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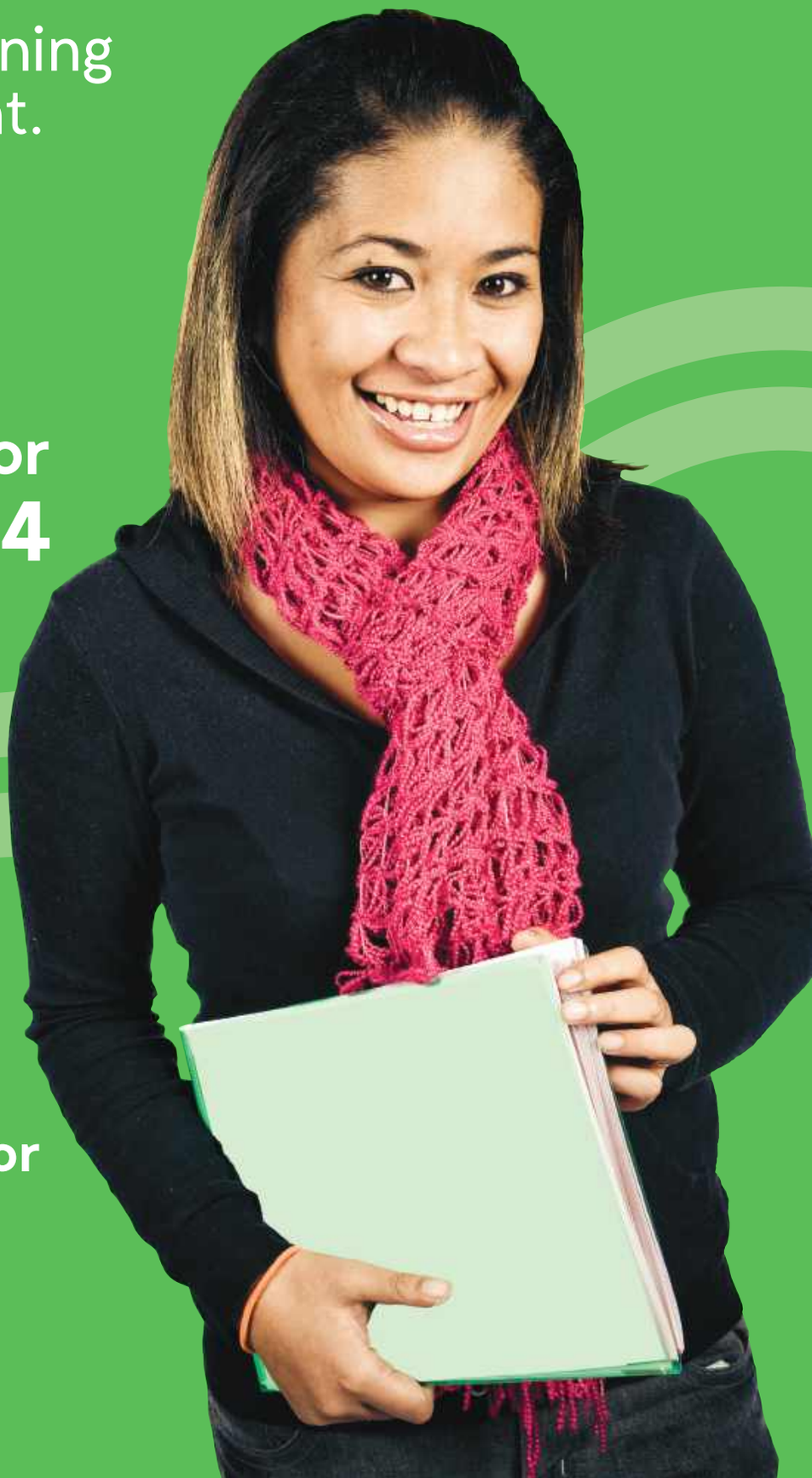

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Full Papers

An Exploration of the State of Distance Learning in New Zealand's School Sector

Dr Michael Barbour, Touro University California, Vacaville United States,

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Abstract

The use of distance learning in the New Zealand schools sector can be traced to the creation of The Correspondence School around 1922. By the 1990s and early 2000s the development of virtual learning programs were well underway with more than 20 being reported by 2010. During that time there were several isolated examinations of how the various government-sponsored initiatives aided in the development of virtual learning. However, the *Primary and Secondary e-Learning: Examining the Process of Achieving Maturity* report was the first comprehensive study of the development of virtual learning in New Zealand and the barriers faced in achieving sustainability and maturity. In addition to documenting this growth, the report also recommended the Ministry of Education expand its provision of centralized technology and support, individual programs consolidate to avoid duplication of resources, and foster the ability of individual programs to address local needs. Interestingly, over the past decade each of these three recommendations have been enacted in some way. The Ministry of Education expanded the services its provides to virtual learning programs from just video conferencing hardware to include software like Zoom, Moodle, Google Classroom, and others. Similarly, the number of virtual learning programs has decreased from over 20 in 2010 to only three as the 2023 school year begins. Finally, several of the virtual learning programs have begun to specialize their offerings to focus on specific areas of need (e.g., the Virtual Learning Network Primary on Asian languages or NETNZ on New Zealand Qualifications Authority examinations). The current nationwide follow-up study will provide an examination into the current state of schools sector distance learning, as well as an updated framework for its future development.

Introduction

The use of distance learning in the schools sector in New Zealand can be traced to the creation of The Correspondence School in the early 1900s. By the late 1990s and early 2000s the development of virtual learning programs began. Over the next three decades a complex system of virtual learning network e-learning clusters would develop, which at one point included more than 20 individual programs. Additionally, in 2000 the Government would create three regional health schools to support students when health-related challenges prevent them from attending their usual school; each of which partner with Te Aho o Te Kura Pounamu (formerly known as The Correspondence School) and also provide their own distance programming. The advent of the COVID-19 pandemic saw the mass closure of schools during successive periods of lockdown throughout the country, resulting in brick-and-mortar schools resorting to implementing emergency remote learning practices. Several private online programs/schools have established themselves in the post-pandemic context. Each of these entities have different legal frameworks that govern their operations and, depending on the nature of the entity, varying levels of public reporting.

In an effort to better understand this emerging environment, in 2011 the Ministry of Education commissioned the then Distance Education Association of New Zealand (now Flexible Learning Association of New Zealand or FLANZ) to undertake a study into the development of virtual learning in New Zealand and the barriers faced in achieving sustainability and maturity (Barbour, 2011). One of the recommendations of that *Primary and Secondary e-Learning: Examining the Process of Achieving Maturity* report was that an annual national study be conducted into the nature of governance for distance learning, as well as the level and scope of activity, similar to studies conducted in the United States since 2004 and Canada since 2008. There were efforts by CORE Education and later FLANZ in 2015, 2017, and 2020 to undertake this study. However, those efforts did not materialize for a variety of reasons.

Since that initial national study, the landscape of distance learning at the schools sector has changed dramatically, but also remained relatively consistent. Te Aho o Te Kura Pounamu is still the main provider. The clusters within the Virtual Learning Network have rationalised into two organizations (i.e.,

The problem being addressed

A national survey of schools sector distance learning organisations to examine the regulatory regimes that govern each of these groups and describe the level of distance learning provided by each organization during the 2023 in order to identify trends found within the data collected from the distance learning providers and make recommendations to allow for a rationale growth of schools sector distance learning in New Zealand.

Study design/Approach

There are two separate, but related projects that will be presented in this session. The purpose of the first research project was to undertake a national study of the nature of regulation/governance of distance learning programs and their level or scope of their activity during the 2023 school year. Essentially, a New Zealand version of similar, existing national studies that occurred in Canada and the United States. The specific research questions that were explored included:

1. What is the nature of governance of schools sector distance learning in New Zealand?
2. How is schools sector distance learning in New Zealand resourced?
3. What is the extent of schools sector distance learning activity in New Zealand?

The data for this study was collected through surveys sent to the leaders of schools sector distance learning programs throughout the country (see Appendix A). The survey was actually deployed using a combination of strategies designed to increase the chances of participants responses. For example, the tailored method design that called for potential participants to be sent prenotification messages prior to launching the survey (Dillman et al., 2014), along with sending the survey and multiple reminders over a period of four weeks (Schaefer & Dillman, 1998).

The purpose of the second research project was to The goal for this new study is to describe an educational ecosystem that could leverage these advantages in all corners of the schooling sector, which will require that we make recommendations to remove specific impediments. The specific research questions we have decided on are:

1. What is the opportunity to create an ecosystem for schools in New Zealand that (a) leverages the contributions of multiple providers; and (b) achieves scale and sustainability?
2. What are the steps needed to achieve that vision?

Our data collection to address these questions was designed to be informal, and was collected through interviews and focus groups with schools sector distance learning leaders and stakeholders throughout the country. While there was no formal interview protocol, questions provided to participants in advance to allow them to think about things they'd like to discuss included:

- From your perspective, what are the challenges facing the current K-12 distance learning environment?
- What are the obstacles that would need to be overcome to grow or increase the level of participation in K-12 distance learning?
- Are these items legislative? Regulatory? Practical? Cultural?
- What would need to occur to overcome these challenges or obstacles?
- What would need to happen for all students to be able to enroll in K-12 distance learning?
- How do we transition over the next decade to a seamless system where all students can learn in person or at a distance at any time?
- How do we transition over the next decade to a seamless system where all teachers can teach in person or at a distance at any time?
- Are there any additional issues related to K-12 distance learning, which we haven't had the opportunity to discuss, that you'd like to talk about? If yes, what are those issues?

Ethics statement

This research was approved by the Graduate School of Education sub-committee of the Touro University California Institutional Review Board.

Findings

The data collection for the first study is on-going, although based on the initial survey responses we have developed the following a taxonomy was developed to describe the types of providers of distance learning in the schools sector using terminology from the *Education and Training Act 2020*.

Table 1. Nature of distance learning entities

<table>
<tr><td rowspan="4">School</td><td rowspan="3">Public</td><td>Distance school*</td></tr>
<tr><td>Special institution</td></tr>
<tr><td>State school</td></tr>
<tr><td colspan="2">Private</td></tr>
<tr><td rowspan="2">Program</td><td colspan="2">Non-profit</td></tr>
<tr><td colspan="2">For profit</td></tr>
</table>

* There are additional types of public schools outside in the *Education and Training Act 2020* beyond these three. However, at this time those other types of public schools do not provide distance learning.

