYNTHESIS & HIGHER-LEVEL CRITIQUE)

These two paragraphs set up a useful contradiction between the **ideal of inclusion in policy** and the **exclusionary nature of some educational practices**. A strong critical analysis would:

- Explore this contradiction more explicitly.
- Raise questions about **how inclusion is defined and operationalised**.
- Ask **whose knowledge and skills are valued** in teacher education.
- Consider whether **systemic inequities are being reproduced** through seemingly neutral criteria like literacy and numeracy.

IN SUMMARY

To critically analyse:

- **Identify the claim** being made.
- **Evaluate the assumptions** and evidence.
- **Question power structures** or inconsistencies.
- **Reflect on broader implications** for equity and inclusion.

The 'problem' that many ākonga are faced with is meeting the task of learning or assessment. For some disabled or neurodivergent ākonga, unpacking information and making a beginning can be the most significant hurdles to navigate. Offering ākonga a tool that helps quieten a noisy mind can help to align thinking more relevantly to what is being asked of them. The key conversation to have with ākonga is to know when to stop, and that is at the prompt below:

> Would you like me to help write a full critical reflection paragraph that synthesises these ideas?
>
> "No, thank you."

In this example, not only does AI assist with the process of critical writing, but the results are broken down into specific areas of focus. This assists ākonga who may struggle with task segmentation as part of their neurodivergence (Hennekam et al., 2025). Large tasks that seem overwhelming are broken into small elements creating bite-sized chunks that can build towards learning a new skill or meeting assessment criteria.

RESPONSIBILITIES OF KAIAKO

With an increased flexibility of assessment options, more ākonga can enjoy success, joining peers who already perform well under the narrow skillset of academic writing (Nica & Hojbotă, 2024). These changes in assessment have gained further attention because of a need to combat plagiarism and concerns around the actual knowledge of ākonga being evidenced (Halbert et al., 2025). However, some content may prove more difficult to effectively summarise outside of a report or an essay. Additionally, some prefer written communication, so excluding this option fully would undermine the aims of inclusive assessment. The responsibility of kaiako turns to maximising the voice and experiences of ākonga to authenticate their own understanding (Overno & Ditta, 2025).

So how does the academic world encourage ākonga to keep using their own voice, particularly when their voice is consistently mismatched to expectations at undergraduate level? Is it the voice of the ākonga that needs to change, or a too-narrow expectation of what signals understanding of a learning outcome? (Nica & Hojbotă, 2024). This expectation, for many disabled or neurodivergent ākonga, begins a cycle of activity: "I used my voice, and I discovered it wasn't the right one, so I used someone else's."

Plagiarism is not valued in any part of society. While authors can share the views of others, it is important to formally acknowledge the source of those views (Bottomley et al., 2018). Yet many ākonga are tempted to use AI, particularly those who repeatedly receive negative feedback or, worse, have failed assessments because their communication fell short of the standard.

The conversation about modes of assessment must continue. This topic deserves wider consideration than simply asking in which ways we can assess the knowledge of ākonga that prevent the use of AI. Even if it does not fully

align with our goals as educators, AI is here and kaiako should look to exploring its benefits to better understand its potential use, in an effort to combat academic dishonesty.

Having the conversation around AI and its acceptable uses and boundaries is important to set the tone of academic achievement (Halbert et al., 2025). Presenting AI as a tool to bridge tasks with solutions honours the fact that we live a world of innovation. Within learning institutions, AI can be celebrated for its ability to streamline access to, and navigate, vast amounts of information. However, understanding how AI might be used is important to balance innovation with personal responsibility and integrity within study (Bottomley et al., 2018; Halbert et al., 2025).

Furthermore, we should communicate the full range of study supports to all ākonga, not just those who struggle with more traditional or formal methods of assessment. Actively recommending ākonga to use Learning Facilitators to gain clarity around assessments, along with tools such as Studiosity or Cogniti for valid structural feedback in place of AI polishing, can help them strike a balance between personal, work, and study life. Directing ākonga to these services up front places these supports into a maintenance kete, rather than upholding the belief that accessing learning support and engagement services comes from a place of deficit (Bešić, 2020).

During this early stage, where AI detection tools such as Turnitin are evolving, there is an understanding that actual levels of GenAI use cannot be ascertained. Internal policy often brings about reparation measures such as face-to-face conversations to determine a student's actual understanding of content, or academic misconduct. Reinforcing expectations around AI use within these first conversations is important for ongoing assessment and has future implications for study.

Lastly, the feedback returned to ākonga through assessment is the bow that ties everything together. While rubrics enable ākonga to comprehend assessments, they also create consistency and transparency of grading by kaiako. Using credit-based feedback, together with suggestions for strengthening future assessments, acknowledges where the work has fallen short of the rubric, while balancing this feedback with mana-enhancing recognition of areas of success to repeat. Feedback is as much as about informing course delivery for the future, as it is about improving the quality of mahi from ākonga. When ākonga receive feedback that reinforces a self-conscious belief of deficiency in themselves, their temptation to use AI tools to improve their mahi may increase. If we want ākonga to use their own voice, we must show respect and gratitude to them for doing so.

CONCLUSION

Our world is neurodiverse and that is to be celebrated, as neurodivergence often brings about the innovation of tools to meet identified needs. AI is one such innovation that can be used to bridge a gap between what is being asked of ākonga for assessment and how they meet that task. It can be common for ākonga with disability or neurodivergence to arrive at polytechnics and other tertiary environments with concerns about how their study pathway may go, due to the ways that education might have served (or underserved) them previously. Conversely, others may arrive with a renewed enthusiasm, particularly in the teaching and learning space, knowing they can make a difference for diverse learners due to their own lived experiences. In a cruel twist of fate, such ākonga may discover that the entry criteria may prevent their placement on the programme, regardless of legislation that upholds the rights of all humans to receive the education they need to flourish.

A number of ākonga do get accepted into a programme, only to discover that the world of study is much more demanding than they anticipated. Some may struggle with the assimilation of content, navigating assessments including traditional assignments, or time management, particularly due to learning disabilities or neurodivergence.

This article presents AI as a support to ākonga who struggle with understanding course content or how they might be able to meet assessment criteria. When AI is queried in agreed ways, which maintain the authentic voice of ākonga, it can compartmentalise information and break down the skills required in assessments. These

functions may assist neurodivergent ākonga with compromised executive functioning, and build upon skillsets that require further development over and above their chosen course content.

While the use of AI can contribute to the ultimate learning success of ākonga, kaiako have certain responsibilities related to and around its use. Upfront conversations about acceptable guidelines for the use of AI should form a part of all courses. Ākonga are aware of AI, and many are familiar with its use and need to understand what constitutes appropriate usage within academic study. Highlighting support structures, such as Learning Facilitators and Studiosity, contributes to inclusive learning environments by positioning such supports as tools to equip ākonga to balance study and life, thus reframing the association of additional support with a sign of personal deficiency.

One of the most significant responsibilities of kaiako lies in the way in which assessment feedback is given, particularly, but not limited to, the case of ākonga who may have entered undergraduate study with a compromised sense of self-worth. A big part of what makes polytechnics stand apart is their commitment to pastoral care, and upholding the dignity of our learners is fundamental to their success.

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NAVIGATING ACADEMIC INTEGRITY IN THE AGE OF AI: A SINGLE COHORT'S JOURNEY

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Tertiary education institutions are currently grappling with new challenges around academic integrity in the age of generative artificial intelligence (AI). In particular, the widespread availability of chatbots that can assist students with learning and assessment completion has influenced teaching practices. This technological advancement is creating a "paradigm shift" in education (Gruenhagen et al., 2024). In this article, we reflect on how we navigated new teaching practices around academic integrity.

This article presents critical reflections from four members of a health teaching team involved in a Level 7 Graduate Diploma (NZQA, 2025) in Health and Rehabilitation during 2024. The cohort consisted of 11 students. All had international undergraduate degrees and spoke English as an additional language. This was their first experience with tertiary education in Aotearoa.

Three key themes were identified from the teaching team's reflections: (1) AI usage; (2) the nature of the international cohort, and (3) teacher professional development. The theme of AI usage explores how our students engaged with AI. The second theme examines how specific characteristics of the international cohort influenced these patterns of AI use. The final theme considers the role of teacher professional development in students' engagement with AI.

We retrospectively reflected upon these themes, utilising and adapting Brookfield's lenses for critical reflection (theoretical, autobiographical, student insights into AI use, and collegial lenses). This multi-faceted approach led to a "differently highlighted picture of who we are and what we do" (Brookfield, 1998). We conclude our reflections by discussing the challenges and opportunities of navigating academic integrity within a teaching environment that incorporates AI.

THEORETICAL LENS

In this section we will briefly consider the cohort's journey in relation to some literature pertinent to academic integrity and AI.

AI usage

Academic integrity is promoted by the institute as academic honesty, while academic misconduct is outlined in the student code of conduct as seeking academic advantage by deception or unfair means (Toi Ohomai, n.d.). The value of academic integrity is upheld within the health teaching and learning environment. All students are engaged in conversations about the importance of academic integrity and appropriate AI usage. This approach is supported by research that shows that a teaching environment that promotes academic integrity alongside student AI education decreases misconduct among students (Miles et al., 2022). For instance, students were

informed up front that Grammarly was not allowed due to embedded AI. This became the institute's academic policy in November 2024. At this tertiary institute, Turnitin is utilised as a plagiarism detection tool, and the team leader highlighted this to students. Prior to submission of online assessments, students are required to indicate that the work is their own. AI detection software and authenticity declarations have been reported to counter potential student excuses for inappropriate AI usage (Birks & Clare, 2023).

The teaching team was aware of the rapidly changing educational environment related to AI and at the start of 2024 had modified assessment tasks to minimise inappropriate AI usage. This included clear assessment instructions, templates for assignments, providing marking rubrics, and closely monitoring students' work. Birks and Clare (2023) advocate implementing innovative assessments for each cohort, incorporating students' ability to select topics of choice and the submission of formative drafts. Additional mitigating strategies were effectively applied to this cohort, as outlined later in this article.

After submission of the first assessments in early 2024, teachers became aware that approximately 80 percent of the cohort had utilised generative AI inappropriately. Initial mitigations to prevent inappropriate AI usage were insufficient to address the scale of AI use among this cohort of learners. AI detection software and a knowledge of learner voice identified this academic misconduct. The approach taken to first instances of academic misconduct was educative rather than punitive. An educative approach has been found to enhance academic integrity at tertiary institutes in Australia (Striepe et al., 2023) and is therefore deemed an effective first line approach. The teachers reiterated the institute's values on academic integrity and appropriate AI usage, framing this as a learning opportunity. Where further instances of academic misconduct occurred, students received written warnings in individual meetings with the health team leader, at which the need to uphold academic integrity was explicitly reiterated. The written academic warnings were successful with some students, but other students continued to use AI inappropriately in assessment tasks. A small number of students were given repeated written warnings for academic misconduct. Two students received the maximum allowable number of written academic warnings and were removed from the course in line with the institute's academic policy.

Research suggests that persistent academic integrity issues could be due to a variety of reasons. Mukasa et al. (2023) report that students primarily use AI due to concerns of failing assessments, with additional motivations including the convenience of using AI to produce content and time pressures. These factors could have been applicable to the students within this cohort.

Nature of the international cohort

The international nature of this cohort, all of whom had English as an additional language, presented specific challenges. The cohort's international status increased their contextual risks of using AI inappropriately. International students typically have high internal and external pressures to succeed in study (Education New Zealand Manapou ki te Ao, 2024; Miles et al., 2022). These pressures to succeed, combined with the challenge of forging new social relationships within Aotearoa, racial discrimination, and financial burdens (Education New Zealand Manapou ki te Ao, 2024), further increase the likelihood of academic misconduct.

AI can be beneficial for international students' learning. Kaur and Trifan (2024) identified specific advantages of generative AI for those facing language barriers. For example, generative AI can alleviate embarrassment speaking in a foreign language by enabling students to ask questions via chatbots (Kaur & Trifan, 2024). This utilisation of technology can empower the students and facilitate their understanding of content. This cohort were observed at times to be uncomfortable speaking in English or indicating that they did not understand a topic. Appropriate use of AI chatbots could have mitigated this situation. AI, and in particular generative AI, has been demonstrated to provide further benefits by encouraging active education and engagement (Kaur & Trifan, 2024). Utilising AI for translation can be appropriate for international learners and can facilitate access to academic content (Paterson, 2022). Google translate as an AI translation app was used with this cohort for assessment instructions

and resource material. The teachers were unclear about whether the app was able to effectively translate more complex documents such as articles in academic journals.

The teaching team was keen to harness the advantages of AI and facilitate student use of AI by incorporating this into in-class student activities; however, pedagogical change was outpaced by technological change. The teachers reflected that they could have used generative AI more as a tool to support the cohort. The institute's Technology Enhanced and Enabled Learning team (TEEL) (a team of advisors with expertise in educational technology who support teachers) had been proactive in offering personalised learning support through the introduction of chatbots. However, the team opted not to introduce chatbots due to large volumes of content, multiple content topics, workload pressures, and a reluctance to increase student utilisation of AI when it was problematic with in-class and assessment tasks.

Teacher professional development

Teacher education on academic integrity has been identified as a key factor in the reduction of academic misconduct (Jones, 2023; Miles et al., 2022). The teaching team attended external online professional development focusing on strategies to mitigate inappropriate AI use through assessment design. The teaching team utilised this knowledge to promote authentic assessment design. An institute-led professional development session was also provided. This focused on the use of AI as an educational tool in the classroom, but was implemented after this cohort had completed their course. Overall, the teaching team found this professional development beneficial, although earlier provision on integrating AI into the classroom to facilitate learning would have been helpful.

AUTOBIOGRAPHICAL LENS

In this section, under an autobiographical lens, we reflect on the teaching team's experiences with academic integrity and AI use by the cohort.

Nature of the international cohort

At the start of the course, many of the cohort reported unfamiliarity with the use of electronic devices, such as laptops and tablets, in the tertiary education environment. However, the students quickly became familiar with these devices and it was not long before students were observed to be using AI inappropriately. This was demonstrated during in-class activities by some students not appearing to actively engage in group discussions yet producing high-quality, detailed work within a brief period. Tasks submitted through Turnitin showed high levels of plagiarism, suspected to result from copied content or generative AI use. The teachers provided frequent encouragement and reminders to use problem-solving, judgement, and critical thinking skills instead of relying on generative AI. The teaching team reflected that AI can be a useful classroom tool when used appropriately and that it is important that students can identify appropriate and inappropriate usage. However, as Fatemi and Saito (2019) identify, critical thinking and writing in English may be new skills for international students. These students generally lacked confidence, even with low-risk activities, to voice their own opinions. This suggests that critical thinking was still a developing skill for the cohort.

The teaching team reflected that generative AI is a useful tool for teaching and planning specific class activities. It provides opportunities for critical discussion on AI generated content, highlighting gaps or areas that require further investigation or explanation. Another possibility is to integrate AI with a flipped, student-centric learning approach, where students are expected to come to class prepared for activities. An example of flipped learning using AI is where students access an AI-powered platform to help simplify pre-class task instructions and summarise readings or interact with chatbots to deepen understanding (Diwanji et al., 2018; López-Villanueva et al., 2024). This may enhance student engagement and motivation and scaffold prior learning while also providing support for diverse learning needs.