An examination of the landscape in New Zealand finds that there are two types of entities or organizations that provide distance learning. The first type are providers who are defined as schools within the *Education and Training Act 2020*. Similarly, the act defines different types of public and private schools - many of which provide distance learning. The second type of provider is not referenced in the legislation, so the label “program” was assigned to those providers. This label was further delineated into a non-profit category (i.e., those programs established as charitable trusts) and a for profit category (i.e., those programs that were set-up as private enterprises).

Similarly, the data analysis for the second study is on-going. However, our initial analysis indicates that an ecosystem for schools in New Zealand that (a) leverages the contributions of multiple providers; and (b) achieves scale and sustainability would include:

- An ideal educational ecosystem has student agency and choice.
- An ideal educational ecosystem is equitable and inclusive.
- An ideal educational ecosystem is cohesive and coordinated.
- An ideal educational ecosystem is innovative.

Participants outlined four specific steps – or rather areas where steps needed to be undertaken – in order to achieve this vision.

1. There need to be leadership at all levels from schools to distance learning providers to the Ministry of Education to the Government to pursue policies that recognised that the physical school building may not provide the best educational setting or modality for all students all of the time.
2. There needs to be changes in how education is funded and resourced, in particular there needed to be mechanisms that allowed the funding for each student to be broken up and given to those who actually provided the education for that student.
3. There needs to be infrastructure and systems changes that allow students to have their learning tracked in much the same way that the government is able to track an individual’s health care or an individual’s employment.
4. There needs to be a re-envisioning of the role of the teacher, and then teacher education programs and teacher professional development needs to be adjusted to ensure that current and new teachers are ready to fulfil those new roles.

Discussion and conclusion

The first study should be completed around the end of May or mid-June. We have also received some additional funding and, once we have received the 2023 response from each organization, we will be requesting data from the 2019 to 2022 school years. This additional data collection will allow for a pre-pandemic, pandemic, and post-pandemic analysis of the scope of distance learning. This follow-up data collection should be completed in July.The second study should be completed around the end of June. As such, both studies will be released prior to the FLANZ conference.

Over the past three decades, the resourcing of distance learning has been based on contracts from the Ministry of Education to individual organisations to provide specific services. The findings of this study would form the basis of data-driven recommendations to formalize distance learning within the school sector. The pandemic showed that distance learning within the school sector was possible, but it also highlighted much of the inequity within the system. It is important to understand distance learning prior to the pandemic, the specific impact the pandemic had, and how it has emerged post-pandemic.

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Appendix A

Schools Sector Distance Learning Provider Survey

1. What is the name of your distance learning school/program?

2. Indicate who is completing this survey on behalf of your organization.

3. During the 2023 school year, how was your sdistance learning program governed or regulated? If appropriate, please attach any governance document (e.g., organizational by-laws or constitution, legislation, etc.).

4. During the 2023 school year, how was your distance learning program funded and/or resourced?

5. During the 2023 school year, how do schools or individual students participate in your distance learning program? For example, are there specific conditions for participation? If yes, what are those conditions?

6. During the 2023 school year, how do you cooperate with other providers of distance learning?

7. Beyond the supports and/or resources provided to all students, do you provide any additional support and/or resources for Māori students? If so, please describe those items.

8. Please add any additional information about your program you believe would be of benefit to our research.

9. Please complete the following table for all of your offerings during the 2023 school year.

With respect to the "Nature of course/learning opportunity" column, examples might include a "regular term course" or a "regular semester-long course" or an "exam preparation course" or "cross-curricular project". If the term/phrase you use isn't standardized terminology (i.e., has a universally understood definition), you should feel free to describe what the term/phrase means beneath the table. Similarly, respondents should also feel free to generate your own term/phrase and then describe each term/phrase beneath the table.

If there is a different way that you feel better conveys the data for your school/program, please use that model (assuming that it provides similar information).

Name of the course or learning opportunity	Term offered	Amount of content in hours or frequency of class meeting (e.g., 1 hour period each day)	Nature of course/ learning opportunity	Nature of delivery (e.g., 20% synchronous/80% asynchronous)	Number of students	Number of Māori students	Amount of teacher time (e.g., 1 period/week, 30 minutes twice a week)

Artificial Generation: Formative Assessment Feedback in Narrative Online Distance and Flexible Learning through AI Integration

Anna Gubinskaya, Victoria University of Wellington, New Zealand

Abstract

This paper focuses on the student-facing use of AI-generated feedback prompted by student input in Online Distance Flexible Learning (ODFL), aiming to provide a multi-faceted cross-disciplinary perspective on the subject. The authors approach the idea of AI-generated feedback through the lens of narrative studies and communicative theory, as well as assessing available evidence of student engagement and feedback in the digital learning environment.

Timely and personalised feedback is a prerequisite for effective learning and a positive student experience. The use of Learning Management Systems (LMS) transcends the line between the intra- and extramural learning and provides students with a digital platform that enables a full range of interactions with the faculty, educational materials, and formative and summative assessment. For an ODFL provider, the LMS is an indispensable alternative to a physical campus and a space for communication between tutors and peers. However, fostering productive student engagement in a digital environment poses a challenge even to the most sophisticated LMS.

Generative AI-tools embedded within an LMS platform can be used to deliver customised feedback at scale at enhancing individualised learning experiences. Unlike the traditional feedback loop which often involves time-consuming manual marking and grading, AI algorithms provide instantaneous feedback, corrections, and suggestions for improvement, and can be utilised over multiple iterations.

This makes the use of AI-enacted feedback an attractive addition to the LMS functionality for extramural education providers; although, actual implementation is hindered by a profound lack of evidence that AI-generated feedback promotes actual learning. A conclusive decision on the concrete usefulness of AI-generated feedback is thus a necessary first step in the adoption of AI tools in ODFL.

Introduction

This paper aims to bring together theoretical foundations of communicative theory within wider narrative studies, historic and contemporary research on artificial intelligence and semiosis, and current approach to utilisation of narrative feedback in tertiary education programmes. Section 1 introduces terminology, assumptions, and limitations of research. Section 2 outlines theory of communication as seen through narrative lens and ties it with the theory of meaning-making in natural language. Section 3 is informed by literature review on the idea of artificial intelligence and meaning. Section 4 links the theoretical findings with existing empirical evidence in quality of AI-generated feedback surpassed by peer feedback. Finally, section 5 outlines directions for inquiry into better practices of feedback and potential uses for AI-generated output.

We conclude that even within the narrow boundaries of narrative feedback applicability in education, computer-generated feedback is useful for a cohort of learners that would better benefit from teacher feedback. However, the learners not equipped to utilise feedback would not have the best toolkit to work with AI-generated output to their advantage. Furthermore, other feedback strategies have all the advantages of AI-generated feedback and lack its shortcomings.

1. Assumptions and limitations

In this paper, the authors use the following definition of feedback: “Feedback is information about the gap between the actual level and the reference level of a system parameter that is used to alter the gap”. (Ramaprasad, 1983, p. 4, cited in Boud & Molloy, 2013, p. 702)

Boud and Molloy (2013, p. 700) give an overview of feedback in education and its impact. They arrive at the conclusion that unilateral transmission of feedback is insufficient to achieve the desired impact of feedback on learning. Within the learning process, it is essential that the learner receives communication on the gap between current and desirable performance, but also is informed on how successful their actions in response to previously received actions were.

It is evident from the above that behavioural learning theory is most prominent in discussions on the impact of feedback. Based on this assumption, the conclusions from this research are primarily relevant to behavioural learning theory. Limited discussion on other learning theories is given in section 5 Further Considerations.

Furthermore, as the learning, assessment, performance, and feedback processes are occurring between the actors of learning, and the desired outcome of the feedback process is change in behaviour (Boud & Molloy, 2013, p. 699), there is a tacit understanding that the educator and a learner participate in a communicative act (Boud & Molloy, 2013, p. 701). Therefore, hereinafter the feedback is interpreted as a form of communication within wider communicative theory.

This paper focuses on the verbal component of the automatically generated feedback and leaves multimodal output of AI models out of scope. The model used as a case study is ChatGPT, as it is the most ubiquitous due to its free-to-use license and prevalence as a test subject in relevant research.

2. Narrative studies and communication model

Traditionally, narrative studies are seen as a critical lens applied to literary analysis. However, the authors argue that the narrative studies approach and specifically three-level communication model are applicable to the analysis of a narrative that frames learning within learning management systems.

Extramural education providers use text (presented by a machine as in Skinner’s programmed learning theory) as a vessel to deliver units of learning to the learner (Skinner, 1958, p. 971 cited by Olson & Hergenhahn, 2013, p. 109). In this regard, contextualised learning delivered by the (implicit) educator through the learning management system is consistent with the narrative in narrative studies.

Narrative is ‘a multidimensional purposive communication from a teller to an audience.’ (Herman et al., 2012, p. 3). Narrative studies represent the message transfer occurring on three progressively narrowing planes of communication and explains the effects of the narrative through a feedback loop between text and agents of communication (Herman et al., 2012, p. 5). In the broadest sense, the level of objective reality contains figures of a real author and a real reader. The second level features the abstract (or implicit) author and reader. The intra-textual level explicitly represents the narrator and the addressee of the message (Chatman, 1978, pp. 31–34).

When applied to an educational context in Online Distant Flexible Learning, the author of the message can be represented by a learning designer or an author of the learning materials,

the ideal (implicit, abstract) author is the set of characteristics the real author (educator) chooses to apply when addressing the ideal (implicit, abstract) learner. The narrator is the set of narrative techniques represented in the text as displayed in the LMS. On the other side, the addressee is seen as a learner. As within behavioural learning theory learning is adoption of new behaviour, the ideal learner would assume such attributes as perceptiveness and pliability. A real learner would be expected to assume said qualities within the educational context.

Within the speech act, this model is consistent with human language processing from articulation to verbalisation (top-down process) and from acoustic or visual input to comprehension.

Therefore, the communication model can be adapted to the educational context in the following way:

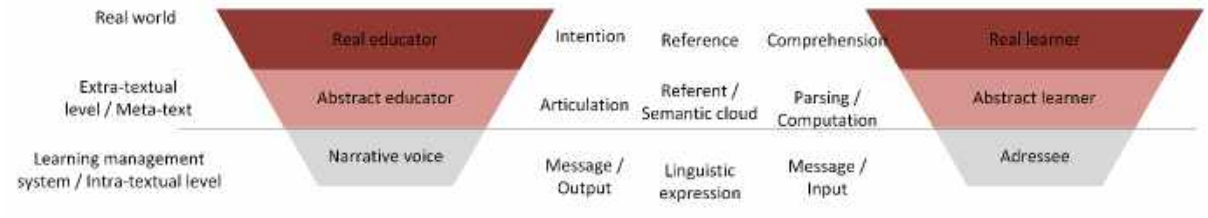

Fig. 1. The Communicative model based on Chatman (1978).

Furthermore, the real educator and learner inform a part of social constructs, such as professional community, student union, or society in general.

To deliver feedback, the following preconditions must be met (as follows from the definition) for the agent to be the agent of change in behaviour:

1. The agent is informed of the current performance
2. The agent is informed of the desired performance
3. The agent has ability to recognise and measure the difference between the two
4. The agent has knowledge of the actions that can improve desired performance

The optimal performance within the educational context can be defined based on desired learning outcomes contributing to graduate profile, on industry requirements, recommendations of a professional community, and the requirements of society more generally.

However, an artificial intelligence actor cannot satisfy these preconditions .

As a predictive tool operating algorithmic computations to determine the most probable scenario, large language models such as ChatGPT generate output based on the probability with which one token would follow another based on numerical data collected from its training dataset (Paaß & Giesselbach, 2023, pp. 38–39). This probabilistic model does not account for truth conditions of the output, nor does it have access to the intentions of the language users who produced the instances of utterance informing the training dataset.

When mapped on the communication model, AI would occupy the space at the level between the abstract author and the message.

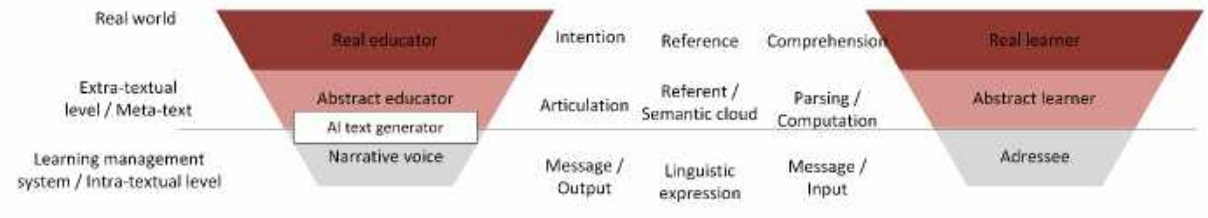

Fig. 2. AI placed within the communicative model.

As such, a Large Language Model (LLM) does not have access to reality and has no comprehension of its states or conditions. Linguistically speaking, LLM output does not satisfy truth conditions (even though some outputs may appear coinciding with true propositions). It should be emphasised that as AI operates at the level of probabilistic patterns on the level of linguistic expression of the large number of language users, it would with high chance have sufficient vocabulary to possess infinite expressive capacity, on par with a natural speaker. However, the set of propositions that satisfy truth conditions (Tarski, 1935) is narrower than the set of all possible linguistic expressions (as language has infinite expressive capacity) (Humbold, 1999; Chomsky, 1957; Jacobson, 1959, p. 234). The probabilistic nature of an AI algorithm and the expressive capacity of (any) natural language makes it increasingly difficult to pose accurate statements for the agent that has no access to objective reality and lacks instruments to assure accuracy of its output.

Thus, within the narrative theory and based on the communicative model, the use of the agent that has no knowledge of desired (optimal) performance and cannot assess its own accuracy in identifying the gap between current and desired performance achieves no goals of feedback.

3. AI output and meaning

The idea of meaning is a cornerstone of the conceptual utility of AI in education. The discourse on whether machines are capable of understanding meaning has been prominent in algorithms and artificial intelligence studies since as early as the 1950s. Lengbeyer (2022) addresses the linguistic side of the argument, poignantly pointing out two fundamental qualities of language. The word use is normative and contextualised within the social situation as assessed by the users. This feature of natural language is determined by vagueness of meaning and overlapping word meanings on the lexical level. This feature determines flexibility to describe an unlimited number of items with limited means. However, algorithm-based meaning derivation by the AI is incapable of distinguishing the nuances of meaning, as it has no access to reality of the addressee. Despite the fact that computer's input-based interference might be useful to the extent (the discourse on computers 'understanding' meaning is 'somewhat acceptable' (Lengbeyer, 2022, p. 1632), there is a vast array of arguments against machines being capable of producing meaningful output. Based on the above-mentioned infinitely expressive and normative language quality, and in addition using Lengbeyer's argument on plural perspectives shifting the meaning of the message (Lengbeyer, 2022, p. 1634), it can be argued that the machine output lacks a fundamental notion of meaning.

It is evident, however, that AI-generated text appears to be coherent, comprehensible, and at times indistinguishable from human output. It mimics narrative and can partake in ersatz communicative acts.

From a theoretical perspective, this quality of AI output poses no paradox. Should we map out the generative AI on the communicative scheme, it would not be present as an agent at the

highest level of reality (albeit it exists as a physical dimension of machines and electric signals), and it cannot determine its own implicit author persona without an input from the programmer or a prompt engineer. Consequently, AI bypasses the process of semiosis and acts at the level of pure semantics. By predicting the most plausible word combinations, AI generates output that is likely to exist. Matched against a real addressee, the AI output then undergoes a process of parsing and comprehension, and due to the vague and redundant nature of language, the reader/listener arrives at the meaning that is informed by their own prior knowledge, beliefs, expectations, and context.

Within the present context, this means that the learner should possess comprehensive knowledge of the desired performance, or the AI must be trained against a dataset that would comprehensively depict the desired performance, for the learner to receive output that can be interpreted as feedback and used as such to inform subsequent learning.

4. Empirical evidence

In 2024, there is still an insufficient body of knowledge on AI-generated feedback and its quality. However, a study performed by Banihashem et al (2024) compares the qualities of Chat-GPT generated and peer feedback for students' essays. The conclusions of the research convincingly support the theory outlined above. ChatGPT tended to provide descriptive feedback summarising the immanent qualities of the text, peers identified weaknesses of the argumentation and lack of support demonstrating their existing knowledge of the subject matter and wider context of the task.

It should be noted that peers were not trained in giving feedback, nor did they have expert knowledge of the subject-matter or advanced degrees. Thus, even low-quality feedback by peers proves to surpass AI-generated output in educational context in terms of quality (as defined by Banisham et al.). Furthermore, as pointed out by the researchers, the task of giving peer review encouraged participating learners to engage with the material and develop self-regulatory awareness (Banihashem et al., 2024, p. 2)

5. Further considerations

Discussion in sections 2 and 3 was limited to AI-generated output used as feedback for learners within an LMS and highlights that AI output is devoid of meaning and delegates the task of semiosis onto the addressee in its entirety. However, there is a perspective of AI application in feedback generation.

To rectify the above shortcomings of AI, there needs to be an actor in the loop who ascribes the meaning to the message and assumes the role of the author within the communicative model. A facilitator or a marker can be seen as an agent of communication that utilises a tool of AI text generator to streamline feedback generation, provide expert knowledge, formulate the benchmark rubric that poses as desirable performance goalpost situated within a social context.

A learning theory lens shift can conceptualise iterative feedback practice by delegating the meaning-making effort to the learner. Within the constructivist learning theory, the learner is tasked with the knowledge generation and transformation agency, and feedback by AI tools can be utilised as a trigger for self-reflective practices. Within this framework, the learner determines their desired performance and iteratively implements AI-generated feedback to assess their learning as a process and not as a behavioural change. Within the Community of Inquiry framework (*The Community of Inquiry*, n.d.-b; Vaughan et al., 2013, pp. 10–12), AI predictive output can be seen as metacognition and serve as content for critical discourse.

However, Garrison cautions against uncritical use of ChatGPT and similar tools in education without human oversight and purposeful tutoring practices when approaching AI-generated output (*The Community of Inquiry*, n.d.-a)

However, as pointed out above, other feedback practices, including peer-generated feedback, have all the benefits of AI-generated feedback, such as scalability and cost savings, while also benefitting the learners taking on the assessor's role.

Conclusion

So, on the one hand, AI-generated feedback fails to deliver on facts and truth unless it is augmented with a human agent which, in turn, limits its expected benefits of scalability and cost savings. And on the other hand, it tends to produce outputs whose interpretation critically depends on the addressee's expectations, which limits its usefulness in an educational contact where those who stand to gain most from feedback are least likely to have the sorts of expectations (of "correct answers") that would cause predictively generated text to be able to be interpreted usefully and constructively. Essentially, the proposition of AI-generated feedback use brings no value to either a learner or an institution. Which makes the AI an interesting experiment, perhaps, but not a useful tool for ODFL.

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Blending Boundaries: Innovation in Nursing Education

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Abstract

There is a need for more flexible healthcare education to meet the growing demand for skilled workers in this discipline, and this requires innovative instructional approaches. As part of this trend, the Master of Health Sciences (Nursing) programme at the University of Canterbury's Faculty of Health | Te Kaupeka Oranga shifted from a delivery dominated by face-to-face instruction and self-directed learning to a supported blended delivery through Tuihono UC | UC Online with significant portions online. One of the first two courses offered this way was HLTH466 Health Assessment, Physiology, and Pharmacology for Clinical Practice.

Traditionally delivered as a series of on-site teaching weeks, clinical practice, and self-directed learning, the redesign of the programme aimed to offer greater flexibility, enabling learners to study while balancing other commitments. In other blended deliveries, the ability to understand complex topics, flexibility in learning, increased learner autonomy, as well as a general increase in learning, were all noted as benefits (Neville et al., 2021; Jowsey et al., 2020). This transition aimed to replicate these benefits by promoting engagement and creating a sense of community.