AI use

Formative assessments

A variety of assessment types were implemented for this cohort. Assessment design was proactive in responding to the rapidly evolving impact of AI on assessments. In semester one, a series of formative assessments with teacher feedback were utilised. This format was specifically chosen to support this cohort with several opportunities for constructive feedback and feedforward, enabling students to achieve the standards required for Aotearoa New Zealand's tertiary education. However, the teaching team raised concerns about high AI use in the formative assessments. The teachers identified challenges related to recognising potential AI use in the students' work and ensuring they had sufficient evidence to support cases of academic misconduct. Similar teacher concerns have been identified in literature related to higher education (Miles et al., 2022). It was fortunate that this cohort was small, enabling the teaching team to become familiar with individual students' writing styles and capabilities. The TEEL team provided support, including using Originality.ai as an additional AI detection software. One of the students admitted to purchasing this software for personal use, which was considered an attempt to bypass AI detection. In semester two, Originality.ai was no longer available due to the institute's shift towards assessment modification to mitigate against AI usage. In the second semester, assessment design and types were modified to promote increased student authenticity. Examples of the assessment types used are provided below.

Class presentations

Students presented PowerPoint presentations to their peers. The teachers identified instances where content in slides or commentary was inconsistent with the assessment topic. This inconsistent use of language, such as abrupt shifts in tone or vocabulary, has been demonstrated to be an indicator of AI usage (Doru et al., 2024). However, the teachers reflected that the cohort having English as an additional language could also have caused some of these inconsistencies. Group presentations were also utilised. The group members were chosen so that students with previous academic misconduct warnings were placed in groups with those who had not received such warnings. Group work mixing students, alongside frequent formative feedback, appeared to reduce the use of generative AI.

Reflective tasks with media clips

Video media clips were utilised to prompt student reflection and critical analysis. Tasks that encourage critical thinking and application of knowledge have been identified to be more challenging for generative AI to complete effectively (Jones, 2023). The teaching team therefore viewed reflections on media clips to be a low-risk assessment when it came to AI use. However, inconsistent language and out of context ideas did occur, raising concerns about AI usage. Again, these students had English as an additional language, which may have impacted their ability to understand media clips produced within Aotearoa. Students may have relied on generative AI due to comprehension barriers or inaccurate AI translation or subtitling tools. The teaching team considered that, whilst changing a task to a reflective activity may reduce AI usage, it is insufficient to completely prevent this. It was also apparent that the complexity of language in the media clips was not suitable for this international cohort. Reflective tasks based on written scenarios may have been more appropriate.

Online tests

The TEEL team advised that online tests would be a suitable assessment design to promote authenticity. Students were required to complete summative written tests using an online learning platform. These were completed in class, online, and invigilated with the aim of detecting and preventing AI usage. Prior to the commencement of the tests, warnings on AI usage were provided. Monitoring software was not available, but invigilation was used. Despite the presence of invigilators, suspicious activity was observed, including unauthorised tabs with generative AI or websites. One student was observed having completed multiple paragraphs within minutes despite being observed to have typed just a few words. The inappropriate AI use in this closely supervised setting

was unexpected. The teaching team reflected that the opportunity to have access to monitoring software would have been beneficial. Alternatively, a hand-written format to prevent AI usage could have been used. Seating arrangements were used to mitigate AI usage, with students with prior AI misuse seated closest to the invigilators. This appeared to reduce academic misconduct.

In-class writing tasks

The teaching team utilised regular supervised in-class assessment writing in essay format. At the end of each session, work completed was submitted to Turnitin. This facilitated in-class support and frequent checks for AI content. The teachers noticed that some of the submitted assessment work did not match a particular student's writing style. Conversations with the student revealed that they had used AI due to concerns with explaining concepts and writing skills. The teachers used this as an opportunity to build written language skills and promote academic integrity. This educational approach could promote future authenticity with assessment tasks. Although this assessment format had benefits, it imposed a high time burden on the teaching team, reducing the time for content to be taught.

Further academic misconduct

As in semester one, formative assessments building towards a summative portfolio assessment were also utilised. To promote academic integrity, students were provided with a template, in-class support, and feedback and feedforward on drafts. Despite teacher efforts to reinforce authenticity, a small number of students were identified as not presenting original work. A high-performing student admitted to authoring research proposals for these students. In this instance academic misconduct was not related to AI; however, these students had already received repeated warnings for AI use. These students may have shifted to non-AI forms of plagiarism after realising AI use could be detected.

Teacher professional development

The autobiographical lens further highlights the importance of professional development for the teaching team to enable the skills and confidence to support students to produce authentic work and accurately identify AI usage. Practical sessions aimed at developing teachers' skills and confidence with a variety of AI tools would foster greater integration of AI's beneficial applications into tertiary education. These sessions could facilitate teachers to explore AI's positive implementations, such as supporting students' critical thinking, reducing comprehension barriers, fostering independent learning, and promoting authentic student assessment practices. Familiarisation with and information on the accuracy of translation apps would also be advantageous. The strategic exploration of how teachers could promote AI translation in the classroom would have been especially valuable for this cohort.

In summary, our reflections through this autobiographical lens revealed that despite utilising a variety of assessment types, the teaching team still identified recurring inappropriate uses of AI. A key challenge was that some students, despite safeguards and detection risks, were still strongly tempted to use AI. The prevalence of AI use highlights the importance of knowing each student's writing style. Ultimately, any assessment type can be exploited by a motivated student.

STUDENT INSIGHTS INTO AI USE

In this section we focus on the third lens, offering the teaching team's reflections on student insights into AI use. The students were not canvassed specifically on their opinions related to AI usage and academic integrity. The team's reflection was retrospective, after the students had completed their qualification and graduated. Ideally, students' reflections would have been best captured at critical points during their learning journey. Nevertheless, valuable perspectives were obtained by the teaching team through individual and group student conversations and observations of this cohort.

Students expressed a lack of confidence with academic skills as a reason for using generative AI. At the commencement of the course, essential academic skills were taught. However, the students continued to report difficulties with academic writing, identifying relevant sources through library search engines, and referencing skills. This cohort was provided with an additional academic skills workshop and in-class activities to promote the development of academic skills. These interventions were successful for most students, and reduced incidences of AI identified in assessment tasks. However, some students developed habitual AI use, which hindered their academic skill development, reduced confidence, and trapped them into relying on AI, despite understanding the consequences. The teaching team reflected that the more challenging the student found the task, the more likely they were to engage in inappropriate AI usage. Further reflections noted that the lower-performing students were more likely to rely on AI, which was more frequently detected in assessment tasks from this group.

Unintentional plagiarism has been reported among international students in higher education due to cultural differences between their current and prior institutes of learning (Fatemi & Saito, 2019). Several students in our cohort identified a lack of confidence with written English, or with skills such as grammar. This led to unintentional AI usage when students utilised online grammar tools such as Grammarly to assist with their written English. Another student informed staff that a peer had advised them to use generative AI because their writing was too simplistic. Again, the lack of confidence with written English skills led to AI usage. The English language admission requirements for international students do not necessarily translate to proficiency with academic writing (Paterson, 2022). This gap was apparent with this cohort and more comprehensive support on written English was required. The students further identified challenges reading academic articles with more complex academic language. This cohort appeared shy speaking in English, especially during semester one, with an observed reluctance to admit to difficulties understanding topics. The previously discussed flipped classroom approach or chatbot support could have addressed these issues. With this cohort, it appeared that a lack of confidence or ability with written English and academic skills promoted the use of AI with assessment tasks.

COLLEGIAL LENS

Throughout the academic year, the institute's Technology Enhanced and Enabled Learning team provided advice and support. The teachers worked collaboratively with the TEEL team to promote academic integrity and authenticity of assessment tasks. This collaboration included facilitating the conversion from written assessments to online tests and providing technological support during the tests. The TEEL team further assisted with guidance on the detection of AI use in students' submitted assessment tasks. The TEEL team provided additional training for the teaching team on the use of AI within the tertiary education setting.

The learning support team provided targeted support to the whole cohort on academic skills. This occurred both at the commencement of semester one and during the mid-semester break to further support these skills. This support reduced AI usage. Fatimo and Saito (2019) highlight the importance of culturally responsive training for international students on academic writing. This training should be regular and tailored to their specific needs. Although the support provided was customised to this cohort, ongoing regular skill sessions would have been of benefit to further scaffold academic skills. Learning support also offered individual assessment assistance, which was utilised by approximately half of the students. However, the students frequently chose to attend these sessions in small groups, which compromised opportunities for truly individualised support.

The international team at the institute were an important support service for the teaching team and students. The international team reported that students from outside Aotearoa New Zealand have a lot of internal and external pressures to pass courses—for example, family and financial pressure, and a desire to gain or maintain social status—which helped provide a level of understanding and essential context for the teaching team. As previously noted, the internal and external pressures international students experience may lead to undue reliance on the use of AI tools to support their learning (Education New Zealand Manapou ki te Ao, 2024; Miles et al., 2022). The international team, in collaboration with the teaching team, supported the students to adjust to the home and

teaching environment within Aotearoa. They also reinforced to students the importance of upholding academic integrity. The support and assistance from these institute teams was appreciated by the teachers and helped to foster success for the students.

Teacher professional development

Collaboration with institute teams also contributed significantly towards the team's professional development. For instance, TEEL facilitated an AI workshop, showcasing some of the effective classroom applications of AI. The teaching team then reflected on how AI could be integrated as an educational tool to assist to enhance classroom learning. Further practical workshops applying these skills would have been of additional benefit. However, the available opportunities for professional development on AI use have been embraced by the teaching team, enabling the adaptation of in-class activities and assessment tasks. The teaching team is currently proactively developing new student cohorts' AI literacy using chatbots for learning support and assessments and Notebook LM as an in-class activity. Through learning about the responsible use of AI the teachers are cautiously confident that student awareness of inappropriate AI use will increase. As teachers, our AI literacy is also rapidly developing as we embrace new technologies in health.

CONCLUSION

With the advent of AI, tertiary institutes face new challenges in developing the academic integrity of students. These reflections aim to highlight the practical realities and responses of a small teaching team in a vocational education setting, offering three significant and interrelated observations. Firstly, despite measures to promote academic integrity, persistent inappropriate use of AI and academic misconduct occurred. Secondly, this international cohort brought specific challenges due to cultural norms and imperatives to succeed. Thirdly, the teaching team experienced challenges combining proactive and reactive strategies, balancing the need to discourage inappropriate use of AI whilst leveraging the advantages of AI for this cohort.

As a result of these reflections, we recommend that institutes prioritise the importance of timely and well-resourced professional development for teachers in practical AI skills to enable meaningful integration of AI into teaching pedagogy frameworks. This would enhance students' academic learning. However, professional development opportunities for teaching staff may be subject to a range of constraints, creating significant barriers to learning and skill enhancement. Institutional commitment and strategic planning are required to ensure that professional development in AI is accessible, evolves with technology, and supports the requirements of teaching teams. Additionally, we recommend adequate investment in international students' academic skill development, including tailored learning support services. Such investment is vital to ensure students' AI literacy is fostered without compromising academic integrity. Embedding the above recommendations into institutions will create an environment where teachers and students obtain the necessary support for students to achieve academic success with integrity.

As AI continues to evolve, integrating its roles into education will challenge both students and teachers, while also providing opportunities to promote academic learning. Proactive strategies are essential to navigating this evolving landscape. The insights we have discussed emphasise the importance of forward thinking and informed and ethical engagement with AI, equipping teachers and students as they navigate the shifting paradigms of contemporary tertiary education.

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A LEARNER-CENTRED CASE STUDY OF GENAI TOOL USE IN APPLIED PROFESSIONAL STUDIES

Cindy de Villiers and Ruth Thomas

INTRODUCTION

This case study explored the experiences and perceptions of students using generative artificial intelligence (GenAI) for learning in two Applied Professional Studies courses at Toi Ohomai Institute of Technology, Aotearoa New Zealand. The wider study was the subject of the lead author's dissertation research (de Villiers, 2024). The case study courses were Adult Teaching Practice, and Mentoring and Supervision for Professionals. Of the 16 students who took part, 15 were experienced teachers, and one was from a social work background. Most were international students. The increasing use of GenAI for learning and organisational purposes made the study particularly relevant to those who took part. Although participants were students at Toi Ohomai, they could also reflect on GenAI use from the practitioner perspective. How to leverage the benefits of AI *for* learning, while managing the risks of AI use *to* learning, are 'hot topics' for teachers.

A mixed-method design was used, with data collected through pre- and post-questionnaires and focus group sessions. The 4E GenAI adoption framework (Shailendra et al., 2024) was used to guide the study. The four phases: embrace, enable, experiment, and exploit, guide institutions in adopting GenAI (Shailendra et al., 2024). Applying the model at cohort level was expected to inform the wider adoption of GenAI at Toi Ohomai. In the embrace phase, institutions articulate their intent and vision for GenAI adoption, to create the foundation for implementation in alignment with the personal expectations of users (Shailendra et al., 2024). The enable phase focuses on preparing faculty and students through training, and the development of policies that address ethics, privacy, and academic integrity. The experiment phase aligns with phenomenological research, capturing the lived experiences of students and staff interacting with GenAI systems. Finally, the exploit phase involves scaling the integration of GenAI across the institution. The parameters in Shailendra et al.'s (2024) academic evaluation matrix (AVM) were used to develop the questionnaire instrument measuring participants' awareness of and readiness to adopt GenAI.

Participants' dual perspectives as both learners and teachers made their insights especially valuable to this study. The findings suggest an increase in student confidence, better management of time during study, and reduced stress associated with coursework, especially for international students navigating studies in English. Nonetheless, ethical concerns were prevalent and uncertainty around institutional practices created emotional discomfort among the students. By capturing these students' voices and delving into the practicalities of using GenAI for learning, the findings of this study contribute student-led insights to inform responsible GenAI integration through policy, training, and support structures at Toi Ohomai and other tertiary education providers.

RESEARCH AIMS AND QUESTIONS

The research arose from the need to understand how Toi Ohomai Applied Professional Studies postgraduate learners would respond to the guided use of GenAI, in the context of the institute's efforts to maximise its

benefits for educational and organisational purposes, while managing the concomitant risks.

The research questions were:

> What are the experiences of students in the Applied Professional Studies suite of programmes at Toi Ohomai, in using selected GenAI tools to support their learning?
>
> What are students' perceptions regarding the future role of GenAI tools in learning and assessment at Toi Ohomai, as a result of these experiences?

LITERATURE REVIEW

The literature review canvassed the potential of GenAI use in education, how students might prepare themselves for an AI-driven future in the workforce, and the impact of GenAI adoption in New Zealand.

The potential of GenAI to support learning and teaching

GenAI can personalise learning and facilitate interactive engagement (Kadaruddin, 2023; Koć-Januchta et al., 2022), supporting the construction and retention of knowledge. Baidoo-Anu and Owusu Ansah (2023) acknowledge the potential of GenAI tools to facilitate deeper learning in higher education. GenAI can foster creativity and innovation in learning (Creely & Blannin, 2023; Moorhouse et al., 2023; Zawacki-Richter et al., 2019) and develop critical thinking as students evaluate and interpret AI-generated outputs (Petrovska et al., 2024). Petrovska et al. (2024) also position GenAI as a learning companion rather than a replacement for student effort. Postgraduate students have positively embraced tools such as ChatGPT, appreciating their convenience and ability to save time (Al-Smadi, 2023). Concerns still remain. Walczak and Cellary (2023) agree that GenAI can support learning, but caution that it may disrupt traditional methodologies. McDonald et al. (2024) recommend further study on the long-term pedagogical implications of GenAI. Bahroun et al. (2023) advocate for GenAI's transformative role in education, while emphasising the need to address its ethical use. Krause et al. (2024) confirm the many benefits of using GenAI, but warn that concerns about unethical use are very real, specifically when students use GenAI recklessly. Therefore, higher education institutions are obligated to adopt policies and procedures setting out how responsible and ethical use of GenAI is to be achieved in academic work (Krause et al., 2024).

Preparing students for an AI-driven future

The future workforce will rely on AI literacy, placing the onus on tertiary institutions to ensure graduates can effectively use AI tools. De Silva et al. (2024) explain that "AI literacy" is still a very new concept; it refers to an individual's competence in understanding, assessing, and utilising AI tools, irrespective of their ability to develop actual AI models. They point out that to develop this essential skill, students should engage ethically and responsibly with AI both personally and professionally.

Impacts of GenAI in New Zealand

Gabriel et al. (2022) state that using developing technologies in education, including automation and artificial intelligence, prepares future employees and the wider population to adapt to changes in society. New Zealand, Scotland, and Singapore have embraced AI in the classroom by implementing learning analytics and data-driven decision-making (Gabriel et al., 2022). New Zealand's Ministry of Education is partnering with education providers and employers through initiatives such as ICT (Information, Communication and Technology) and Māori and Pasifika Trades and Training programmes (New Zealand Ministry of Education, 2023) to equip learners for the modern workforce.

Gavaghan et al. (2021) report AI's disruption to traditional work and potential learning processes, underscoring the importance of careful implementation in education. Houkamau and Sibley (2019) assert that Māori and

Pasifika perspectives should be recognised when the impact of AI in New Zealand is evaluated. Matapo (2021) reminds us that, for Pasifika peoples, education takes place in various contexts, rooted in indigenous knowledge systems that remain vibrant. The methodology chosen for this research helped uncover diverse learning processes among participants as they shared their understanding and use of various tools during the study.

METHODOLOGY

Research design

The mixed-methods research design aimed to gain a comprehensive understanding of participants' experiences and perceptions (Creswell, 2015) in adopting GenAI tools for learning. The 4E GenAI adoption model phases embrace, enable, experiment, and exploit (Shailendra et al., 2024) provided the framework for the introduction, use, and evaluation of GenAI tools. Two data collection instruments developed for the study tracked participants' awareness of, readiness for, and use of GenAI. The pre- and post-questionnaire instrument (de Villiers, 2024) incorporated the parameters from Shailendra et al.'s (2024) AVM. Participants responded to the survey prior to the eight-week adoption period (introduction, training, and use) and again after the eight-week period of use. The pre- and post-survey instrument complemented the phenomenological case study approach (Hyett et al., 2014) and aided in triangulating the data (Csiernik & Birnbaum, 2024) from the focus group interviews. The interview instrument (de Villiers, 2024) was used to facilitate two focus group discussions, which took place after the eight-week usage period, to explore participants' experiences of using GenAI tools for learning, and their perceptions regarding the use of these tools. The mixed methods supported the development and testing of the instruments and helped interpret the situation (Walliman, 2018).

Ethics approval

Ethics approval was granted by the Toi Ohomai Research Ethics Committee (TRC PG2024.037). No alteration of course learning outcomes or institutional policies was required for the study to proceed. Participation was voluntary, with informed consent obtained. No incentives were offered. Data were anonymised and stored securely.

Participants, scope, and implementation

The study population was selected using purposive sampling. Students in the two postgraduate classes (PROF.8016 Adult Teaching Practice and PROF.8014 Mentoring and Supervision for Professionals) were invited to participate and 16 were recruited. Participants were not anonymous; however, their identities were kept confidential (Carter, 2018).

Following recruitment, informed consent was obtained from participants. They then completed the pre-questionnaire to measure their awareness of, and readiness to adopt GenAI. The researcher visited classes to facilitate initial discussion on the ethical use of GenAI tools for learning. As a starting point, she introduced selected EdTech tools (Elicit, MyBib, and LinkedIn Learning) and provided ethical and practical guidance in their use. In both classes, students were encouraged to experiment with these tools, and invited to use others presented by their classmates in a weekly class EdTech/IT tool slot. The presenter added an entry to a dedicated EdTech/IT tools Moodle Glossary to display information and links to tutorials on the demonstrated tool. The class tutor duplicated each entry in the other class glossary, so all learners could access an up-to-date list of the shared items. Students could also use other GenAI/EdTech tools they had found, while ensuring that academic use complied with Toi Ohomai guidelines. Ethical use of GenAI tools was regularly revisited and discussed during the study period. For example, although a student identified Quillbot as useful (for tasks such as similarity checking), it is blacklisted by Toi Ohomai due to other functions that compromise academic integrity. This was addressed in class. In another instance, the tutor explained that Adult Teaching Practice students could try lesson plan generators,

or use conversational AI to gather activity ideas, but needed to develop their own lesson plans. GenAI outputs students had referred to were added to assessment work as appendices.

In the focus group interviews, participants listed an array of GenAI tools they had employed for different purposes (Table 1). ChatGPT was commonly mentioned for its versatility in both personal and academic instances. In most cases, participants appreciated the tailored responses and ideas generated by ChatGPT that they could further explore. Now (in 2025), for academic and organisational purposes, Toi Ohomai staff and students are expected to use their Toi Ohomai Microsoft and Google accounts to access Copilot and Gemini, rather than ChatGPT and/or unpaid versions of tools that may train on their data. Users can also enter their data into Toi Ohomai's instance of Cogniti, knowing that their work remains private. Ultimately, as Table 1 shows, participants used a wide variety of tools. Most were GenAI or hybrid, with some non-generative tools.

Tool	**Category**	**Primary Function**
ChatGPT	Generative	Conversational GenAI
Canva (with AI)	Generative	Design platform with text/image generation
Cogniti	Hybrid	A customisable chatbot based on a protected OpenAI GPT environment hosted by the University of Sydney and used at Toi Ohomai
Connected Papers	Hybrid	AI-assisted literature discovery, summarisation, and visual mapping
Editor App	Generative if text is rewritten or enhanced	Grammar and style editing
Elicit	Hybrid	Research assistant
Explain Paper	Hybrid	Explains academic papers in simpler language
Gemini	Generative	Conversational GenAI
Grammarly	Hybrid	Grammar and style suggestions
Kahoot	Hybrid	Game-based learning
Kura Plan	Generative	Lesson plan generator
LinkedIn Learning	Hybrid	Online learning platform with personalised coaching
Mendeley	Non-generative	Reference manager
Mentimeter	Non-generative	Interactive polling and audience engagement
MyBib	Non-generative	Rule-based citation and bibliography generator
Otter.ai	Generative	Transcription and summarisation
Paperplan	Generative	Academic writing assistant
Quillbot	Generative	Paraphrasing and summarising
Quizziz (now Wayground)	Generative	Quiz tool able to auto-generate new content
Research Rabbit	Hybrid	Literature discovery, mapping, and summarisation
Snapchat (My AI)	Generative	Text-based assistant
Socrative	Non-generative	Formative assessment and student response tool
Zotero	Non-generative	Reference management tool

Table 1. AI tools by category. Note: Hybrid tools incorporate both generative and non-generative AI.

DATA COLLECTION

Following recruitment into the study, participants completed the pre-questionnaire, a self-assessment measure incorporating the eight AVM parameters: awareness, readiness, ethics and privacy, equitable access, academic integrity, professional development, participation, and progression (Shailendra et al., 2024). A six-point Likert scale gathered participants' perceptions on their exposure to and use of GenAI (Kusmaryono et al., 2022). The same questionnaire was completed after the eight-week period when students were actively using GenAI and AI-assisted tools for learning purposes as described earlier. At the end of the eight weeks, participants elected to attend one of two in-person focus groups. For the focus group interviews, the researcher developed six open-ended questions to facilitate discussion of participants' experiences and perceptions of using AI tools (de Villiers, 2024). These were pilot-tested to assess their suitability. The focus group discussions were recorded and transcribed using Toi Ohomai's Microsoft Teams. A paper sentiment technique (three words on a card) was used to close each of the sessions (de Villiers, 2024). The collected data are stored in Toi Ohomai's secure cloud storage and will be retained for three years to accord with ethical guidelines. As the study was confidential, not anonymous, a code was used to identify individual participants' data (Elliott, 2018).

DATA ANALYSIS

The pre- and post-questionnaire data (ordinal level) was analysed via Microsoft Excel statistical functions, to generate pivot tables, and checked for reliability using IBM SPSS 29 software (IBM, n.d.). The internal consistency of the questionnaire was assessed using a Cronbach's alpha analysis with a coefficient of 0.859 reported, indicating that the questionnaire was a reliable measure (Carter, 2018). Manual thematic analysis of focus group transcripts (Hyett et al., 2014) and triangulation (Csiernik & Birnbaum, 2024) strengthened the study's findings.

FINDINGS

Analysis of the post-questionnaire data indicated that participants were more informed and insightful regarding GenAI tools than earlier in the semester, with a 66.7 percent increase in the GenAI "awareness" parameter items and a 55 percent increase in the "readiness for GenAI adoption" measure. Overall, the growth in respondents' awareness and willingness to adopt GenAI technologies was 62.5 percent (de Villiers, 2024). In both the pre- and post-questionnaires, the vast majority of students responded positively on measures of engagement, motivation, commitment, and completion for the "participation" parameter.

"Equitable access" parameter items evaluated how accessible GenAI technology is across Toi Ohomai, compared to similar organisations and geographic regions. "Agree" and "strongly agree" responses for this parameter rose by 50 percent in the post-survey; however, the number who were unsure had also increased. Two parameters measured participants' perceptions that the number of "academic integrity" and "ethics and privacy incidents" were a concern. More agreed or strongly agreed with the relevant scale items in the post-questionnaire survey, with a 62.5 percent increase across the measures, indicating that concern about these issues increased in the post-questionnaire. This suggests a positive relationship between GenAI awareness and use, and concerns about academic, ethical, and privacy breaches.

These findings have implications for Toi Ohomai in relation to provision of GenAI tools, and for the support required by both students and staff to understand and engage effectively with GenAI technologies. Analysis of the qualitative data from the focus group discussion echoed these concerns. Students' opinions were influenced firstly by their fear of engaging with the technologies, considering institutional guidelines and the warnings in some settings that AI use was forbidden, and, secondly, due to lack of knowledge of how these technologies can be implemented.

Data from the survey and focus groups was integrated according to the AVM parameters measured by the pre- and post-questionnaires. These parameters and the associated themes drawn from the two sets of questionnaire responses, interview data, and the paper sentiment tool, are presented in Table 2. The integrated data provides insights into participants' awareness, willingness to adopt, usage of, and concerns regarding GenAI technologies.

Parameter	**Themes**
Awareness of GenAI technologies	Initial reactions/perceptions—mixed feelings Value for learning identified Satisfaction increased by use
Readiness for GenAI adoption	Willingness to use a range of GenAI tools (see Table 1) Preferred tools
Ethics and privacy	Ethical concerns—impact on creativity and originality of work Ethical challenges—privacy risks
Access	Multilingual contexts—translation functions made dense academic material more accessible and lowered stress Institutional support Access to GenAI tools required
Academic integrity	Impact on teachers and teaching Ethical concerns regarding academic integrity Caution required when using AI in academic work A framework for responsible use of AI is needed
Professional development and training	Frustration and negative emotions Training opportunities and supports needed
Participation	Enhanced learning Motivation and engagement increased Benefits of AI in learning Effective completion of coursework
Progression	Effect on learning—ability to plan and manage tasks Availability of immediate feedback Challenges and limitations

Table 2. Academic Evaluation Matrix (AVM) questionnaire parameters and related themes.

Participants' responses to the paper sentiment tool, completed during the focus group discussion, are visualised as word clouds in Figures 1 and 2. These word clouds display words and phrases recorded by participants as they reflected on their interaction with GenAI technologies. The prominence of each word or phrase in the cloud relates to how frequently it appeared. These responses directly informed the thematic analysis.

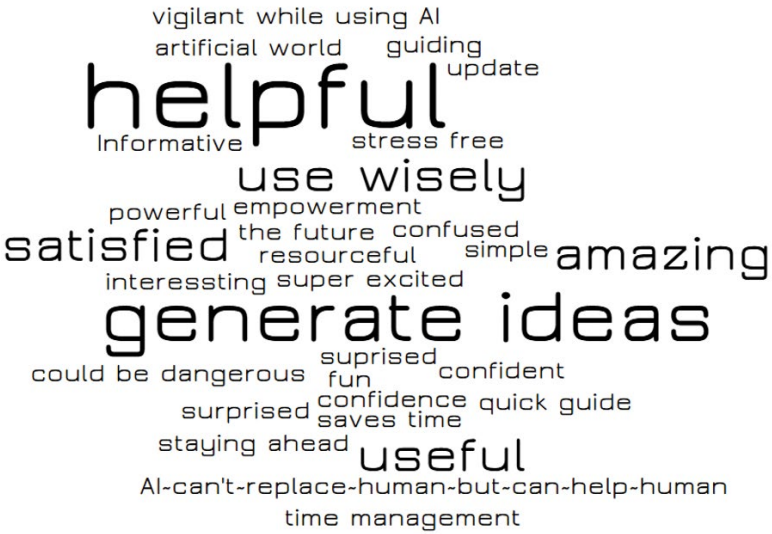

Figure 1. Experiences with GenAI—Sentiment output. Word cloud generated in WorditOut.com (Enideo, 2025).

Figure 2. Feelings and perceptions when using GenAI—Sentiment output.
Word cloud generated in WorditOut.com (Enideo, 2025).

The focus group discussions revealed complex, interwoven perspectives, showcasing diverse emotional responses. Use of GenAI tools during the case study generated positive emotional responses and feelings such as "happy," "excited," and "enthusiastic." Furthermore, emotions such as "relieved" and "relaxed" indicate a possible reduction in stress levels.

However, participants also responded with words such as "anxious," "worried," "confused," and even "angry." In their orientation participants had been strictly prohibited from using GenAI. Once they consented to participate in the study and were using GenAI, some expressed anger, perceiving that they had previously been deprived of effective learning tools, especially those that could give simplified explanations of course material. This functionality was seen as highly valuable to increase understanding. Also, GenAI tools such as Cogniti were available 24/7 when participants had a 'burning question.' Yet, having been warned not to use AI, learners in the study were still worried and confused as to whether this use was ethical. In addition, some Adult Teaching Practice participants expressed unease about using the Cogniti chatbot available in their Moodle site, which was customised to provide feedback on their teaching philosophy and critical reflection. They were fearful that their tutor might judge them for their 'weaknesses' by checking their interaction with the chatbot. Once the tutor was made aware of these concerns, they reassured students that this would not be the case, and actively encouraged them to engage with Cogniti before submission of their final assessment.