To aid this, a Community of Inquiry framework and active learning approaches were used, as they have been shown to increase engagement and a sense of community (Garrison, 2011; Khalafi et al., 2024; Kalu et al., 2023). This new mode of delivery was initially well-received as evidenced by high enrolment numbers and levels of engagement in the course.

This study used multiple methods to gather more detailed data to explore levels of engagement and a sense of community to determine which aspects of the course have affected these most. Evidence suggests that the strategies undertaken to facilitate engagement and a sense of community have had some success, but that there is room for improvement, particularly in areas of community building and opportunities for discussion. These findings can inform future course and programme developments within Tuihono UC | UC Online as well as in the wider New Zealand tertiary context.

Introduction

The Master of Health Sciences (Nursing) at the University of Canterbury's Faculty of Health transitioned to a blended delivery, combining two intensive face-to-face periods with significant online components. This redesign aimed to provide flexibility for learners to balance study with other commitments.

It began with HLTH466 Health Assessment, Physiology, and Pharmacology for Clinical Practice and HLTH465 Professional Frameworks for Nursing Practice. This paper will focus on the former. It should be noted that both courses are 30 points, and are taken concurrently, with onsite teaching for both occurring at the same time at the beginning and in middle of the course.

The move to a blended delivery, which integrates online and face-to-face instructional methods, was chosen because of benefits like increased understanding of complex topics, learning flexibility, learner autonomy, and overall learning improvements (Neville et al., 2021; Jowsey et al., 2020). Furthermore, to promote engagement and a sense of community, a community of inquiry (CoI) framework (Garrison, 2011) and active learning approaches were taken, as both have been shown to be effective in these regards (Khalafi et al., 2024; Kalu et al., 2023).

Blended learning has been noted as particularly effective in nursing education. Studies show it enhances learning (Neville et al., 2021; Gong et al., 2021; Jowsey et al., 2020) and better prepares students for face-to-face interactions (Westerlaken et al., 2019). This can result in better theoretical and practical performance and learning as well as higher overall satisfaction. (Gong et al., 2021). Overall, blended delivery appears to be effective for nursing education, a feeling held by most nursing academic staff surveyed at Australian universities (Smadi et al., 2019).

Furthermore, online delivery, which is the primary mode of delivery for parts of this course, can facilitate access to feedback and material review, allowing learners to set the pace and location of study (Manzanares et al.; Smadi et al., 2021b). This allows study to occur when time permits, supporting work-life balance and supporting diverse learner needs, making blended delivery particularly suitable for nursing courses (Jowsey et al., 2020; Neville et al., 2021; Smadi et al., 2021b). These features allow learners to engage in nursing education that would not be able to otherwise, whether it be due to geographic location or life commitments.

Purposeful and informed design is essential for maintaining engagement in online learning. Scaffolding activities and reducing cognitive load are effective in managing learner overload (Jowsey et al., 2020), and well-designed online components have been shown to enhance face-to-face course benefits (Westerlaken et al., 2019). Research by Mills et al. (2016) and Dunn et al. (2024) confirms that design impacts both engagement and learning.

One aspect of purposeful design was incorporating aspects of the Community of Inquiry (CoI) framework, which aims to maximise the benefits of asynchronous, text-based, collaborative e-learning (Garrison, 2011). The framework emphasises three presences in e-learning: social, cognitive, and teaching, all of which can be demonstrated by both learners and facilitators.

In nursing education, the CoI framework has been purposefully and incidentally included in nursing course designs. Smadi et al. (2021b) noted that CoI framework is embedded in nursing courses despite nursing educators having no explicit knowledge of it. When implemented purposefully, it has resulted in higher social, cognitive, and teacher presence compared to control groups, as well as increased satisfaction (Khalafi et al., 2024).

Furthermore, it has been found, that in nursing education, social interactions also encourage collaboration (Westerlaken et al., 2019; Jowsey et al., 2020), while the role of the teacher, or facilitator in this case, enhances learning, a perception of care by learners, and a perceived sense of community (Jowsey et al., 2020; Mann, 2014; Mills et al., 2016). All of this points to the role of social presence and teaching presence enacted by the facilitator in maximising learner engagement and a sense of community.

The problem being addressed

This paper will explore the levels of engagement in the course, factors affecting engagement, the role of a sense of community for learners on engagement, and factors affecting this sense of community.

Study design/Approach

This study employed a multiple method approach to investigate learners' perceived levels of engagement and sense of community during the course delivery. The research consisted of a survey and a semi-structured interview with the facilitator, who is the second author of this paper. The survey and interview questions can be found in Appendixes A and B.

This 5-minute survey was designed by the first author to measure learners' perceived levels of engagement and sense of community. This was done through 9 Likert scale questions and 2 text-entry questions. The first section of 5 questions looked at engagement and contributing factors including, learning activities, formative quizzes for self-assessment, and a sense of community. A text entry question then asked about other factors affecting engagement.

The second set of 4 questions looked at which aspects of the course contributed to a sense of community, including collaborative learning activities, synchronous tutorials, and the role of the facilitator. Again, a text entry question was given asking about other factors affecting a sense of community.

In addition to the survey, a semi-structured interview was conducted with the course facilitator, recorded and transcribed. This was to determine levels of engagement compared to previous iterations and to discuss factors affecting engagement and a sense of community. The interview also explored the facilitator's perception of their role in these things.

Participants for the survey were recruited through an announcement made on the course site by the facilitator. The study had 28 out of 73 potential respondents. However, 9 of these were incomplete and disregarded, leaving a total of 19 responses for analysis, a return rate of 26%. At this stage, it is important to note that the study focused on descriptive data presentation and this study did not include statistical analysis. Demographics data was not gathered, either.

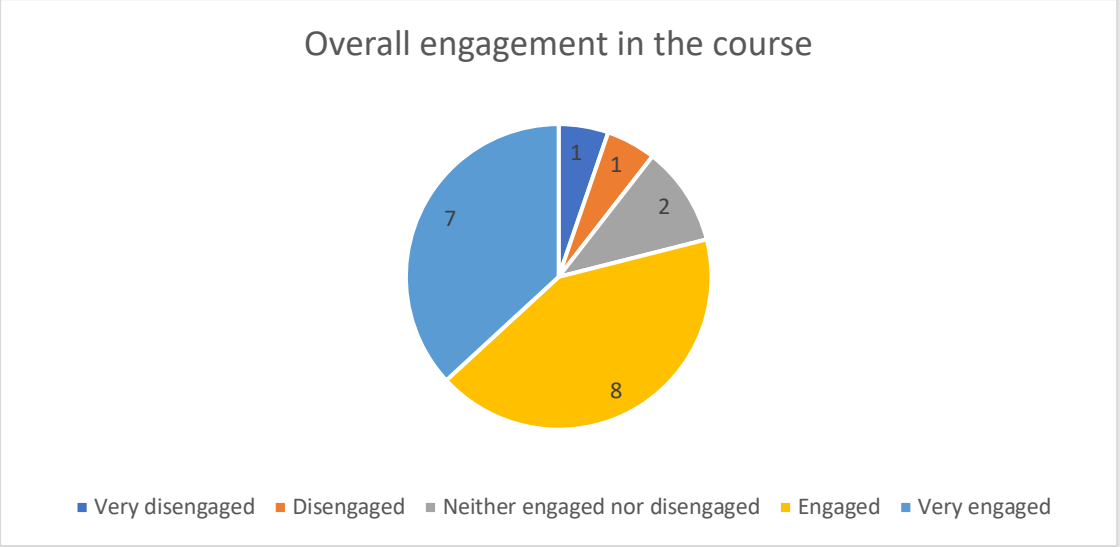
Ethics statement

Application 2024/53/LR-PS received ethics approval via the University of Canterbury Human Research Ethics Committee on 28 May 2024.

Findings

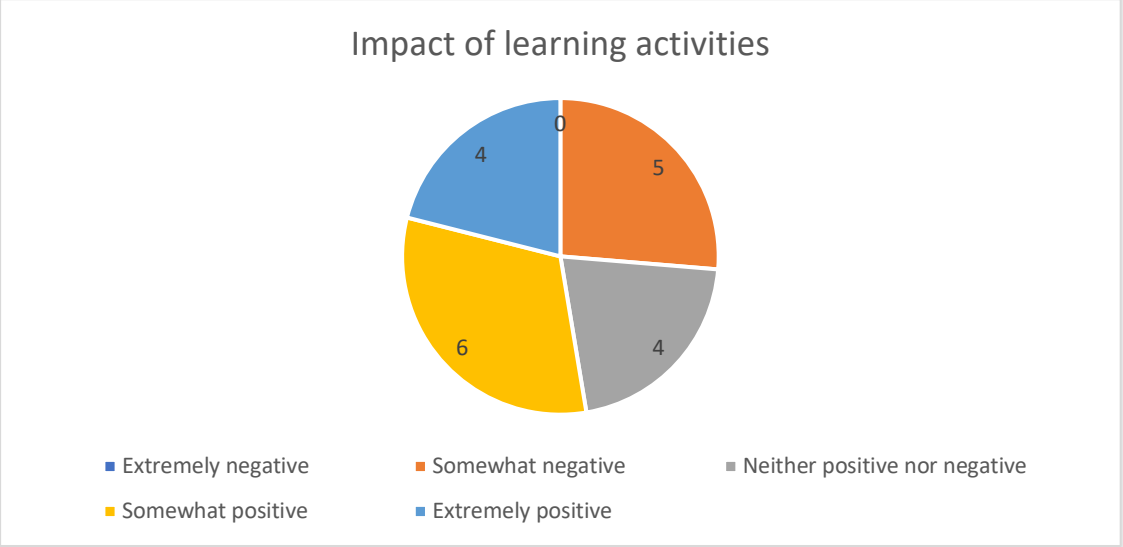
Overall engagement

Out of the 19 responses, 79% reported feeling either engaged (n=8) or very engaged (n=7), while 5% (n=1) felt disengaged or very disengaged (n=1), with 11% (n=2) remaining neutral.