Overall, the study illustrated the value of GenAI for the participants, notwithstanding their concerns about ethical principles and the need for structured support for GenAI use from Toi Ohomai. Some participants shared that, when first entering the unfamiliar territory of GenAI, they felt hesitant. However, this hesitation soon transitioned to an appreciation of the practical benefits GenAI tools could offer in overcoming language barriers and improving academic performance. Participants acknowledged their concerns about the potential for over-reliance on GenAI and for ethical and privacy breaches. They themselves had earned their qualifications without using GenAI, and could reliably critique GenAI outputs, but worried that newer learners might not be able to do this. Participants further expressed discomfort at how GenAI may impact academic integrity in the future in terms of authentic assessments, critical thinking, and the genuine learning experience. Nonetheless, they were motivated by their newfound access to knowledge and information and the positive impact GenAI had on their work-life/study-life balance. These findings aligned with the results of the questionnaire data analysis.

DISCUSSION

This case study offers learners' perspectives on GenAI adoption at programme level. While existing research highlights the potential of AI use from an institutional or policy standpoint (Chan, 2023), this study considered how postgraduate students experienced the emotional, ethical, and practical scenarios of adopting GenAI for learning.

The use of the 4E framework (Shailendra et al., 2024) at the student level was a novel contribution. The study demonstrated how the enable and experiment phases were experienced personally by the students, while the AVM provided a structured method to measure perceptions and concerns. In the embrace phase, the study received faculty and ethical approval, demonstrating the institution's intent and commitment to adopt GenAI (Shailendra et al., 2024). The students' intent was signalled via the informed consent process, although the selection and degree of AI tool use was freely chosen by the participant. The enable phase focused on preparing the students by introducing GenAI tools into the learning and formative assessment process and providing practical support and ethical guidance on their use. In addition, participants shared GenAI tools they personally had identified as useful in a weekly class EdTech/IT tool presentation, and added them to their class Moodle Glossary for access by all students. During the experiment phase, participants engaged with the GenAI tools for their course work; participant data was received through the questionnaire (pre- and post-) and via the focus group discussions.

The final exploit phase involves scaling up the adoption of GenAI across the institution (Shailendra et al., 2024). This research provides valuable insights to inform GenAI adoption at Toi Ohomai. By applying the 4E framework at student level, this case study offers a perspective on how staged, ethically guided GenAI adoption can be supported in tertiary education.

Research question one asked about the experiences of Toi Ohomai Applied Professional Studies learners who were adopting GenAI tools for learning. The responses were largely positive, with many agreeing that GenAI tools added value and enhanced traditional learning approaches. Students showed a willingness to continue using and recommending GenAI for use in academic contexts. However, data analysis also revealed concerns around ethics, privacy, intellectual property, and academic integrity. While participants valued the support GenAI offered, these concerns highlighted the need for clear policies, guidelines, and clear communication across Toi Ohomai regarding ethical GenAI use.

Research question two explored participants' perceptions of the future role of GenAI tools in learning and assessment at Toi Ohomai, after using them during the case study. Overall, they were optimistic yet cautious. The students acknowledged GenAI's potential to facilitate and enhance learning, provided its use is balanced and guided by a structured framework. They advocated for institutional support, policy development, and GenAI literacy training to ensure future learners engage with GenAI responsibly and effectively. Participants expressed concern that other students might fall into the trap of misusing GenAI due to a lack of guidance. The findings revealed the need to ensure GenAI access and support are appropriate and consistent across the institution.

IMPLICATIONS AND RECOMMENDATIONS

This study confirms that postgraduate students in two Applied Professional Studies courses found GenAI beneficial, while recognising the need for a regulated environment to enhance learning and assessment at Toi Ohomai. The following recommendations address the gaps revealed by the study:

1. Clear guidelines: Clear GenAI policies and guidelines should be available to staff and students on the use of AI technologies. The guidelines should refer to privacy and intellectual property laws, and facilitate awareness of ethical and responsible use of GenAI and protect the integrity of academic work.
2. Ethics and privacy training: The gap in understanding of acceptable AI use should be addressed through comprehensive training to protect students, staff, and the institution.
3. Improved support: Students reported limited support. Support should include both accessible systems and knowledgeable staff to assist with GenAI use.
4. Professional development and training: Training for both staff and students should be offered, to build a confident, knowledgeable AI user community where current and future learners are supported.
5. Ongoing monitoring: A monitoring process should be introduced to track GenAI's impact on learning and assessment, enabling informed, data-driven decisions on future use.

LIMITATIONS

The sample size (n=16) of the study, specific to a single cohort in a specialised programme, limits the generalisability of the study findings; therefore, extending the study to different levels and additional programmes would be worthwhile. Participants (all but one student in the cohort) were self-selecting, and the study spanned only eight weeks of GenAI use. The study captured participants' experiences and perceptions within the semester; however, it cannot predict participants' long-term GenAI-related behaviours.

A notable limitation is that the final phase, exploit, which involves scaling up the adoption of GenAI across the institution (Shailendra et al., 2024) could not be tested due to time constraints and resources.

CONCLUSION

By investigating how students within the Toi Ohomai Applied Professional Studies suite of programmes ethically interacted with GenAI tools to improve their study processes and outcomes, this case study adds a valuable learner-centred perspective to the conversation on the role of GenAI technologies in tertiary education.

Multilingual participants confirmed the potential for GenAI use to reduce study-related anxiety, increase efficiency, and support the learning process. However, the study also revealed negative perceptions and emotions that arose in relation to GenAI use, even when the use of specific tools had been encouraged. There is therefore a pressing need for consistent, transparent institutional guidance.

Insights from the research can inform Toi Ohomai and other tertiary education providers adopting GenAI to align with learner and industry needs. The findings suggest that successful GenAI adoption at the institutional level requires more than access to tools. A trusted framework and responsiveness to user needs are required. As education providers increasingly adopt GenAI and develop associated policies, procedures, and guidelines, this study provides a model for engaging learners in fair GenAI use.

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SCENARIO-BASED ASSESSMENT TASKS TO DEVELOP EMPATHY: REFLECTIONS ON TEACHING SOFT SKILLS

John Mumford

INTRODUCTION

Information Technology (IT) students take a core compulsory course in the Fundamentals of Information Systems Development as part of the Bachelor of Information Technology (BIT) at the Southern Institute of Technology (SIT). This course aims to assist students in developing the knowledge, skills, and understanding of information systems development, which in turn will enable them to provide organisational IT solutions, including interface design elements, and improve systems and processes. For students to meet these broad aims, they need to analyse the various key aspects of information systems with a view to studying business processes provided in an assessment scenario for a small IT business.

The demand for soft skills from employers of IT students as they join the workforce continues to be high. Galster et al. (2023), for instance, found that "in New Zealand in particular the Digital Skills Forum identified the importance of soft skills and ranked problem solving skills, creative thinking skills, communication skills, collaboration, creativity and presentation skills as most important" (Galster et al., 2023, p. 10).

The main components of IT systems are people, procedures (or processes), hardware, software, the internet, and databases and data. People are a central part of any IT system, whether they are system developers, employees, or customers as end-users of the system. Thus, soft skills form an essential component of the professional development of IT undergraduates, as such skills are required in their eventual work contexts. Galster et al. (2023) maintain that "software development is a human-centered activity" (p. 1). Moreover, despite the increasing prevalence of Artificial Intelligence (AI) and chatbots, many end-users prefer to interact with a real human being, rather than an artificial system, because "AI systems, despite their remarkable ability to process vast amounts of data and perform tasks that appear 'intelligent,' lack the subjective consciousness that characterizes human knowledge" (Yıldız, 2025, p. 5).

This reflective article outlines the teaching approach forming the basis for a lesson on fundamental information system development, students' responses, teacher reflections, and ways of connecting with the needs of individuals within the context of the BIT at the Southern Institute of Technology.

This course aims to help students to navigate systems analysis theory and practice by completing theoretical and practical assessments, involving the production of an analysis report together with a simple database. Systems analysis commonly involves gathering system requirements from scenarios, creating models of the system, designing software solutions, and testing and implementing the finished designs. Rao (2018) found that "soft skills represent a dynamic combination of cognitive and meta-cognitive skills, interpersonal, intellectual and practical skills and ethical values" (p. 216). Thus, the development of such skills can aid students to respond to varying situations in a positive manner to address technical and social challenges in their professional lives.

CONTEXT AND CONTENT

In the context of IT education at degree level, computational thinking typically includes several aspects that can be linked to soft skills. Dolek et al. (2017, p. 4) identify five computational thinking competencies: algorithmic thinking, cooperativity, creativity, critical thinking, and problem solving. Teaching soft skills, especially cooperativity and creativity, in IT courses typically involves students delivering oral presentations and being required to contribute to class discussions. Facilitating creativity in particular is commonly achieved through Project Based Learning (PBL) (Marnewick, 2023). Multiple solutions to the issues in a scenario are encouraged, including non-technological ones, such as changes in operating processes and efficient use of existing, and often unused, software features. Creativity may also involve empathy. Depow et al (2021, p. 1198) have found that, despite the challenges of defining empathy, "many researchers think empathy involves sharing someone's emotion (an emotional process), taking someone's perspective (a cognitive process), and feeling compassionate and wanting to help (a motivational process)." Thus, the development of empathy may also be facilitated through working collaboratively on small business IT scenarios, where the student is guided to think about the business scenario from the workers' point of view and becomes motivated to offer help in the form of organisational and technological solutions. Interestingly, Jami et al. (2023, p. 2) observe that "empathy is not only possessed but may also be achieved through interaction between individuals in a given context." Thus, in the business scenario context, students and teachers can both manifest and apply empathy to clients' needs.

Realistic fictitious scenarios, which may be purely represented in textual form, can form the basis for teachers to encourage empathy in the students as they engage in their analysis of the requirements for a proposed set of technical and organisational solutions. If the scenario content includes a sufficient range of users, system components, business contexts, and identifiable issues, it can provide a setting for the analysis to occur and for the students to think about the users and the issues that they face. If textual descriptions are detailed enough to provide information about business processes, staff roles, and difficulties faced by the IT company in the scenario, this can help students to perceive the people in the scenario as human beings in need of their help. Mohammed and Ozdamli (2024) observe that "the most prominent features of soft skills are emotional awareness, positivity, interaction, people management, conflict management, strategic thinking and fast learning skills" (p. 2). Students who experience teaching and learning contexts from personal perspectives engaging the capacity for empathy are more likely to gain deeper appreciation of the connections between soft skills and their future working lives.

INFORMATION SYSTEMS ANALYSIS TEACHING

The session occurred on a weekday morning in the classroom with 30 students. The class comprised young adults with a range of previous knowledge of computing and use of information technology in employment contexts. A rich pool of such experience could be drawn upon as we navigated our way through the course, informing my teaching of information systems development to connect the students' experiences to those of the individuals described in the IT system scenario. Some students might be revisiting semi-familiar material from their prior work or school experience, and others would be recommencing education after some years in the workforce and perhaps had never dealt with this topic in a tertiary academic setting. This was an ideal opportunity to present the material with a questioning approach from the outset, foregrounding critical thinking, to enhance student engagement and make theory and practice more logically and personally connected.

It was also a situation to foreground the students' life experiences as a key part of the learning process in the classroom. Students who are more familiar with IT and building software solutions, often as part of computer hobbies, might question why one would need to know about soft skills. It is not uncommon for IT students to assume that they will mainly be engaged in technical tasks, with perhaps a relatively small amount of time required of other subjects. Ivory et al. (2024) found that "broadly speaking, students are seen to hold misconceptions about soft skills and typically prefer to prioritise technical knowledge acquisition over soft skill development, which

is particularly evident for students with technical career aspirations" (p. 4). Students who have had real world experience of working in teams within their employment, would bring with them a questioning approach to their course of study, based on their life experience. They might ask, "why do I need to learn this? Don't clients just want their IT problems solved? Why is there so much emphasis on soft skills?"

In the IT industry, popular Agile methodologies such as Scrum include Sprint Review and Sprint Retrospectives, involving substantial reflective opportunities for the software teams (Shwaber & Sutherland, 2020). In addition, the Agile manifesto contains a set of principles which incorporate the importance of interactions between business people and developers, and between IT team members (Beck et al., 2001). For example, the manifesto (2001) states that "Business people and developers must work together daily throughout the project" (para. 4), and "the most effective method of conveying information to and within a development team is face-to-face conversation" (para. 6). Notably, the Agile manifesto was constructed in an era where social networking and mainstream use of AI systems were not accessible. Students in the 2020s live a very different world.

Today, AI Chatbots such as ChatGPT and Claude may facilitate an alternative, efficient means of task and response interaction, using instructions in the form of textual prompts to complete almost any type of task. Chatbot developers aim to make such communication feel more like a conversation with a person than a routine interaction with a machine. The key components of a chatbot prompt can include a task, a context, an exemplar, a persona, a format, and a tone. How many of these are present will depend upon the user's particular needs at that time. AI personas aim to imitate human traits and can play a role in the interaction, much as humans might role-play. For example, a chatbot can be instructed to behave as an irritated customer, or critique the interaction's content. Therefore, AI chatbot personas can be used to help IT professionals to better understand the needs of end-user in requirements engineering (Wang et al.,2025).

However, there are common risks associated with the naive use of personas to 'talk' with a chatbot, including the reinforcement of stereotypes. Venkit et al. (2025) identify several frameworks of harm ranging from dehumanisation to exoticism. Salminan et al.'s (2024) research involving subject matter experts found that "LLMs can generate consistent personas perceived as believable, relatable, and informative while containing relatively low amounts of stereotyping" (p. 1). Despite this, such AI systems are based on algorithms which continually try to second-guess the user and adapt to the data provided. Risks such as confirmation bias still exist, and some chatbots have been shown to provide any answer that fits what the user wants, irrespective of its truth or ethical basis. In recent times improvements are being made to mitigate these risks. For this session on empathy and soft skills, a kanohi ki te kanohi (face to face, in person) approach was adopted as most effective.

The lesson commenced with a greeting: Tēnā koutou, tēnā koutou, tēnā koutou, katoa (Welcome everybody). The learning goals and structure for the session were laid out on the whiteboard, the tutor ticking off each stage of this schedule as they were completed. The main parts of this lesson were arranged into four sections. AI was not initially used during the described lesson to allow the teaching of soft skills to proceed at a natural pace with minimal distractions.

The first section involved asking the class how they would define soft skills. After an appropriate time for reflection and response, the students' verbal responses were shared, and this prepared the class for building on prior personal knowledge and making connections between the scenario-based assessment and real-life. The resulting perceptions related well to an official definition of soft skills. Often, students added important observations that soft skills, while a vital part of social skills, are not always easy to develop, and that certain individuals tend to be more oriented towards these aspects of IT work than others. The students broadly agreed that listening to customers and trying to relate to their situations was also important but often challenging to do effectively.

Analysis of an assessment scenario requires careful reading, discussion, asking questions of the teacher, and the application of some creativity. As discussed earlier, textual descriptions of simple small-business scenarios provide

a simulated space for students to probe and identify key elements of IT systems. They also provide an opportunity for students to imagine themselves in this situation and try to sense which challenges most IT system users might face, even if these are not always explicitly stated in the scenario. These scenarios were presented in the first part of the lesson, and class discussion developed. The teacher then guided the students how to distinguish between the various elements of an IT system within the scenario, and to identify what information was provided, and what information was not explicitly provided, in the textual description but what could be formulated through reasonable assumptions, given the context. Such assumptions were discussed and validated as would be typical IT practice in business contexts. A focus on the people element of an information system was encouraged, since these systems are meant to serve their users' needs. Engaging the students' creativity and imagination—and, on occasion, humour—naturally led into the second part of the teaching session.

The second section involved the core learning activity for this lesson: an initial identification of the key stakeholders, IT system elements, organisational roles, and issues facing the simulated business. Commercial software, such as Microsoft Windows and Office 365, was specified, with minimal information about computer hardware less than five years old. As discussion ensued, broad agreement was reached between the formal use of soft skills, content, and everyday life and business contexts. Some specific information was intentionally omitted by the teacher to allow the teacher to act as the 'client' for the organisation. This approach provides a rich opportunity to prompt students to ask, research, negotiate, and make justifiable assumptions.

The justification process for such assumptions involves critical thinking skills. This teacher-guided imaginative process proved challenging to many students. Some students observed that making assumptions, even if justified, is not a substitute for facts. On the other hand, providing all the facts in an overly dense and lengthy textual scenario might overwhelm those students who are poorer readers. Including images from the IT scenario also tends to inhibit creative processes and the active engagement of the student's imagination. Upon deeper, and more deliberate reflection by the students, the narrowing of the perceived distance between what was explicit in the scenario and their key assumptions, became more evident, signalling this reflection as a relevant and very worthwhile activity. For certain individuals, this creative process produced moments of clarity, thus reducing the perceptual distance between the course assessments and their everyday lives. Valuing and drawing on students' existing knowledge, experience, and identity is a fundamental principle in effective teaching (Ministry of Education, 2018). In addition, constructivism is founded on the premise of building knowledge through joining new knowledge with what learners already know (Bada & Olusegan, 2015). Notably, Berryman et al. (2018, p. 7) found that responsive pedagogy "begins with listening—such that listeners are as actively engaged as the speaker in seeking to make their own sense of what is being said." In this way, educators "value and legitimise multiple views of knowledge and ways of knowing" (Berryman et al., 2018, p. 7).

The third section of the lesson involved asking the students to take this initial creative analytical activity a step further, by starting to draw on the content and activities in the other papers of the course as a way of broadening their perceptions of information systems analysis and development. The session involved the tutor asking questions about what topics they were studying in their other courses, and how these might relate to the key phases of information systems development. The other required courses for the first year of the BIT were Fundamentals of Programming and Problem-solving, and Fundamentals in Project Management. For example, the hardware course provided the students with a clear idea of the minimum required technical specifications for commercial systems to be useful.

As the students were provided with ample one-on-one time with the tutor, where empathy for the people identified in the business scenario was modelled, the connections between their life experiences, information systems development, and other topics started to develop. Working alongside each student evoked some very thoughtful reflections and responses, reducing the stress of trying to find, or construct, an example information system specification to complete the class activity. In addition, this integration of knowledge enhanced the students' appreciation of the BIT's interlinked areas of relevance, despite the range of topics being taught by different tutors,

with different tutor personalities and emphases. Drake and Reid (2018) identify multiple benefits of connections across subject areas including leveraging existing resources, conveying teachers' awareness of what the students are learning in other classes, and deepening of students' concepts.

The fourth section focused on reviewing and summarising the key points of the lesson. This involved the tutor reviewing the main concepts and information system development terminology presented. The students were invited to share their perspectives on how meaningful the session had been, what aspects of the session were easier than they had expected, and what parts had been more challenging than they had initially thought. Some final class discussion ensued with a recognition of the benefits of imagination and creativity in developing soft skills in relation to an information systems development course assessment. Finally, as the lesson concluded, the tutor acknowledged the benefits of reflecting on the creative process as part of the ongoing life journey to develop empathy for others and how this process is necessary for effective teaching sessions. The teaching session can be seen from an experiential learning perspective, where concrete experience informs reflective observation. The reflection can be developed into abstract conceptualisation, leading to further active experimentation. Finally, this experimentation can motivate the learner back to initiating further concrete experiences (Kolb & Kolb, 2017, p. 11).

CONCLUSION

SIT has a strong focus on vocational education and training. Qualifications in IT aim to develop technical and soft skills for further study or employment. The facilitation of deep reflection in teaching and learning at SIT engages students to challenge themselves and their often-hidden assumptions about the relevance and value of soft skills education, the concepts that are needed for a strong grasp of IT system principles, and the dispositions towards customers that accompany them. It is vital in this AI era, where chatbots start to play the roles of requested personas, that we maintain a critical stance on the development of empathy in our students through the application of in-demand soft skills during scenario analysis. This article has outlined some of the teaching and learning approaches to developing soft skills with personal reflection foregrounded, and offers reflections on various perspectives about the connections between information systems development and everyday life. Not only did the students pass the fundamentals of information systems development course, which is compulsory, but it prepared them for further study in the BIT courses that follow. Thus, the students could build on these foundations when navigating Agile-derived methodologies and more advanced systems analysis course content in future years of the programme. The students developed reflective skills to take with them on their academic or employment journeys. In addition, through sharing teaching and assessment materials in our organisational repository, other lecturers could be supported in their efforts to incorporate scenario analysis, and the critical importance of developing empathy through soft skills development. This was achieved by the teacher and students collaboratively building the foundations of information systems analysis, drawing on the wonderful potential for human empathy, the benefits of an integrated curriculum, and the application of responsive pedagogy, within the context of a degree course in information technology at SIT.

John Mumford is an IT Lecturer at the Southern Institute of Technology, whose research interests include Teaching Innovation, Mathematics Education, Adult Literacy and Numeracy and Postgraduate IT Education. John has a Master of Adult Literacy and Numeracy is committed to empowering learners to develop their critical thinking and creative capabilities.

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INTEGRATING AI INTO ACADEMIC PRACTICE: A DUAL APPROACH TO INSTITUTIONAL RESEARCH AND STUDENT ENGAGEMENT

Tony Heptinstall

INVESTIGATING AI USE AT OTAGO POLYTECHNIC

As a lecturer at the Food Design Institute, Otago Polytechnic, I have found myself both observing and shaping how artificial intelligence (AI) is influencing tertiary education. In late 2024, I led an institutional research project, *Assessing the Utilisation of Large Language Models Among Academic and Support Staff at Otago Polytechnic* (ethics approval number: 1041), exploring how academic and support staff across the polytechnic were engaging with large language models (LLMs), particularly ChatGPT. This work was prompted by increasing staff interest in AI, alongside a lack of formal guidance for its responsible integration into educational practice.

My survey gathered responses from 174 staff members out of approximately 650, representing a cross-section of academic, administrative, and IT roles. The findings showed a significant uptake: around two-thirds had used AI tools in their work, with academic and IT staff reporting the highest levels of use of approximately 80 percent and 100 percent respectively. These staff primarily used AI for content creation, lesson planning, summarising articles, or automating routine communications.

What emerged, however, was not uncritical acceptance. Many participants raised concerns about data privacy, factual accuracy, and ethical ambiguity. About 40 percent cited data privacy as a barrier and were often unsure about whether platforms such as ChatGPT were appropriate for handling student or institutional information. Concerns about "hallucinations," the fabricated or inaccurate outputs of generative AI, were also common, particularly among those working in research and curriculum development (Michel-Villarreal et al., 2023).

A significant portion of the feedback centred on cultural considerations. One-third of respondents reported discomfort with how AI tools handled te reo Māori and Māori knowledge, and 45 percent expressed uncertainty about best practices. These findings revealed an urgent need for culturally responsive AI guidelines, particularly in light of Otago Polytechnic's bicultural commitments under Te Tiriti o Waitangi (Adams et al., 2024).

To support institutional communication and engagement, I used ChatGPT 4.5 to generate an executive summary of the 11,500-word research findings. I provided ChatGPT with the key survey themes and instructed it to organise the findings clearly for a professional but non-specialist audience. I then revised the draft to check for accuracy and cultural appropriateness. Rather than delegating authorship, I treated the AI as a co-drafting tool—one that could assist in distilling complexity but still required my oversight and voice.

EXECUTIVE SUMMARY

Assessing the utilisation of large language models among academic and support staff at Otago Polytechnic

OVERVIEW

This research investigated the present state of AI usage by Otago Polytechnic (OP) staff, examining benefits, possible pitfalls, and future opportunities. One hundred and seventy-four respondents, out of 650 OP staff members, took part, representing a broad mix of academic and professional roles. The findings revealed that the majority had tried AI, often in lesson planning, research, or administrative support, while a smaller portion remained hesitant due to privacy and ethics questions. With staff expressing interest in upskilling, there is an opening to develop targeted learning support and a clear institutional policy on AI.

KEY FINDINGS AND FIGURES

High adoption in academic roles

- Lecturers and researchers reported the greatest use of AI, with around 80 percent citing use of ChatGPT or similar platforms.
- They typically turned to these tools for drafting teaching materials, summarising research articles, and generating ideas for assignments.

Diverse use cases for administration

- About 60 percent of professional and administrative staff indicated using AI for tasks such as email drafting and meeting notes.
- This group identified a particular need for straightforward training on privacy settings and data protection.

Māori knowledge integration

- Thirty-two percent of respondents expressed unease about how AI handles te reo Māori and cultural content.
- Nearly half were uncertain about best practices, underlining the importance of culturally aware AI guidelines.

COMMON CONCERNS

Privacy: Staff worry about sharing sensitive details with third-party AI tools.

Accuracy: Generative AI sometimes produces incorrect or biased results, requiring careful scrutiny.

Ethical use: Risks around plagiarism, referencing, and data handling were raised frequently.

STAFF DEVELOPMENT NEEDS

- Approximately 45 percent of participants mentioned limited time or a lack of technical support as barriers to deeper AI use.
- Many requested short courses focusing on prompt design, critical evaluation of AI outputs, and te reo Māori integration.

SURVEY CAVEATS AND LIMITATIONS

Sampling and self-selection bias: The voluntary nature of the survey may have overrepresented staff who were already interested in or familiar with AI.

Limited response rate: Not all departments had equal participation, so some findings may not fully represent the entire institution.

Personal versus professional usage distinctions: Some respondents may have based answers on personal experimentation rather than workplace use, potentially blurring the data on formal AI integration.

RECOMMENDATIONS

Structured AI training

- Offer practical sessions that teach prompt writing, validation of AI outputs, and data privacy essentials.
- Provide follow-up modules that build capability for more advanced tasks (for example, coding and analysis).

Data security and privacy measures

- Develop clear policy frameworks that spell out how and when staff should share data with external AI platforms.
- Explore secure institutional AI solutions for sensitive information.

Māori perspectives

- Create guidelines for handling te reo Māori through AI, with input from mana whenua and cultural advisors.
- Encourage staff to consult Māori colleagues early if course content involves Indigenous knowledge.

Ethical guidelines

- Publish concise advice on referencing AI-generated material and acceptable student use.
- Include examples of how to identify and correct potential bias in AI outputs.

Pilot projects and evaluation

- Identify willing departments for AI-based trials (for example, AI-assisted feedback in a specific course).
- Collect feedback from staff and learners to refine practices before scaling.

The final recommendations from the study included a tiered AI literacy programme, guidelines for culturally respectful AI use, and data privacy protocols. I also proposed pilot projects and an AI Steering Committee to oversee institutional development in this space. These recommendations have since informed policy conversations at Otago Polytechnic and sparked further interest in AI-supported professional learning.

This research has affirmed that staff are not resistant to AI, but they are cautious, curious, and in need of guidance that respects both academic integrity and cultural values. By understanding these nuanced positions, we can frame AI not simply as a technical solution, but as part of a broader pedagogical and organisational shift.

AI FOR STUDENT ENGAGEMENT AND MULTISENSORY LEARNING

While institutional policy development is essential, so too is exploring how AI can support inclusive and engaging teaching. I have brought my research findings directly into the classroom by integrating them into a pedagogical tool for my third-year Culinary Arts students. Many of these students, particularly those who are neurodiverse, struggle with the traditional demands of academic reading. Complex sentence structures, abstract language, and dense referencing can create barriers to comprehension and engagement.

To address this, I created a podcast episode based on my AI research: https://share.descript.com/view/KjrXGRApDyK

The format is a two-person, conversational analysis of the study, recorded and edited using Descript AI. The episode runs for approximately 14 minutes and covers all aspects of the research, from methodology and findings to ethical and cultural considerations. I structured the conversation to mirror how I might explain the research in class: clearly, in conversational language, and at a pace to allow students to reflect as they listen.

The initial audio was processed through NotebookLM, which helped outline the research, extract key ideas, and phrase complex material in more accessible terms. Descript added a visual soundbar, captions, and visual prompts to create a multisensory learning experience that combines audio, text, and minimal animation. For students with ADHD or dyslexia, this layered presentation reduces cognitive load, offering more points of entry into the material.

This approach has transformed how students interact with academic sources. They now approach research articles with greater confidence, often referring back to the podcast to scaffold their understanding. In assessments and reflective journals, students have shown increased ability to critique their own work and analyse research in more detail. Several students commented that this was the first time they "really understood what a journal article was saying," a shift not just in comprehension but in academic self-efficacy.

Importantly, I explicitly disclose to students that AI tools were used in producing the podcast. We discuss what this means in terms of authorship, ethics, and the role of technology in supporting learning. This models responsible AI use and invites students to think critically about how these tools might fit into their own professional futures, whether in hospitality management, food media, or culinary education.

This teaching practice does not just make research accessible, it repositions it as part of a living conversation, one in which students can participate actively. It also reflects a broader shift in my teaching: from content delivery to content co-creation, where students have the tools and the confidence to engage with complex material on their own terms.

CONCLUSION: REFRAMING AI AS INSTITUTIONAL PEDAGOGY

These two cases of an institutional research study and a teaching practice rooted in that research represent two ends of the same spectrum. In both, AI functions not as a disruptive force, but as a scaffold: one that supports deeper thinking, wider participation, and more meaningful engagement.

At the institutional level, we must continue to focus on ethical, cultural, and pedagogical considerations as we integrate AI into our practices. For teaching, we must keep adapting our methods to support the diverse needs of our learners. AI tools, used with care and reflection, can help us do both.

Ultimately, my goal is not to champion technology, but to humanise its application. If AI helps more people think more clearly, connect more deeply, and engage more equitably, then it has a place in our classrooms and our policies.

Tony Heptinstall is a senior lecturer in culinary arts at Otago Polytechnic, New Zealand. He teaches final-year undergraduate students, focusing on culinary business development, leadership, and reflective practice. His research interests include AI in education, professional practice, and culturally responsive pedagogy within the hospitality and tertiary education sectors.

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DESIGNING A CONCEPTUAL TOOL FOR AI-SAFE ASSESSMENT IN VOCATIONAL EDUCATION

Bruno Balducci, Mairead Fountain and Ana Terry

INTRODUCTION

Recent progress in generative artificial intelligence (GenAI) is compromising the validity of non-exam assessments across many sectors of education, including higher education and vocational education and training (VET). As AI evolves, the security of these assessments becomes increasingly threatened. In addition, as this technology becomes more widespread, the need for professional and vocational courses to use and teach the use of AI continues to grow. Hence it becomes increasingly important for maintaining the validity of programmes to assess students in the same skills they have developed through their learning (Moorhouse et al., 2023).