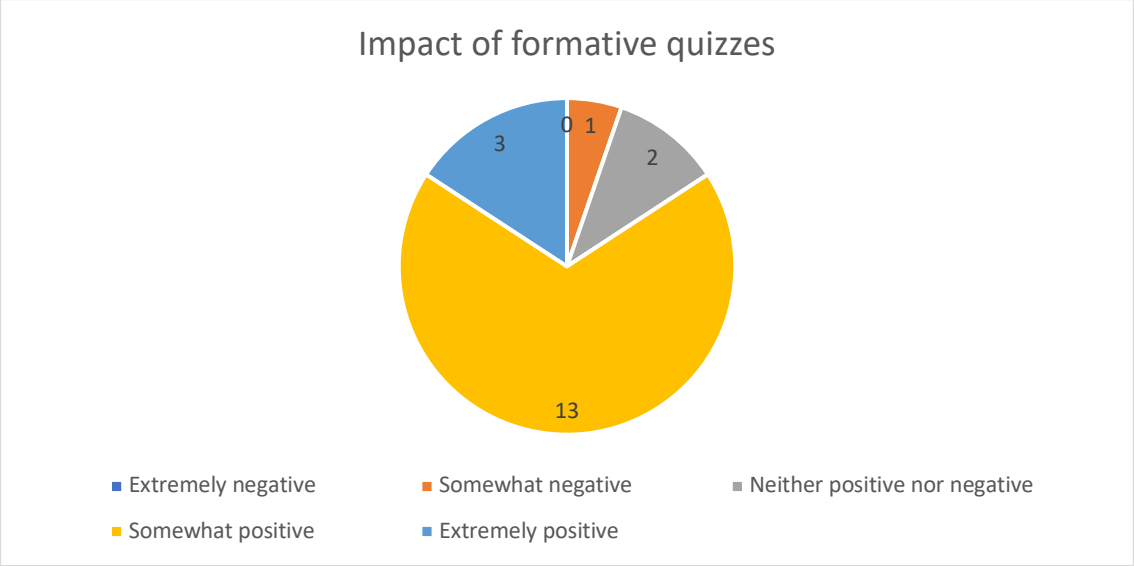
Learning Activities

Among the respondents, 53% reported either an extremely (n=4) or somewhat positive (n=6) impact of learning activities on engagement, while 26% found this to be either somewhat negative (n=5), and 21% (n=4) felt neutral. No one felt the impact was extremely negative.



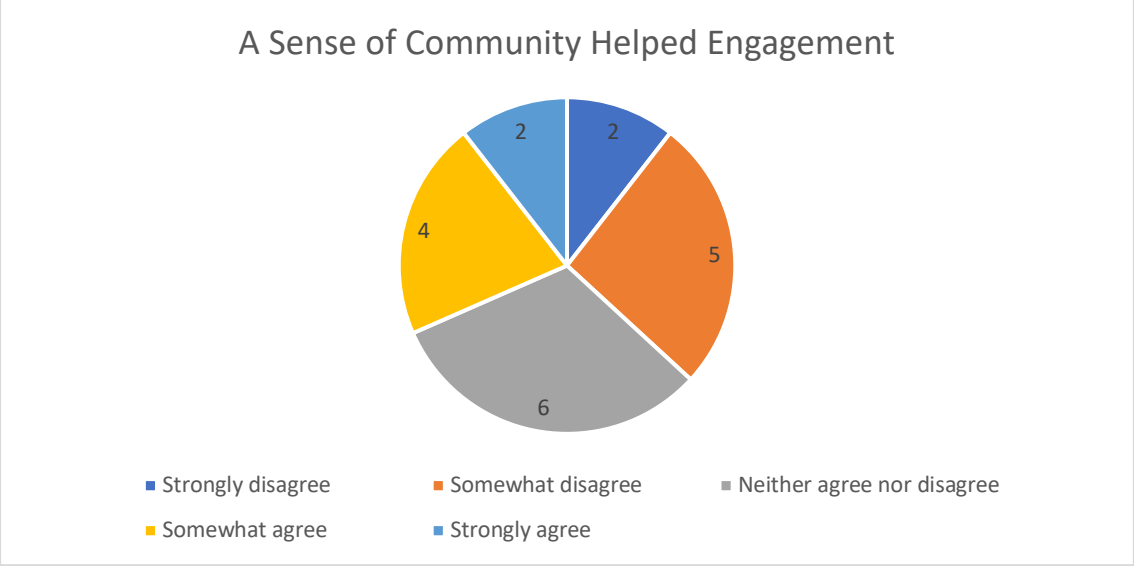
Formative Quizzes

Of respondents, 68% (n=14) indicated a somewhat positive impact of formative quizzes on engagement, with 16% n= (4) finding the quizzes extremely positive. Only 5% (n=1) felt a somewhat negative impact, and none reported an extremely negative impact. 11% (n=2) felt neutrally.



Sense of Community and Engagement

Only 32% agreed that an overall sense of community helped them stay engaged, either strongly (n=2) or somewhat (n=4), while 37% (n=9) disagreed, either somewhat (n=5) or strongly (n=2). 32% (n=6) were neutral about this.

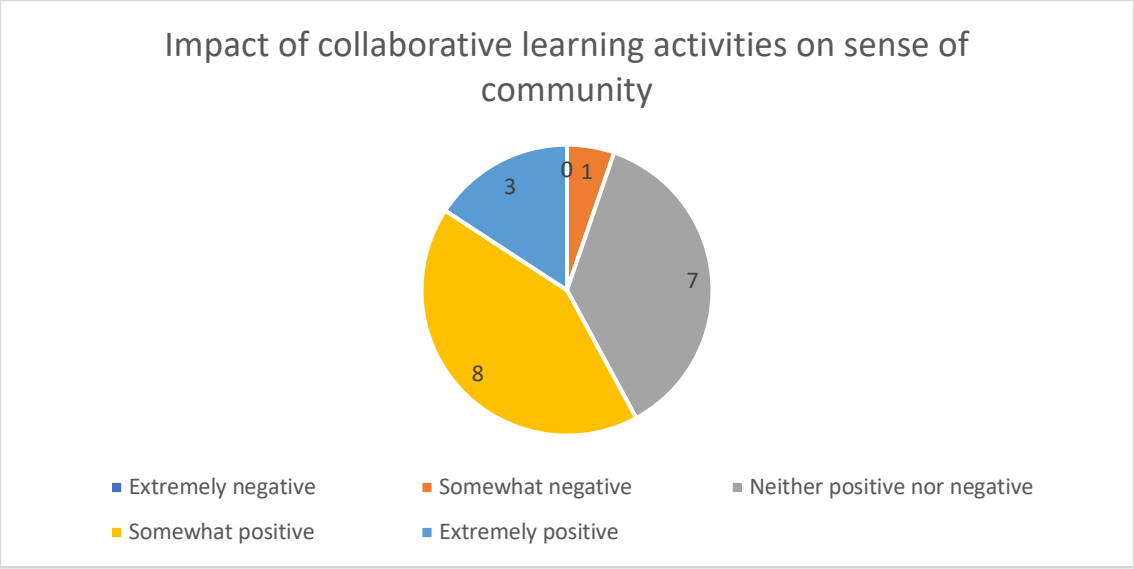


Text Entry Feedback on Engagement

In this feedback, 3 learners noted a lack of practical sessions and content volume issues, 3 commented on the predominance of text over other mediums, 2 mentioned insufficient support and lack of clear communication, and 3 highlighted a lack of discussion opportunities all negatively affecting engagement. Additionally, 2 learners cited insufficient facilitator interaction as negatively affecting their engagement.

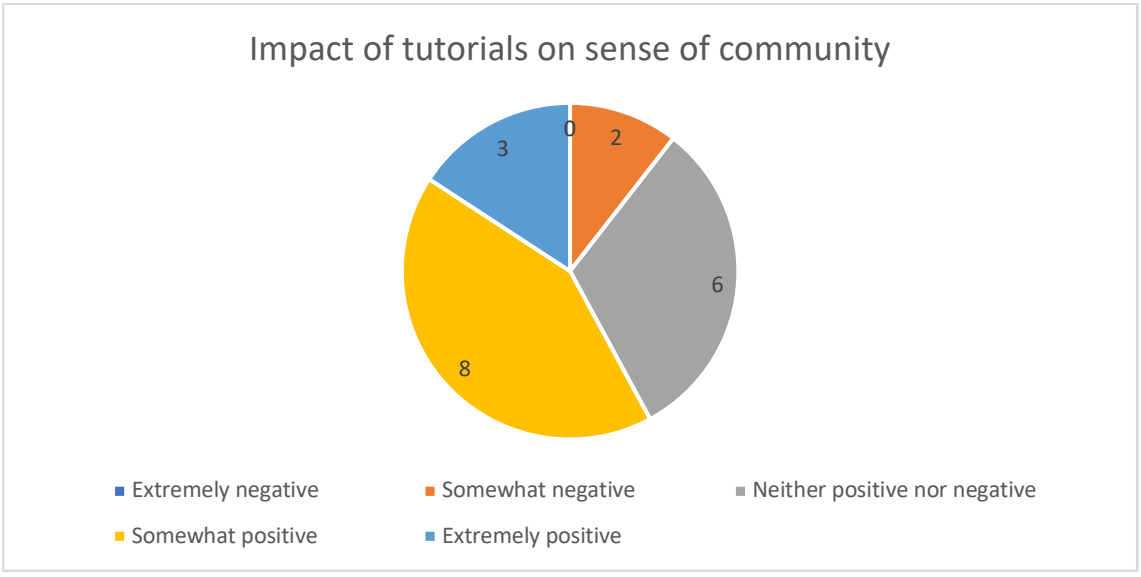
Collaborative Learning Activities and Sense of Community

Of the respondents, 58% (n=11) reported an extremely (n=3) or somewhat positive (n=8) impact from collaborative learning activities on their sense of community, while 5% (n=1) reported a somewhat negative impact, with no one reporting a strongly negative impact. 37% (n=7) felt neither positively nor negatively about the impact of these.



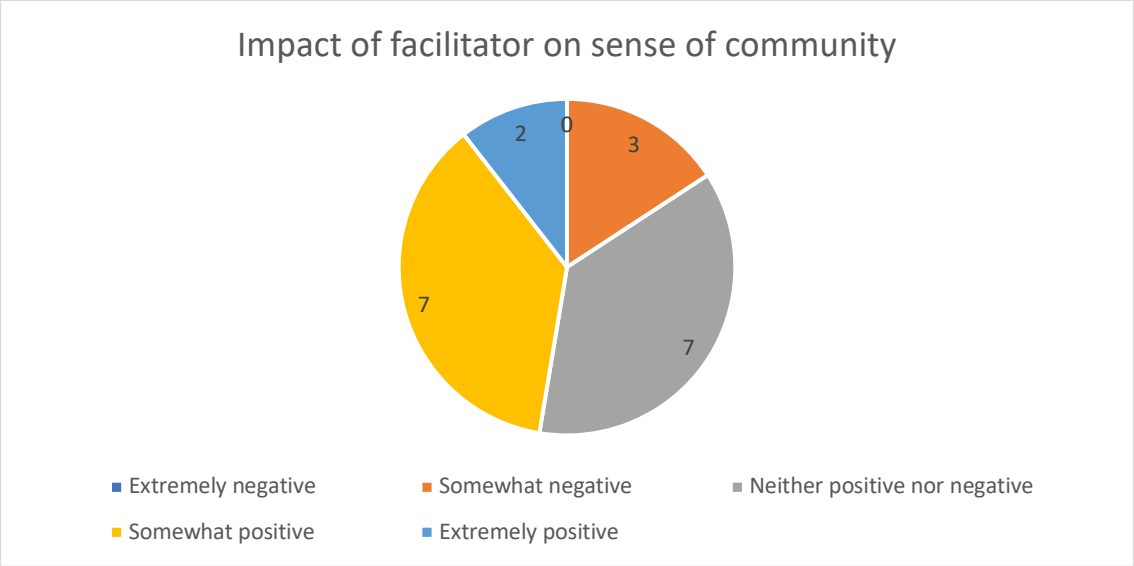
Tutorials and Sense of Community

Regarding the tutorials, 58% (n=11) reported an extremely (n=3) or somewhat (n=8) positive impact on their sense of community, while 5% reported a somewhat negative impact (n=1), with 37% remaining neutral (n=7). There were no reports of an extremely negative impact (n=0).



Facilitator and Sense of Community

Only 48% (n=9) stated the facilitator had an extremely (n=2) or somewhat positive (n=7) effect on their sense of community, while 16% felt the facilitator had a somewhat negative effect (n=3). 37% felt neither positively nor negatively (n=7), with no one feeling extremely negatively (n=0).



Text-entry feedback on community

Of the respondents, 3 noted that ties during the onsite portions of the course contributed to a sense of community and a further 3 noted that bonds formed during clinical placement had the same effect. However, 2 learners noted that a lack of opportunity for discussion negatively affected their sense of community.

Facilitator interview

In the semi-structured interview, the facilitator stated engagement levels were higher than in the previous iterations of the course. This was especially true at the start of the course, bolstered by connections made during group work during the first week of onsite teaching, and it was noted that many of these connections continued throughout the course. However, as the semester progressed, the facilitator noted that engagement waned as learners became focused on assessments and the large workload for HLTH466 as well as focusing on HLTH465, which was being taken concurrently.

From the facilitator's perspective, the main drivers of engagement were the tutorials, health assessment activities, onsite teaching, and clinical placement. While the course announcements were noted as maintaining engagement early on, this faded as the course progressed.

Regarding community, the group work during the first onsite teaching block and connections made during a Marae visit in the second block of onsite teaching were noted as being especially impactful. The facilitator also observed that learners self-organised informal communication through the social media platform WhatsApp and that this also played a role in building community.

The largest detractors from community and engagement were noted as being large cohort size (n=73) with only one facilitator per course. This created a high workload and limited ability to deliver feedback on health assessment activities.

Discussion

Survey results indicated high levels of engagement, with 79% (n=15) reporting being engaged or very engaged. The facilitator also noted higher engagement levels compared to past cohorts. However, only 32% (n=6) felt that a sense of community contributed to this.

The formative quizzes seemed to have had the highest impact on engagement, with 84% (n=16) feeling positively about their role. This could be because the ability to self-assess gave learners areas of focus and the ability to set goals for improvement, which is something found in other studies of online learning (Chen et al., 2021; Regmi & Jones, 2021).

The learning activities were the next most impactful on engagement with 53% (n=10) expressing a positive impact. These activities included reflection activities and collaborative critical thinking exercises using Padlet. They may have been effective in fostering engagement by allowing the generative processing of new information (Fiorella, 2023) and allowing learners to connect in the online space.

While the Padlet activities, which were optional, were designed to facilitate discussion, there were comments about a lack of opportunities for discussion and its effect on both engagement and a sense of community. Creating more of these opportunities and perhaps making them mandatory rather than optional may increase the level of engagement and sense of community. A review of discussion board use in nursing education found that, when used properly, discussion boards can increase engagement and help create an online learning community (Massey et al., 2019).

Another factor noted as limiting engagement was the volume of content. The large amount of material may have worn learners down as the course progressed and may have limited space for practical application of skills outside of onsite and clinical blocks. As a foundational course, this program covers essential material, but future iterations could be streamlined to lessen the burden on learners and create more room for application opportunities.

As stated previously, the percentage of learners attributing a sense of community to their engagement was somewhat low at 32% (n=6). This could be attributed to the large cohort size and lack of mandatory discussion activities, as discussed above. The lack of purposeful formation of learner groups for support could also have contributed to the low impact of a sense of community on engagement.

The tutorials and collaborative learning activities were viewed as equally important to building a sense of community with 58% (n=11) feeling positively about their contribution. This is logical as they form the primary methods of interacting during the online-only portions of the course. This is in line with Mills and others (2016) who found online learning activities and synchronous sessions promoting community and social presence for some learners and Garrison (2011) who credits online synchronous sessions with developing a sense of community.

However, Mills and others (2016) also found that some learners felt discomfort in participating in these activities. Further to this, Smadi and others (2021a) noted that even though synchronous and asynchronous communication platforms were available to learners on the

learning management system (LMS), many preferred to communicate via social media instead. It's clear that the opportunities provided for interacting in the online space may not be for all learners and other ways of connecting should be explored.

Counter to expectations, the facilitator had a relatively weak effect on the sense of community, with only 48% (n=9) stating a positive impact. It has been noted that the role of the facilitator in fostering both teaching and social presence (Garrison, 2011) cannot be understated, and that facilitator presence can strongly impact learner experience in online and blended learning (Neville et al., 2021; Jowsey, 2020; Siah et al., 2021). However, due to the large cohort size and heavy workload, it seems that the role of the facilitator in affecting a sense of community was limited. This large cohort created a very high administrative and marking load, limiting the amount of time to connect with any individual learner and the ability be active in the collaborative learning activities.

The low impact of the facilitator on a sense of community was despite great efforts made to promote these things. Multiple announcements were made each week to update learners with important course information and three tutorials were held each week to minimise the ratio of learners to the facilitator. This did not seem to have the effect on a sense of community that reflected the amount of effort being put in.

A negative effect on learner satisfaction and connectedness by large class sizes has been experienced in other online nursing cohorts. Burruss and others (2009) found that learner satisfaction and connectedness decreased when class sizes increased to large (31-40 learners) or very large (41+ learners) from medium (21-30 learners), where they peaked. Also, in a study that included a perceived sense of community for online nursing students, smaller class size was a requested feature to help build community (Seckman, 2014).

With all this said, there is still a sense that community still played a role for the learners in the course. This was noted by the facilitator who saw community being built through the onsite teaching portions of the course and further evidenced by the self-organisation of social media (WhatsApp) groups, a phenomenon found in other blended learning environments (Smadi et al., 2021a).

One overlooked factor in this study was the role that onsite teaching and clinical placement played in engaging the learners and building community. The immediacy that face-to-face interactions provide has been noted as a valuable way to create community in a short amount of time and initial face-to-face meetings have been recommended in blended course design to establish connection (van der Stap et al, 2024). While groups seemed to have formed organically, a more structured approach during the initial onsite teaching block to support group formation would ensure all learners end up in a group, increasing learner-to-learner support and engagement that lasts the length of the course. A similar approach could also be taken before clinical placement to better leverage this opportunity for connection between learners at the same location during placement.

This study does have potential limitations. There was a low number of useable responses (n=19) and response rate (26%). This may have allowed the overrepresentation of negative views. Furthermore, no demographic data was gathered from the participants, which hasn't allowed further insights into subsets of the cohort.

Conclusion

While some aspects of the course design successfully created engagement and a sense of community, social presence needs to play an even larger role in the design of future courses. Specifically, the purposeful formation of learner groups and increased opportunities for discussion could increase this, enhancing both engagement and community.

One of the biggest factors affecting community and engagement was the extremely large cohort. This created a large workload, limiting time and energy for community building, fostering engagement, and establishing a stronger teaching presence. More resources to improve the learner-to-facilitator ratio are needed, and future courses should aim to include multiple facilitators.

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Appendix A – Survey questions

1. Overall, how would you describe your engagement in the course?
   Very disengaged, Disengaged, Neither engaged nor disengaged, Engaged, Very engaged
2. What effect have the learning activities in the course materials had on your engagement?
   Extremely negative, Somewhat negative, Neither positive nor negative, Somewhat positive, Extremely positive
3. What effect have the formative quizzes had on your engagement?
   Extremely negative, Somewhat negative, Neither positive nor negative, Somewhat positive, Extremely positive
4. A sense of community has helped me stay engaged with this course.
   Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree
5. What other aspects of the course that have positively or negatively affected your engagement?
6. What effect have the collaborative learning activities had on your sense of community in the course?
   Extremely negative, Somewhat negative, Neither positive nor negative, Somewhat positive, Extremely positive
7. What effect have the tutorials had on your sense of community in the course?
   Extremely negative, Somewhat negative, Neither positive nor negative, Somewhat positive, Extremely positive
8. What effect has the facilitator had on your sense of community in the course?
   Extremely negative, Somewhat negative, Neither positive nor negative, Somewhat positive, Extremely positive
9. What other aspects of the course have positively or negatively affected the feeling of community in the course?

Appendix B – Semi-structured interview questions

1. How would you describe the engagement in this type of delivery compared to previous deliveries of this course?
2. What seems to help engagement? Limit engagement?
3. How would you describe the feeling of community in the course?
4. What seems to help build community? Limit the building of community?
5. How do you see your role in fostering engagement in the course? Building community?