The constant erosion of assessment security is creating a "wicked problem" (Stolterman, 2008) for all stakeholders in education, including vocational assessment designers. Such problems, according to Stolterman (2008), require a "designerly" approach to human-computer interaction through a disciplined and rigorous process. What we are proposing here is a design solution encompassing both human-human and human-AI interaction, one that will enable assessment security to be achieved through authentic non-exam tasks in a wide range of fields, and where both student-student collaboration and the legitimate use of AI are made possible.

This article reports on a research project aimed at creating a conceptual instrument to help assessment designers. Our project was focused on the following questions:

> What is the most user-friendly, efficient, and widely applicable conceptual design tool we can create to enable legitimate AI use and prevent AI misuse in non-exam assessments?
>
> What improvements and insights can be gained from trialling this instrument by means of a Research-through-Design (RtD) approach?
>
> What new knowledge on vocational assessment can be generated by such an approach?

In this article, we describe the methodology and process through which we achieved our research aims, as well as the resulting conceptual framework and design tool (available at: https://aisafedesign.com), and how this can be used in VET.

LITERATURE REVIEW

In the context of vocational assessment, the problem of GenAI, although ill-defined, can be apprehended in terms of "AI misuse." The literature largely describes this as academic misconduct or cheating, against which the standard response is to use academic integrity policies whose aim is to "raise awareness and discourage misuse" (Xie et al., 2023, p. 80). From a design perspective, such misuse may be understood as any use of AI in assessment work that prevents the full and fair assessment of students' learning, while legitimate use may be seen as the direct opposite.

With AI's continuing development, this problem of misuse will become ever more pernicious. In the long term, the only viable way of protecting assessments will be through their design. Yet little attention has so far been given to this approach as compared to standard academic integrity procedures. It is therefore important to make the distinction between the two approaches clear. Henceforth, the term "AI-safe" in this article refers to assessments in which AI use by students may or may not be assessed and whose security against AI misuse rests entirely on the way they are designed.

The question now arises as to which guiding principles to use in AI-safe assessment design. A number of ideas have been put forward in the literature, the most common being to make assessment tasks personalised, creative, innovative, reflective, or critically thoughtful (Jürgen et al., 2023; Michel-Villarreal et al., 2023; Perera & Lankathilaka, 2023). These suggestions may be implemented to varying extents according to the field of practice. However, since AI-generated material can appear to have any of these qualities, they do not in themselves prevent AI misuse. Other factors need to be considered.

The most important concept for AI-safe assessment design is authenticity. Writing before the public release of ChatGPT in 2022, Sotiriadou et al. (2020, p. 2134) noted that "authenticity of assessment may hold the key to reducing academic misconduct." Their argument that authenticity is vital not only for skill development and employability, but also to prevent misconduct in assessments, can be readily applied to the problem of AI misuse. Sotiriadou et al. (2020) establish their conception of authenticity with reference to the more comprehensive work of Gulikers et al. (2004), whose focus on the skills and knowledge required for professional life is ideally suited to non-exam vocational assessment.

As well as a characteristic of the assessment itself, authenticity is defined by Gulikers et al. (2004, p. 70) as the "relation to the criterion situation derived from professional practice" (in other words, a relevant situation that students may be confronted with in the workplace). This is identified through: (a) the assessment task, (b) the physical context, (c) the social context, (d) the assessment result, and (e) the assessment criteria. Because of its alignment with principles of assessment design, this framework remains the most useful instrument available for the study of authenticity in VET. It is their resemblance to real-life tasks, and their physical and social contexts, that makes assessments authentic. However, in the age of GenAI, there is also a need for a similar framework to enable AI-safe design.

From a human-centric perspective, the authenticity of an assessment task depends on whether it resembles comparable human activity in real life. Here the evidence of learning to be assessed will be found in the way that problems are solved by students using their knowledge and skills. In a world where such activity is undergoing radical transformation, assessment can only be authentic if it reflects this change. This is doubly important in vocational education, where it is essential to keep up with developments in the workplace.

As indicated in the framework by Gulikers et al. (2004), context also plays an important role. Whether or not AI use is essential to the criterion task, assessment designers need to consider the context in which the kind of work to be assessed is normally done. Given the vast quantity of material accessible to GenAI, we need to consider the scope of each assessment context. The more restricted this scope, the less data, information, or commentary will be available online, thereby preventing AI misuse altogether or limiting AI use to certain tasks. What is more, context-specific design enhances the authenticity of assessment.

As well as the physical context, Gulikers et al. (2004) see social context as a separate dimension of assessment design, which may include (some degree of) collaboration. In this case, the need to collaborate with their peers will impose constraints on what students may or may not do in order to complete their assessment. In addition to facilitating the exchange of ideas, collective decision-making and accountability to a designated peer group will provide a measure of security.

Child and Shaw (2016) note that, for optimal assessment, process must be distinguished from outcome. The ability to do this has important implications for the way students are assessed (Gulikers et al., 2004). Different criteria must be identified for evaluating student performance both in the process of assessment work and in the final product resulting from this work. It follows that the evidence on which performance in the process is judged cannot be based on the product itself but needs to come from other sources.

The process then leads to the outcome or product which is to be assessed separately. This is of course where a lot of AI use or misuse will have occurred. AI is not only able to produce material that students may submit for assessment but can remove the need to carry out preliminary work through which such material is generated. Therefore, non-exam assessment is unlikely to be safeguarded against AI misuse through a one-dimensional approach. It is the combined application of the principles we have discussed that will provide the kind of security on which such assessment once depended.

METHODOLOGY AND DESIGN

Research-through-Design (RtD) is defined by Zimmerman et al. (2010, p. 310) as an "approach that employs methods and processes from design practice as a legitimate method of inquiry." In view of the research aims outlined above, it therefore provided an appropriate methodology for our project. We found that pragmatism, identified in a survey of paradigms for RtD as the most closely aligned to quality indicators (Prochner & Godin, 2022), was best suited to our requirements. Prochner and Godin (2022, p. 7) summarise this approach as "the view that reality can be changed for the better." Our own research seeks to improve assessment practices in order to prevent GenAI from invalidating grades awarded to students. As well as alleviating a wicked problem in VET, our framework could also contribute to the development of knowledge relating to assessment design.

Both Roggema (2017) and Zimmerman et al. (2010) highlight the iterative and reflective nature of RtD. This suggested that the best design process for addressing GenAI in assessment would be one where the initial problem is closely studied, while the solution to be developed is reviewed throughout. Hence, we planned a sequence of tasks for learning and teaching (L&T) staff and subject matter experts (SMEs) in VET using the phases in Roggema's (2017) methodological model, as follows:

Pre-design phase (October 2023)

Stage 1: Investigate and research (from a "designerly" perspective):

- risks posed by GenAI to non-exam assessment security.
- useful assessment design concepts for AI risk-mitigation.
- needs of assessment designers in vocational disciplines.

Design phase (November 2023–September 2024)

Stage 2: Develop initial framework / assessment design tool.

Stage 3: Trial v1 design tool with focus groups.

Stage 4: Data analysis / review of conceptual tool.

Stage 5: Trial v2 design tool using Qualtrics survey.

Stage 6: Data analysis / design of project website / conceptual tool review.

Stage 7: Trial v3 design tool / website through individual consultation.

Stage 8: Data analysis / redesign of conceptual tool.

Post-design phase (post-September 2024)

Stage 9: Website launch.

Stage 10: Research publication, conference presentation.

Project participants

- Research, data analysis, design: L&T specialists in the project team.
- Website development: L&T specialist, SME in project team.
- Trials: L&T specialists, SMEs.

Trials procedures

v1: Reflection questions and group discussions.

v2: Assessments analysis and detailed questionnaire.

v3: One-to-one criterion-based project evaluations.

Overall, this process included a series of feedback loops or "cycles of testing and refinement" (Reeves, 2006, p. 59). Our plan allowed us to share documentation at each stage with the L&T specialists in the project team to develop appropriate protocols and guidelines. Data analysis and reflections in project team meetings were recorded and circulated for review and redesign purposes. Ethics approval for this research was granted by the Otago Polytechnic Auckland International Campus (OPAIC) Research Ethics Committee. Informed consent was obtained from all participants.

Our methods needed sufficient transparency of procedure and acceptable interpretation of data in order to meet research quality standards. Prochner & Godin (2022, p. 8) recommend the following evaluation framework:

a) *traceability* (what was done during the research)

b) *interconnectivity* (links between important concepts and elements)

c) *applicability* (useable knowledge)

d) *impartiality* (positioning of researchers' bias)

e) *reasonableness* (rationale for choices made).

When applied to our research plan, these aims were met in the following ways:

a) We ensured traceability by recording procedures and decisions and circulating these records to project team members.

b) For interconnectivity, team members engaged in exploratory discussions on the nature of the project framework.

c) For applicability, we held practical trials with SMEs / L&T staff.

d) For impartiality, we used feedback loops to foster reflectivity in our data handling.

e) For reasonableness, we described in our records all the key choices made and justified them with reference to project objectives.

The main limitation of the project was the timeframe, which did not allow a full evaluation of the tool's applicability before publishing our findings. Impact is key in pragmatic enquiry, as this approach assumes that society can be changed for the better through research. However, a full appraisal of our project in terms of its impact on assessment practice and adaptability to future AI must inevitably remain beyond the scope of this article.

FINDINGS AND PROJECT OUTCOME

From our literature review, we were able to identify the most important concepts for dealing with the negative effects of GenAI. Drawing from our own experience of assessment design, we then devised a new framework for our conceptual tool. We were aware from previous research (Balducci & Sultana, 2024) that such a framework may contain too few or too many categories to be effective. Hence, we focused on what seemed the most coherent and promising concepts with which to develop a prototype.

The first trial

Having drafted our framework, we were ready to design a prototype (v1) using these categories: specificity, practicality, collaboration, process workflow, and information flow. Our purpose was to provide a clear definition for each category in order to avoid any confusion that may result from the broader and even multiple meanings of the concepts on which these categories were based (context, authenticity, collaboration, process, and product). We also designed a set of guiding questions (samples are discussed below) and examples to illustrate the meaning of each category, derived from actual assessment practice in vocational courses delivered at Otago Polytechnic and Auckland International Campus.

We now had an instrument ready for testing. The trial collected responses from 14 participants (seven lecturers in different disciplines and seven SMEs). Participants were asked to consider what it would be like to use the tool to evaluate assessments they were familiar with. Qualitative data was gathered from the trial transcripts and the participant feedback forms, with particular emphasis on the use of terminology, conceptual definitions or explanations, and guiding questions.

Overall, participants reported that the conceptual tool was clear and useful. Their discussions indicated that v1 was fundamentally compatible with good practice in assessment design and could readily be used across different disciplines. Some doubts were expressed, however, relating to our use of terminology. Some participants struggled to unpack the meaning of questions where "data" and "information" were used interchangeably. The following example of such a question will suffice: To what extent is task achievement dependent on the use of information and/or data that has been entirely generated in the context of the task itself? As a result, we decided to replace the term "data" with "information" throughout. Students might need to submit unprocessed data as part of their work (for instance, in the form of appendices), but it is hard to imagine an assessment where they would not be required to do something with this data (and therefore treat it as meaningful information).

Some questions relating to how students may collaborate with each other were also deemed confusing. For example: Does the student carry out an individual review of their own task achievement? Participants began to wonder if this might be about getting students to take personal instead of collective ownership. In response to this feedback, we decided that the purpose of these questions had been misunderstood. The one above was in fact

aimed at identifying individual contributions to a group task in order to assess the performance of each student. Evidently, the questions (or the context in which they appeared) needed to be rethought so that the type of teamwork involved could be clearly defined.

After due consideration, we also concluded that "collaboration" was still an appropriate umbrella term that can refer to different types of arrangements for the production of assessed work. However, we agreed that not all vocational disciplines offer the same scope for collaborative activity. As Gulikers et al. (2004) have argued about authentic assessment, "if the real situation demands collaboration, the assessment should also involve collaboration, but if the situation is normally handled individually, the assessment should be individual" (p. 74). We would therefore allow for partial collaboration or individual work in the conceptual tool.

The second trial

The next version (v2) incorporated changes made after the first trial. Although there were only 12 respondents, this version was tested more rigorously than v1 because the participants included L&T specialists from an external organisation and SMEs in more diverse disciplines who completed a more extensive questionnaire to evaluate v2 in their own time.

The evaluation questionnaire was in two parts. Questions one to five asked for feedback on the five key concepts, while questions six to ten sought feedback on the conceptual tool as a whole. Since it was mostly aimed at qualitative data, the main quantitative data of value that we gathered was in answer to: What is your general feeling about this tool? The responses were 33 percent "positive," 17 percent "quite positive, 33 percent "neutral, and 17 percent "slightly negative." No respondents chose "negative." The reasons given for the "slightly negative" responses were that the language used was too complex and the tool was difficult to apply. Our priorities thus became to simplify the use of language throughout, and make v3 more accessible and user-friendly.

Many of the other questions were broad and open-ended (for example, What is your feedback relating to…?). For each one, respondents had the space to explain their answers, which enabled us to collect sufficient qualitative data for our research. Once anonymised, this data was analysed by members of the project team, first independently, then in consultation with one another. As experienced practitioners in assessment design, we could interpret our data from a learning and teaching perspective in order to decide whether action was needed to improve v2, and if so, what improvements could be made. These decisions were grouped into different types of implementation, and supporting evidence from the survey was numbered accordingly:

1. changes to the design tool's content.
2. simplified use of English.
3. changes to the graphic design.
4. new material for the website.

The data gathered confirmed the need to focus on priorities identified through the question on the participant's general feeling about the tool. Unlike v2, the next version would be more of a redesign than a series of tweaks. The findings were circulated to all project team members for consideration from graphic design and website design perspectives. They were subsequently reviewed and action points were drawn up, as summarised below:

A) Write a preamble to introduce the conceptual tool.

B) State the assumptions underlying its design.

C) Write annotations to clarify important points of detail.

D) Provide more generic examples of how to apply the framework.

E) Include suggestions for making assessments more AI-safe.

F) Improve graphics to illustrate the relations between key concepts.

G) Use simpler English and avoid terminology (or define its use).

In a few instances, where there was the possibility of making alterations to the conceptual tool itself or adding extra material that would influence the way it is perceived, it was decided to have: i) a streamlined version on the website, and ii) a fuller version as a downloadable PDF.

The following thoughts from respondents had the most influence on how the conceptual framework or design tool were redeveloped and presented in v3:

- It is unclear whether assessment security or academic integrity is the aim.
- Some users might not see there is a framework involved.
- How the key concepts relate to each other needs explanation.
- This tool seems to be about eliminating AI use altogether.
- The questions only apply to some (not all) types of assessment.
- To understand the questions, you need to know their underlying purpose.
- The examples are too disjointed or discipline-specific.
- The graphics don't convey any conceptual information.

What these responses brought home to us was how the different elements of the tool would have to be fully integrated into our website design, while the presentation of its purpose, basic principles, and possible applications ought to address the concerns and expectations of our targeted audience more directly.

Of the suggestions which were not incorporated directly into the redesign, three in particular did help us clarify what needed to be conveyed to potential users. The first related to content, while the other two were about application:

A) Critical thinking should be included as a key concept.

B) A model assessment would help to show how to apply the framework.

C) A list of criteria for assessment security would be useful.

We decided to respond to these suggestions through our FAQs, respectively:

A) In a section entitled "The thinking behind our conceptual framework," we would establish that context is the relevant key concept under which critical thinking may be subsumed. We would do this in such a way as to recognise the value of critical skills in themselves, whilst pointing out that assessment security is entirely dependent on the context in which such skills are applied.

B) We brainstormed ways of reworking our examples of AI-safe assessment into short and simple ideas aimed at different disciplines, thereby allowing for diverse practices within VET.

C) We would also continue to avoid any suggestion that our tool might be used as a checklist. Assessment design can proceed in any order or fashion that suits the designer. While we took on board the suggestion of highlighting inter-relationships between key concepts, we also needed to acknowledge that assessment design is a creative activity that should not be confined to standardised procedures.

The third trial

After redesigning the tool according to the findings of the second trial, we wrote annotations and organised material for the website. We started by changing some of our terminology to make it more recognisable to users and defining our key concepts as simply as we could.

Our concepts	Is your assessment …	What we mean
	context-specific?	The context is clearly defined and relatively limited in its scope.
	authentic?	The work done is similar to what professionals often need to do.
	collaborative?	There is a joint effort requiring equal commitment from everyone.
	process-driven?	How work is done is as important as its end product.
	generative?	New information, ideas, artefacts, designs etc. are produced.

Figure 1. AI-safe assessment design: Key concepts (Balducci et al., n.d.).

We then built a WordPress website, which was reviewed in one-to-one consultation by three evaluators in academic management using these criteria:

- The framework is clear, coherent, and sufficiently broad.
- The tool is user-friendly, efficient, and widely applicable.
- The website is well-designed, informative, and easy to navigate.

Since, according to our evaluators, these criteria were all met, this last trial enabled us to establish that our design was generally fit for purpose.

Discussions with evaluators also yielded suggestions for fine-tuning the website, leading to the following changes:

- a clear statement that it is primarily intended for VET;
- equal focus on AI misuse *and* legitimate AI use, and
- emphasis on AI-safe design as risk mitigation (not 100 percent security).

Finally, we rewrote the section on how the concepts relate to each other ("How to use AI-Safe?") so as to clarify the nature of the security that AI-safe design can provide. We identified the following areas for assessment designers to consider (Balducci et al., n.d.):

1. a specific context for learners to work in;
2. authentic work for learners to do in this context;
3. ways in which collaboration might enable them to do this work;
4. an observable process for working (partly) in collaboration, and
5. the type of content to be generated through this process.

DISCUSSION AND CONCLUSION

Institutional responses to the wicked problem of GenAI in assessment have generally taken the form of academic integrity policies and procedures, together with guidelines and recommendations for assessment redesign which are mostly aimed at minimising AI misuse (Evangelista, 2025; Moorhouse et al., 2023). In this project, we set out to develop a conceptual tool that addresses both misuse and legitimate use of AI by tertiary vocational students in their assessment work. This aim was eventually achieved by means of a design process with separate trials and feedback loops.

Our Research-through-Design approach enabled us to make a range of improvements from insights gained by trialling three successive versions in order to have an instrument in our purpose-built website which fulfilled the aims of our project. One such improvement was to include our rationale for the five key concepts in our framework. Another main improvement was the elaboration of interrelationships between these concepts. By discouraging compartmentalised thinking, we can render the framework more suitable as an instrument for coherent and global reflection on the user's own assessment design.

These insights into the design process culminated in the definition of the final key concept in the framework, namely generativeness. Here the concept is to be understood, not simply as the product generated by the assessment process, but one that can be identified as essentially the result of human (as opposed to artificial) intelligence. An assessment becomes "generative" through the application of other concepts in the framework (a possible exception being collaboration, which may not always apply). Therefore, each step taken by the designer in relation to context and other key concepts will contribute to the validity of the assessment content generated by students.

Whereas in the past, academic misconduct was limited to plagiarism and contract cheating, the development of GenAI has forced us to reconceptualise assessment design to ensure that we can differentiate between genuine student work and the activity of AI. With our framework and conceptual tool, we believe that we now have the means to do this.

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LARC AND THE HUMAN AND AI SANDWICH: APPROPRIATE USE OF AI FOR LEARNING

Emma Allen and Mairead Fountain

The emergence of generative AI (GenAI) is already reshaping education and industry, redefining the skills our ākonga need for their future. For vocational educators, the challenge of GenAI lies not just in teaching technical proficiency, but in supporting the development of the critical, ethical, and rhetorical literacies necessary for navigating AI's complex affordances. Traditional digital literacy models which prioritise functional competence are no longer sufficient. Generative AI is conversational, persuasive, and participatory. It demands a pedagogical response that is equally nuanced, reflexive, and human-centred.

As Learning and Teaching Specialists and kaiako supporting ākonga in the Postgraduate Certificate in Learning Design (PGCLD), we have encountered significant variation in how our cohorts approach GenAI: some with fear or ethical hesitation, others with uncritical enthusiasm. In response, we saw the need to support our learners to develop GenAI capabilities. This article presents the pedagogically grounded approach we developed and implemented, called LARC and the Human and AI Sandwich. The LARC framework (Learning, Articulation, Research, and Creation) contextualises these capabilities. Combined with the metaphor of a human-AI sandwich, active learning, and the UNESCO AI competency framework, LARC supports ākonga to engage with GenAI with confidence, integrity, and creativity. We aim to show how structured guidance, reflective questioning, and a healthy dose of metaphorical sandwich-making can transform tentative engagement into ethical, empowered use.

CAPABILITY BUILDING IN A GENAI WORLD

Capability building with GenAI (for example, ChatGPT, Dall-E, Claude) requires a shift away from traditional digital literacy models. Rather than beginning with basic, functional skills, educators need to prioritise critical thinking. This inversion is necessary because GenAI is not a neutral tool; it converses, imitates, and often persuades, prompting users to engage with it rhetorically, not just functionally. We have observed first-hand that ākonga struggle with these new, necessary, rhetorical skills. Often experienced educators themselves, they struggle to develop an active, critical relationship with GenAI tools.

It became apparent that our context demanded a different approach to traditional digital capability building, grounded in human-centred principles and aligned with the polytechnic's goals of future-ready, applied learning. Here, we relate and evaluate our experience with building GenAI capability and confidence in ākonga in the PGCLD and offer an adaptable, pedagogically grounded framework for others to use in their context.

THE CHALLENGE

It is no overstatement to say that the impact of GenAI on humanity has been compared to that of the steam engine or the internet; it has even been described as the main contributing factor to the "Fourth Industrial Revolution" (Schwab, 2025). As educators, we have a moral and professional obligation to our ākonga to act with

urgency to prepare them for their future careers within this new world. Employers will require graduates to have advanced skills in using the GenAI tools which are transforming their industries as much as they are currently transforming education.

Yet our sector, vocational education, has been slow to respond to these current and future needs. Kaiako and ākonga face an overwhelming range of ethical, pedagogical, and technical uncertainties. Institutions have been cautious; policy guidance has lagged behind the pace of innovation, leaving kaiako and ākonga unsure whether, or how, to engage with GenAI. In the absence of clear models for good practice, many of our ākonga fell into one of two traps: either ignoring GenAI entirely or using it with abandon without critical filters. For example, when marking the first three assignments in the programme, we found that four to five ākonga out of 20 had probable inappropriate GenAI input in at least one of their assignments, while many who could have benefited from its appropriate use avoided it altogether. Whether or not ākonga had used GenAI was ascertained firstly through our own experience in manually detecting AI-generated content, and then confirmed through Turnitin GenAI likelihood reports and conversations with ākonga. While the focus of this article is not on academic integrity, we believe that GenAI-capable and confident ākonga would be less likely to misuse GenAI and therefore be less at risk of academic integrity violations.

Before the rise of generative AI, fostering a culture of academic integrity through education, not punishment, was already recognised as more effective in reducing misconduct. Punitive measures alone do little to deter cheating or promote understanding (Janinovic et al., 2024). Furthermore, most ākonga do not intentionally deceive. For those who do, this can be for a variety of reasons, many of which do not always indicate intent to deceive and therefore deserve compassion (Eaton, 2023). Instead of punishing ākonga, raising awareness of academic integrity and involving them in discussions about policy helps build shared expectations and supports ākonga agency (Janinovic et al., 2024). This kind of collaborative, capability-focused approach inspired and laid the foundation for our work increasing ākonga understanding of GenAI to reduce both resistance to and over-reliance on these tools.

REIMAGINING DIGITAL LITERACIES

Addressing digital literacy gaps through traditional 'software training' does not get anyone very far. However, Selber's (2004) seminal approach to digital multiliteracies is still a strong foundation, articulating the functional, critical, and rhetorical dimensions and seeking to create "active agents" of users (see Figure 1).

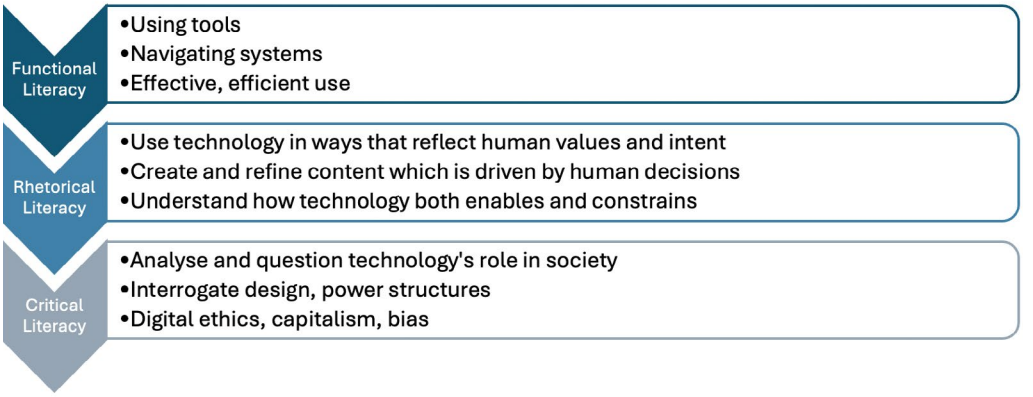


Figure 1. In Selber's (2004) model, functional literacy is achieved first; rhetorical and critical literacies are scaffolded from there (image based on Selber's (2004) framework).

In many educational contexts, efforts to develop digital literacy often start and stop at functional literacy because the technologies themselves require only one-way interaction from the user to the tool (for example, Learning Management Systems such as Moodle). Rhetorical literacy requires the user to understand the affordances (possible uses and limitations) of the technology and then to leverage these to augment human-centred goals. Rhetorical literacy requires the user to form a relationship with the tool but remain in control of the decision-making and centre human perspectives. The opportunity to develop rhetorical literacies is limited with non-AI digital tools outside of specialist software (for instance, Adobe's Creative Suite). Additionally, most organisations outsource critical literacies to specialist technical teams (such as IT or Education Technology). They bear the responsibility of evaluating the risks and benefits of new technologies, make judgements on their purpose, use, and adoption, and provide secure and appropriate access to organisational tools, absolving the average user from having to engage with critical digital literacy. Therefore, if critical or rhetorical digital literacies are considered, they are usually abstracted from the end-user's context and not integrated in any practical way into teaching or learning (Miao & Cukurova, 2024). Consequentially, we need to teach all of these dimensions in the contexts of ākonga in ways that give them agency (Bauer et al., 2025).

However, GenAI explicitly uses a rhetorical relationship; that is, rhetorical literacy is functional literacy. Further, if rhetorical literacy is successfully developed through a human-centred relationship rather than an AI-dependent one, the user will critique their own and GenAI's questions, responses, role, and decision-making. Thus, with sustained and deepening use of GenAI, rhetorical literacy drives critical literacy and vice versa (see Figure 2). To develop AI literacy therefore, specifically with generative AI in mind, we must approach this with an entirely different perspective than we do with non-AI digital tools, turning Selber's framework on its head.

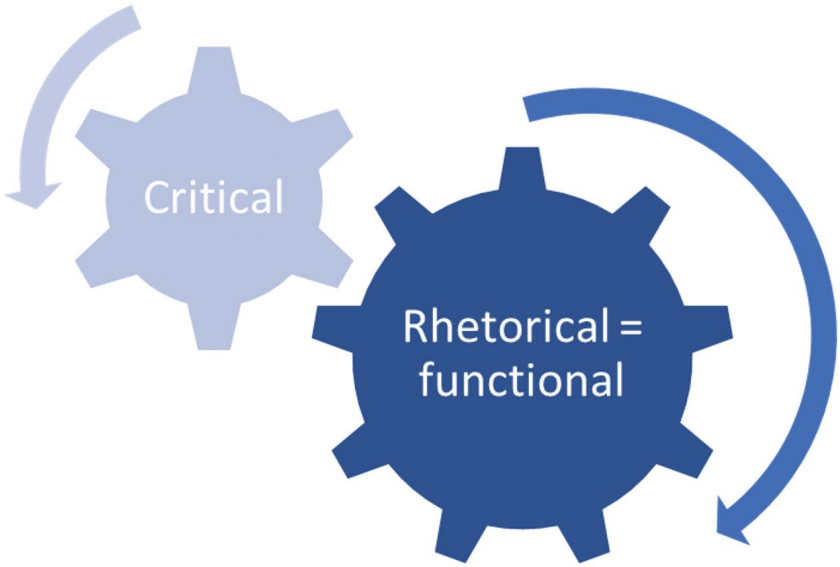


Figure 2. With GenAI, rhetorical literacy is functional literacy: driving, and being driven by, critical literacies as the human develops their relationship with the GenAI tool.

Puentedura's SAMR model of educational technology adoption (2018), provides a useful lens here. The model describes four levels of technology use: substitution, augmentation, modification, and redefinition. Substitution is the lowest level where a technology replaces an analogue task with no functional change, augmentation

where technology enhances the original task in some way (for example, efficiency), and modification where technology allows for the task to be significantly redesigned. Generative AI *immediately* invites us to consider his top tier of "redefinition," in which "tech[nology] allows for the creation of new tasks, previously inconceivable" (Puentedura, 2018, slide 6). We are aiming to transform ākonga *perceptions* of GenAI use and, ultimately, give rise to a transformation of practise and capability to ensure their work- and industry-readiness. Yet, we observe many ākonga (and kaiako) approaching GenAI at the "substitution" level, most commonly as a substitute for a search engine or an editing tool; using it superficially to rephrase, summarise, or generate outputs. These are functional tasks that do not meaningfully engage with what GenAI could redefine, limiting the development of any higher-level literacies.

We identified our priority as needing to shift ākonga away from the traditional digital technology lens when considering GenAI. We wanted them to move away from the immediate need—the functional—to the longer-term critical and rhetorical dimensions of their relationship with generative AI. We aimed to take ākonga from Bloom's (Anderson, 2001) levels of "understand" to "apply" *through* "creating"; we believed this would support ākonga to develop functional literacy *as a by-product of* developing critical and rhetorical literacy.

UNESCO's AI competency framework for students (Miao & Shiohira, 2024) integrates Bloom's taxonomy with four "competency aspects" for ākonga: "a human-centred mindset, ethics of AI, AI techniques and applications, and AI system design" (Miao & Shiohira, 2024, p. 19). The framework aligns with Selber's and Puentedura's theories. Alongside an explicit acknowledgement that these skills must be scaffolded over time, it provides a strong, practical model for developing AI literacies. Three of the four UNESCO competency aspects (human-centred mindset, ethics of AI, and AI techniques and applications) are especially relevant to our ākonga, as are the first two levels of progression ("understand" and "apply") (Miao & Shiohira, 2024, p. 19). At these intersections were six competencies we felt particularly important to develop in our ākonga (see Table 1):

- Human agency
- Human accountability
- Embodied ethics
- Safe and responsible use
- AI foundations
- Application skills.