6. What role does the tutorials play in engagement/learning community in the course? (If not discussed already.)

Dual mode of delivery to improve equitable access to medication management course

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Abstract

Medication management is a crucial skill for registered nurses (RNs), requiring comprehensive pharmacology knowledge, clinical expertise, and practice to administer medications safely. Effective medication management involves understanding and applying pharmacology principles, utilizing evidence-based knowledge, and making sound clinical decisions to minimize medication errors and adverse drug effects. Despite being taught principles of medication management in undergraduate nursing programs, recent studies have highlighted deficiencies in pharmacology knowledge.

Flexible learning is an educational approach that has had increasing popularity as it addresses students' needs for flexibility and autonomy in shaping their learning process (Müller et al., 2023). The concept of flexible learning provides the learners with more flexibility and autonomy in shaping their learning process (and has proved to be an effective approach for accommodating an increasingly diverse student population (Alammary et al., 2014). Dual mode of course delivery was seen to be the best option for addressing the learning needs of Registered nurses in New Zealand to provide flexibility of access to the course and to provide equitable learning (Soesmanto & Bonner, 2019) environment. It was recommended that a parallel mode of delivery, allowing students to self-select their preferred mode, be considered. Thus, a dual mode of delivery was developed for the medication management course.

Concerns were raised about potential compromises in learning quality with the online format. However, using a simplified systems approach to compare the two modes revealed similar pass rates and student satisfaction.

Introduction

Despite being taught principles of medication management in undergraduate nursing programs, recent studies have highlighted deficiencies in pharmacology knowledge and a lack of confidence among new graduates (Goodwin et al., 2022; Honey & Lim, 2008; Lim & Honey, 2017).

Since 2020, the course for Registered nurses on medication management has been run successfully using traditional approaches which is mainly face-to-face, delivered oncampus. This traditional mode of delivery however was not appropriate for many Registered nurses (RNs) who resided outside of Auckland. Due to the successful delivery of the traditional mode, the proposed addition of an online delivery was considered in 2022 to provide access to postgraduate students residing outside of Auckland and for students who were unable to attend oncampus lectures.

Flexible learning is an educational approach that has had increasing popularity as it addresses students' needs for flexibility and autonomy in shaping their learning process (Müller et al., 2023). The concept of flexible learning provides the learners with more flexibility and autonomy in shaping their learning process and has proved to be an effective approach for accommodating an increasingly diverse student population (Alammary et al., 2014). Flexible learning can be delivered across many settings for example, using the blended learning approach, classroom setting or as a work-based study program. It is often used

interchangeably with other terms such as open learning, distance learning as well as eLearning (Kariippanon et al., 2019).

Dual mode of teaching refers to a dual delivery often referred to as hybrid flexible learning or blended synchronous learning. It is a teaching method where the same learning activities are experienced by students on-campus (in-person) and remotely (online). Dual mode of course delivery was seen to be the best option for addressing the learning needs of Registered nurses in New Zealand to provide flexibility of access to the course and to provide equitable learning environment (Soesmanto & Bonner, 2019)

Dual mode of course delivery differs to blended delivery in that the academic programme or course is offered face-to-face for residential students and a fully online course for distant students. While blended learning combines various learning approaches to promote learning, the dual mode of delivery contains two parallel programs, one cohort for residential students and one cohort for online students all completing the same course (Soesmanto & Bonner, 2019; Su, 2004).

The problem being addressed

Dual mode of delivery is not a common approach to delivering courses at the School of Nursing and therefore scepticism about the benefits of using online approach to replace a face-to-face delivery that have run successfully was strongly considered. There were two primary issues of concern, first, how does this multimodal approach of learning alter students' results and/or their learning outcome and secondly, how would students react to two different modes of delivery?

A limited number of studies were available that compared traditional and on-line learning for postgraduate nursing students and the early evaluation shows that the online mode of delivery was of equal quality and acceptability to the oncampus mode (Soesmanto & Bonner, 2019; Su, 2004).

Study design/Approach

After reviewing the literature, the on-line and on-campus mode are evaluated for quality using a systems approach to demonstrate that comparable learning occurred for students. The simplified systems approach applied to nursing education (Lobo, 1997) has been modified for organising the dimensions to facilitate comparison between the online and oncampus modes of the course. The systems approach is made up of three components, Input, processing and comes. This was used in this study as it pertains to the practice of nursing. In addition, no other evaluation framework exist to identify specific variables for comparison. There are three components of the Systems framework outline below:

INPUT for the course includes the students, lecturers, resources and institutional requirements, PROCESSING includes the curriculum elements of the course, its aims and learning objectives, content course design, teaching and learning strategies and assessments and finally, OUTCOMES for the course. From the students, lecturers and organisation.

Findings

Context of the course:

The Faculty of Medical and health Sciences within the University of Auckland offers a number of postgraduate course in distance or flexible learning format which are designed to suit

postgraduate students who are health professionals, working full-time and living outside Auckland. Postgraduate education in the School of Nursing was established in 1999 and has experienced rapid growth since its introduction.

Completing studies at the postgraduate level in the school is concerned with preparing nurses for advanced nursing practice and clinical nursing leadership. The medication management courses have a strong clinical focus and is one of the core courses in the School of Nursing Clinically based programme (Lim & Honey, 2003)

The students who enrol in this course are postgraduate students who are experienced Registered nurses. Postgraduate nursing students who enrolled in this course are mostly computer literate except for a small minority, who are mainly, mature students who have problems working with new technologies. This is particularly pertinent to PG nursing students due to the high number of mature nurses who are interested in improving their knowledge of medication management.

INPUT:

The modified systems approach starts with students demographics, resources and institution requirements. In 2023, a decision was made to allow students to self-select the mode of delivery. The majority of students who selected the oncampus mode were from the greater Auckland area , they were more mature students and were new to postgraduate studies. Students who selected the online mode tended to be younger, new graduates, overseas trained and were generally technologically literate.

In 2023, the number of students doubled for online delivery to a maximum of seventy two (online) versus twenty (oncampus) for 2024. This was a strong indication that students were more likely to choose the online mode of delivery instead of oncampus or face to face.

The coordinators of the course were familiar with the course design, content and assessments and were the coordinators of both modes of delivery. One lecturer is an experienced pharmacist prescriber while the course director is a registered nurse academic. One lecturer is an academic who teaches pharmacology. The course director has prior experience in online teaching and developed the online modules.

The course aim and learning outcomes are similar including the resources, for example required textbook, handouts and recommended articles for pre-readings. Both groups have similar learning content, the only difference being that the oncampus mode was timetabled as four full day modules that ran oncampus utilizing a traditional classroom approach with some discussions around small case studies. The on-line mode content material was offered using four module structure to match the oncampus mode and the content was paralleled with the oncampus. Students were not allowed to swap modes of delivery once they officially enrolled in their chosen mode of delivery.

Course and Course Delivery:

The primary objective of this course is to enhance the principles of medication management, improving and extending the knowledge and skills of registered nurses. Medication management ensures appropriate medication use, maximizing benefits while minimizing harm, including evaluating harmful drug interactions (Kuusisto et al., 2022) .

Nurs745- online delivery	**Nurs745 -oncampus delivery**

AIMS	AIMS
LEARNING OUTCOMES	LEARNING OUTCOMES
CONTENT PHARMACOLOGY ONLINE	CONTENT PHARMACOLOGY ONLINE
MEDICATION MANGEMENT CONTENT DELIVERED USING **CANVAS AND H59**	MEDICATION MANAGEMENT CONTENT **DELIVERED ONCAMPUS (FOUR DAYS)**
ASSESSMENTS Assessment 1 Online **Assessment 2 Zoom** Assessment 3 online Turnitin submission	ASSESSMENTS Assessment 1 Online **Assessment 2 oncampus** Assessment 3 online Turnitin submission
Required text McKenna, Lim, Mirkov: McKenna's Pharmacology for Nursing and Health Science 3rd ANZ edition 2022 9781925058178 (new edition)	**Required text** McKenna, Lim, Mirkov: McKenna's Pharmacology for Nursing and Health Science 3rd ANZ edition 2022 9781925058178 (new edition)

Table 1: Course and course delivery

The Medication Management course adopted a dual mode of delivery using Canvas as its Learning Management System (LMS). Both student cohorts had identical admission requirements and assessment criteria. A modified version of blended learning was also implemented, with both groups attending similar Zoom sessions for the Pharmacology section (see Table 1).

We hypothesize that by applying consistent teaching methods and strategies for both groups, there will be no significant differences in the learning experience and academic performance of both cohorts.

Course Duration, delivery and Content:

The dual mode of delivery has been used since 2023. The course runs each semester (Semester 1 and Semester 2) but not during summer semesters. Students have 36 weeks to complete the course materials, including three assessments. An increasing number of students have opted for the online delivery mode, with current enrolment for 2024 reflecting this trend.

PROCESSING:

The on-campus delivery content is presented in a lecture format with guest

speakers, and most lectures that are also recorded for students to review. Students have access to Canvas for the timetable, pre-reading materials, and assessment information as well as a discussion board. The lectures are more structured, and a didactic approach was used in the delivery. Open questions and discussions were promoted using case studies.

Online students access materials via the same Canvas pages, where learning modules and activities are located. Online modules contain the content and learning materials, with additional resources to support their learning. Zoom sessions and recorded lectures via Panopto and discussion boards were also available.

ONLINE CONTENT DESIGN:

The course content and learning outcomes are similar for both groups. Students first learn key medication management principles, followed by applications and case examples. Both groups complete key principles online, ensuring all students receive the essential principles of medication management before beginning application sessions. See Table 2 below:

ONLINE Modules	**Oncampus days**	**CONTENT**
MODULE 1 **ONLINE**	**ONLINE**	Pharmacology Principles a. Pharmacodynamics b. Pharmacokinetics
MODULE 2	Day 2	Clinical considerations a. Acute kidney injury (AKI and drug induced liver injury (DILI) b. Essential lab values related to drug therapy a. Drug interactions
MODULE 3	Day 3	Application to patient context a. Medication reconciliation and medication review b. Health literacy
MODULE 4	Day 4	Selected therapeutics HPN, diabetes, respiratory

Table 2: Structure of course content and delivery

Skills for studying medication management principles are organized into a modular structure. Each module is designed to develop and hone the study skills students need for therapeutic analysis of their patients' medication regimens. Modules include engaging activities, videos, blogs, articles, and Zoom tutorial sessions to meet diverse learning needs.