Competency aspects	Progression levels		
	Understand	**Apply**	**Create**
Human-centred mindset	Human agency	Human accountability	Citizenship in the era of AI
Ethics of AI	Embodied ethics	Safe and responsible use	Ethics by design
AI techniques and applications	AI foundations	Application skills	Creating AI tools
AI system design	Problem scoping	Architecture design	Iteration and feedback loops

Table 1. UNESCO competency aspects and progression levels for ākonga. Highlighted in yellow are the six skills relevant to our ākonga (Miao & Shiohira, 2024, p. 19).

It is worth noting that the UNESCO "Create" progression level focuses on creating new AI tools, rather than creating through the use of current GenAI tools, which is how we have (re)interpreted this verb when discussing digital literacies.

SOLVING CHALLENGES

Having articulated the issues, framed our high-level approach, and set our overall competencies for our ākonga, our next step was to support them in their journey towards their transformation of practice. We sought out practical strategies which would suit our context and ākonga.

We started with a simple metaphor, the AI and human sandwich. The use of metaphors in education can be an effective way to anchor new learning in prior knowledge, the basis of a constructivist approach to ākonga-led knowledge creation (Bransford et al., 1999). Metaphors allow ākonga to recognise similarities and connections between their own experiences and unfamiliar concepts (Martinez et al., 2001). In our case, this metaphor enabled ākonga to visualise the layered interplay between human and AI, creating a concrete framework for structuring their emerging understanding of this collaborative practice.

The AI and human sandwich, as described by Jon Ippolito (n.d.), advocates for human-driven decision making in interactions with AI. His form of interaction "exploits the power of generative AI while also taking advantage of uniquely human capabilities" (Ippolito, n.d.). While his sandwich envisages GenAI as the bread and humans as the filling, other industry areas have reversed the metaphor to place GenAI as the filling instead. Harpreet Khurana (n.d.) from Russell Reynolds Associates uses the human sandwich metaphor to promote humanisation to avoid homogenisation. The analytical AI filling is sandwiched between human insight and human decision-making, combining human perspective and critical thinking; both things that have been suggested could be lost in the new era of GenAI use (Andriole, 2024).

Our preferred sandwich has human decision-making as the bread, as we feel this combination better supports building the UNESCO capabilities defined above. Initially, we used the simple "Human and AI sandwich" concept with our cohort but, in reality, the interplay between human and GenAI does not end with only two pieces of bread and one filling. It is a more complex back and forth between the two, where GenAI outputs can be interleaved with human nuance, experience, and creativity. In this way our metaphorical sandwich concept has grown as we have also grown in our understanding of how we can collaborate with GenAI in our professional lives. Currently, we have adapted our metaphor into that of a "Human and AI Club Sandwich" which better describes the rhetorical relationship we would like to encourage our ākonga to have with GenAI (see Figure 3). As our grasp of the true affordances of generative AI increases, our use of AI will become more complex. The emergence of new capabilities previously inconceivable will push our GenAI adoption into the "redefinition" category (Puentedura, 2018) which, in turn, will support the development of critical literacies.

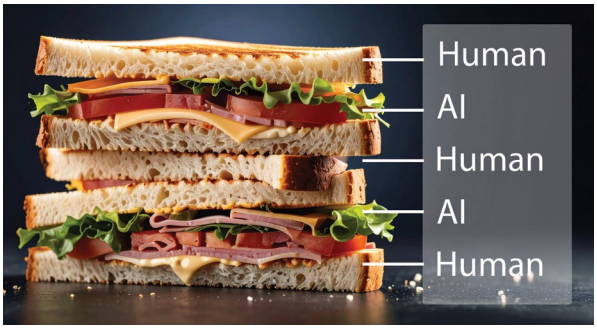


Figure 3. The Human and AI Club Sandwich metaphor illustrates the interleaving of GenAI and human nuance, experience, and creativity. Sandwich image created by Firefly.

THE LARC FRAMEWORK

Any metaphor runs the risk of being overly simplistic, especially if it is not backed up with further detail and explicit examples. Its strengths lie in big picture thinking and in cross-disciplinary and multi-level customisation, adaptable enough to suit any subject area. AI/human collaboration is still such a new concept, so far outside our previous frames of reference, that general metaphors do the work of paving the way for more complex and specific guidance. The human sandwich metaphor lays the essential base for the conceptualisation of appropriate and successful interactions between our ākonga and GenAI.

After we introduced our class to the human and AI sandwich metaphor, we observed that this was not sufficient for our ākonga. They required more structure and guidance in making informed decisions about their GenAI use. We received question such as: "But how do I *know* if it's an appropriate use?" or "Why can't I use it like that?" These types of questions made sense to us, as the metaphor was only meant to support the understanding of how to frame interactions with GenAI, rather than to provide guidance on how those interactions should occur.

To further build on this and to promote the level of rhetorical and critical literacy that we aimed for, we set out to encourage the development of "active agents" of our ākonga as described by Selber (2004). That is, learners who critically and deliberately shape their interactions with technology, not just passively consume it. We felt a series of questions would prompt ākonga to engage their critical thinking processes and encourage them to question their current relationship with GenAI. The affordances of GenAI are so broad that shaping any set of questions that would be relevant to all potential affordance areas was problematic. Consequently, we divided our thinking into four areas of common GenAI use: learning, articulation, research, and creation, forming the acronym LARC. Like metaphors, acronyms are effective memory enhancing strategies, making learning more memorable, accessible, and ultimately more enjoyable for ākonga as well (Stalder, 2005).

Keeping the six UNESCO competencies in mind, we created our prompting questions in our LARC framework. Each question in the LARC framework bridges multiple competencies in the UNESCO competency framework. The first framework section, learning, is mapped against the competencies in Table 2 as an example of their multi-facedness.

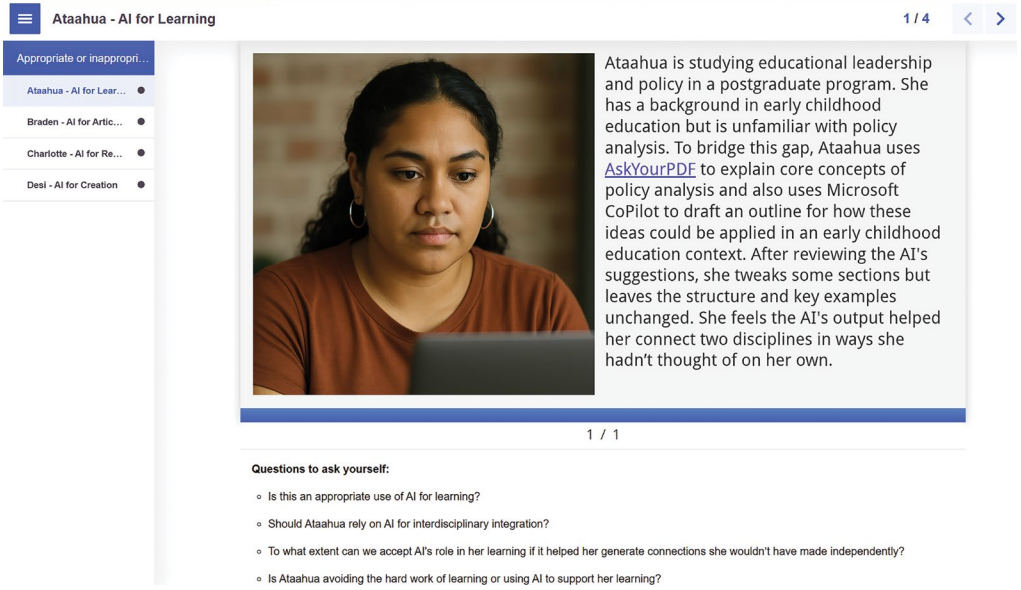
TEACHING LARC

To promote engagement with our lesson on the LARC framework, we decided to use a series of case studies to ground the learning in a real-world context and leverage the benefits of an active learning model. According to Chickering and Gamson (1987, p. 4), "learning is not a spectator sport"; ākonga must "... apply it to their daily lives. They must make what they learn part of themselves." Creating authentic learning experiences in which ākonga actively participate provides that meaningful link to personal experience and answers the question from ākonga: "how do I do this?" Case studies have the added benefit of providing the human element and connection to a fictional, but relatable situation which encourages ākonga to see past their own preconceptions and fixed ideas (Hughes et al., 2022).

Each of the four case studies we authored (with help from GenAI) were focused on a separate aspect of the LARC framework (see Figure 4). Combined with a corresponding set of prompting questions, they formed the central activity of our lesson plan. Keeping in mind that our context is a postgraduate level course, our case studies were deliberately difficult to untangle, designed to prompt a robust discussion. Ākonga were randomly assigned into MS Teams breakout rooms, each dedicated to one of four aspects of LARC. The groups were given 15 minutes to discuss the case study before being recalled to the main meeting room to present their findings.

As each case study was deliberated, the ensuing discussions and presentations surpassed our expectations. Some further prompting questions from us steered the conversations along the path of appropriate uses of GenAI but,

on the whole, ākonga managed to arrive at a consensus about each scenario. At the conclusion of the discussion, we then offered several supplementary ways the scenario character might have interacted with GenAI more appropriately, and these in turn sparked more discussion (see Figure 4). While kaiako facilitated in terms of questioning, ākonga used their own critical reasoning and judgement to co-construct a class kawa for appropriate and inappropriate AI use. This highlighted for us that both ākonga and kaiako already have these critical reasoning skills; our role is to help them apply those capabilities in new and emerging contexts.



Click here to view some insights

Using AI as an out of hours virtual tutor to help you understand something is an excellent use of the technology. However, using AI outputs in your work with only minor "tweaks" is not.

Whether or not Ataahua is avoiding learning or supporting her learning will depend on what kinds of questions she is asking and how she is using the output of the AI.

While wholly incorrect answers are unlikely, one risk is that AI may provide answers or insights which are off-track of what Ataahua is supposed to be learning in her course. It's important not to use AI as a replacement for your kaiako, but rather to support you to understand what your kaiako are teaching you.

Instead of asking AI to explain policy analysis to you... **Try** pasting in some text from an approved resource and asking AI to rephrase it in simpler language.

Instead of using AI like a search engine... **Try** uploading an approved resource and asking AI to be a *"socratic tutor to help me learn about [insert subject here]"*.

Instead of asking AI to generate examples for you... **Try** asking AI to generate *one* worked example to illustrate a concept. Then use this to support you in generating your own example for your work.

Figure 4. An example case study including alternative ways to interact with GenAI in relation to the scenario.

LARC Framework		Prompting Questions	UNESCO Competency
L	**Learning**	• Do I critically evaluate the information provided by AI, or do I accept it without question?	Human agency Human accountability Safe and responsible use AI foundations
		• Am I using AI to build on my understanding, or am I relying on it to learn for me?	Human agency Human accountability Safe and responsible use AI foundations Embodied ethics
		• How can I incorporate my own analysis or perspective into what the AI has suggested?	Human accountability Safe and responsible use AI foundations Embodied ethics
		• Have I cross-referenced the AI's outputs with credible academic sources?	Human accountability Safe and responsible use AI foundations Embodied ethics Application skills
A	**Articulation**	• Does AI assist me in expressing my ideas more clearly, or is it substituting for my original voice? • Am I using AI to refine my work, or am I allowing it to generate content with minimal input from me? • If someone asked me to explain my work without AI, could I confidently do so? • How have I ensured that the AI-assisted sections align with the academic integrity policies?	
R	**Research**	• Have I reviewed and validated the AI-suggested sources and themes independently? • Is AI helping me identify diverse and credible sources, or is it narrowing my research scope? • Am I relying on AI to analyse resources and, if so, do I understand the underlying methodologies? • Does my work clearly demonstrate my own analytical thinking and synthesis of ideas?	
C	**Creation**	• Is AI serving as a tool to enhance my creative process, or is it driving the creative output entirely? • Do I incorporate personal insights and originality into AI-assisted creations? • Can I explain the rationale behind the creative choices made, including those suggested by AI? • Have I transparently acknowledged the role AI played in the creation process?	

Table 2. LARC framework with prompting questions. The first section (Learning) has been mapped to UNESCO competencies.

OBSERVATIONS FROM THE LARC LESSON

The LARC lesson was run during the third course in the PGCLD Learning Technologies for Learning Design in 2024, between the third and fourth assessment due dates. As described above, for the first three assignments, about 25 percent of ākonga had inappropriately used GenAI. After our intervention, for the next three assignments, we observed only one submission with probable inappropriate GenAI use. Almost all ākonga were being transparent in declaring their use of GenAI.

Our anecdotal findings were an increase in the level of confidence in our ākonga, both with how they were using GenAI and in their openness about this usage. The overall result was the beginning of an ongoing positive relationship with GenAI and the courage to explore the affordances of a human and AI relationship.

Rhetorical literacy requires forming a constructive relationship with GenAI which was our explicit goal. However, unexpectedly, we observed a sense of relief and easing of a former reserve around GenAI expressed by some ākonga. Some of these behavioural and attitude differences could be attributed to their rising relational trust. Relational trust | Te whakawhirinaki hangarau with digital technology is described by Rosina Merry (2022) "as the extent to which kaiako and tauira trust that technology will have a positive influence on their teaching and learning" (p. 17). Relational trust enables a three-way relationship between technology, ākonga, and kaiako: trust in the value of the technology, trust in the use of the technology, and trust in its overall positive impact on the learning environment. Other aspects of relational trust also contribute to the creation of a positive relationship, such as ākonga accountability, kaiako competence, and knowledge of the affordances and limitations of the technology. A rise in relational trust means an increased interaction with the technology, solidifying the burgeoning constructive relationship (rhetorical literacy) that we had set out to encourage in the first place. Moreover, a rise in relational trust empowers ākonga in their own learning. The human and AI sandwich and the LARC framework contextualise and structure interactions with a nebulous unknown entity, connecting it to the recognised world, reframing the scary into the trusted familiar, and providing tools to use in future exploration of human and AI relationships.

CONCLUSION

The LARC and Human and AI Sandwich approach helped our ākonga move from uncertainty to agency, and from surface use to deeper critical engagement with GenAI. By foregrounding rhetorical literacy and integrating reflective questions across the domains of learning, articulation, research, and creation, we have started to create shared definitions and a structure for appropriate use. The result was a positive shift in transparency, capability, and relational trust. Ākonga reported not only a better understanding of how to use GenAI but also a sense of relief: our framework had made some of the unknown tangible and navigable, and as a result they felt more confident in their own critical digital literacy.

Still, challenges remain. There is a fine line between utilising GenAI's affordances and crossing into academic misconduct. Our model provides scaffolding, not prescriptions, and is not a substitute for ongoing dialogue about ethics, authorship, and institutional values. We continue to refine our approach, embedding LARC into course orientation, assessment, and future plans for staff development. Next steps include training other educators to adapt the framework to their contexts. As we collectively explore what it means to teach and learn in partnership with GenAI, our commitment is to keep human perspectives, insight, and critical thinking as the bread that holds the sandwich together; foundational and irreplaceable.

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