Assessment structure:

To promote consistency and fairness both cohorts complete the same assessment tasks. There are three assessment points: online quizzes, verbal presentation and a written analysis of a case. The design of the assessment structure aims to provide feedback of students learning. The aim of the assessments is to develop students' ability in communication and clinical reasoning skills (see Table 3 : Assessments for the course.

Assessments	**Learning**	**Weighting**	**Description**	

	Outcome		
Assessment 1 – Multi-choice questions and short answer questions	1-3	**TOTAL: 30%** (20 MCQ 10% 8 SAQs - Short Answered Questions 20%)	MCQ (20 questions) and SAQ (8) completed online. The test is open-book and time-limited (2 hours), but open for a week for flexibility
Assessment 2 – Verbal presentation	4-9	**TOTAL: 30%**	30 minutes of verbal presentation of a case study reviewing the medication management associated with the use of medications
Assessment 3 – case study	1- 9	**TOTAL: 40%** Case study worth 40%. The word limit for the case study is 3500 words.	Written case analysis of a case study exploring the pharmacotherapeutic issues associated with the medications including monitoring and evaluation. Issues of health literacy and compliance is also investigated.

Table 3: Course Assessments

OUTCOME:

Academic performance:

Assessing the quality of students learning experiences and course satisfaction is necessary to understand the comparable quality of the dual mode. This study addresses the lack of research of evaluation elements that can be applied to this task. Students' grades, pass rate and students evaluation are the main component of the outcomes of the course. The course evaluation below shows the breakdown of marks for each cohort. See Table 4.

Assessments 1 – Multichoice questions and Short Answer questions				
	Breakdown	**ONLINE**	**ONCAMPUS**	COMMENTS
Assessment 1 (30%)	25-30%	**10 (25%)**	**6 (35%)**	Students' achievements across different mark breakdown. No difference in breakdown
	20-24%	**15 (38.46%)**	**4 (24%)**	
	15-19%	**14 (35.8%)**	**6 (35%)**	
TOTAL		**N= 39**	**N=17**	

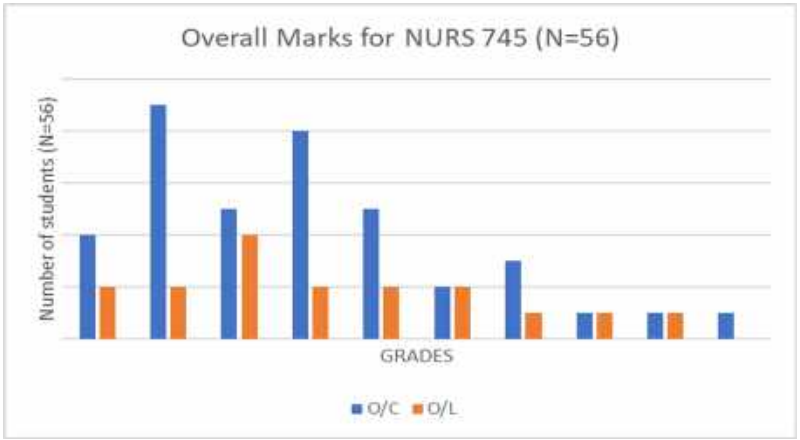
Assessments – Verbal presentation				
Assessment 2 (30%	**Breakdown**	**ONLINE**	**ONCAMPUS**	**COMMENTS**
	25-30%	12 (30.7%)	6 (35%)	Students' achievement shows that majority of ONLINE students scored above 24%.
	20-24%	24 (61.5%)	4 (24%)	
	15-19%	2 (5.1%)	7 (41.7%)	
	DNC	1 (2.5%		
TOTAL		**39**	**17**	

	Assessment 3 – Written assessment			
Assessment 3 : (40%)	**Breakdown**	**ONLINE**	**ONCAMPUS**	**COMMENTS**
	30-40%	29 (74%)	11 (6407%)	Students' achievement shows the majority for both ONLINE and ONCAMPUS did very well in this assignment
	29-20%	8 (20.5%)	5 (29.45)	
	19-10%	1 (2.5%)	0	
	DNC	1 (2.%%)	1 (5.88%)	
TOTAL		**39**	**17**	

Table 4: **NURSING 745 -Medication Management for Semester 2 – Breakdown of MARKS.**

A total of fifty-six (N=56) students enrolled in this course for semester 2 (ONLINE N=39; ONCAMPUS N=17. The final marks are shown below (see RESULTS summary) where most students achieved a mark above B+. See graph below showing both groups.

Figure 1: Overall marks



Evaluation:

Both courses were evaluated using the standardised university course questionnaire with a space to add comments regarding what students viewed as the most helpful and the improvements they would like to see.

Overall satisfaction of the course was 90% with only 15 respondents for the ONLINE course and 12 respondents for the ONCAMPUS course. Workshops, face to face classes and exemplars were approaches identified as most beneficial for learning. Most students found the pharmacology section of the course beneficial for their learning and the lectures were noted as positive as well.

The online group found the resources were easy to find on Canvas, but the layout needed to improve. Both groups found the course structure to be clear and both were positive of the learning environment. See Table 5 below:

Criteria	ONLINE N = 15	ONCAMPUS N=12
Overall, I was satisfied with the quality of this course.	100%	91.6
It was easy to find the information and resources I needed on the Canvas course website	100%	83.3%
The course was structured in a clear and logical manner.	100%	83,3%
The learning environment provided me with opportunities to communicate and/or collaborate with my peers.	87.5%	95%
The learning environment allowed effective communication between teaching staff and students.	85.7%	95%
I was clearly informed how my learning would be assessed	100%	95%
Assessments supported the aims of this course.	100%	91.6%
I received helpful feedback on my learning progress.	100%	83.3%
This course encouraged me to participate in ways that helped me to learn	85.7	83.3%
The volume of work in this course was fair and reasonable	80%	91.6%
The course developed my sense of intellectual independence and confidence.	80%	83.3%

Table 5: Course evaluation Online and Oncampus.

Overall, most students were satisfied with the course (100%). They found it easy to find the information and resources (ONLINE) (100%), and they felt they were clearly informed of how their learning would be assessed (100%). Overall, they agreed that the assessments supported the aims of the course (100%) and they felt they had stayed motivated and engaged in their learning.

Discussion and conclusion

This study presents the case that an established on-campus course could be developed and offered online with no compromise on the quality of learning. All students positively evaluated the course and no differences in student outcomes were found. Students opted for the medium that best suited their individual circumstances, although most of the online students live away from the main campus. On-line learning provided an opportunity for students to access and complete a core paper to improve clinical practice. The key findings of this study were that students were not disadvantaged, and they achieved the learning outcomes for the course. A benefit of the on-line mode was student development as independent learners, which will stand them in good stead for lifelong learning as postgraduate nurses.

References

Enhancing professional learning for culturally responsive dispositions and practices: Insights from blended professional learning

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Abstract

Teacher professional learning (PLD) programmes that are clearly designed to align with existing evidence of effective professional development offer many benefits to enhancing teacher practice and student learning. Blended modes of PLD are gaining prominence and offer advantages in the flexibility of choice and time to empower educators to develop new knowledge and skills, within their own context beyond time and distance constraints of face-to-face modes in traditional teacher PLD approaches. Although teacher PLD has been well-researched, gaps remain in understanding the role of blended PLD in Aotearoa New Zealand.

This paper reports the findings from a systematic literature review to identify trends and characteristics of effective blended PLD programmes supportive of teachers developing culturally responsive dispositions and practices within communities of practice. The review aimed to inform and strengthen directions in a year-long, blended PLD programme offered nationally to school leaders and teachers in Aotearoa New Zealand to promote experiences that are educationally transformative for Māori learners.

Eighteen relevant studies from peer-reviewed journals within the recent five years were identified from the review and analysed using thematic analysis. The findings identified a range of teacher learning strategies including considerations for maximising the affordances of digital technologies, PLD facilitator role and school leadership support. The review further revealed a range of theories for understanding blended teacher professional learning drawing from traditional face-to-face models and those tailored for the blended nature of professional learning contexts. These findings have implications for establishing the appropriate conditions and environments for enhancing blended teacher PLD and can inform future policy, practice and research.

Introduction

Teacher professional learning and development (PLD) programmes must align with existing evidence of effectiveness if it is to enhance teachers' praxis and subsequently, students' learning. High quality PLD empowers teachers to enact shifts in their practice and 'unlearn' beliefs, assumptions, values about teaching, learning, and schooling (Kennedy, 2016). Scholars examining effective PLD programmes have highlighted the need to consider the characteristics of participating teachers in the programme, their schools, and the social contexts of their work (Timperley et al., 2007). Yet others have scoped and identified the essential features of high quality PLD as involving high quality content, active learning, coherence of learning activities, duration, collective participation, coaching and expert support, feedback and reflection, and sustained duration for learning (Darling-Hammond et al., 2017; Desimone, 2009). Yet others argue for the need to go beyond examining design features of PLD to develop theories of action on the issues PLD is intended to solve and the facilitation of teacher learning itself (Kennedy, 2016). Despite a growing corpus of studies into teacher professional learning and the nature of effective programmes as processes for how

teacher change can take place, cumulative evidence also points to the failure of such programmes. In particular, PLD models that are offered as one-off, piecemeal, one-size-fits-all sessions that fail to account for teacher realities and contexts or are disconnected from their classroom practice (Kennedy, 1999).

The problem being addressed

Blended teacher PLD programmes are gaining prominence, partly fuelled by the COVID-19 pandemic, and can afford a more flexible and effective form of professional learning leveraging on the strengths of both online and face-to-face (F2F) learning environments (Dede et al., 2016; Graham, 2021; Lockee, 2021). We consider blended approaches in teacher PLD as those that combine F2F learning activities with aspects of online learning activities to support formal in-service teacher learning (Graham, 2021). Such approaches can involve synchronous and/or asynchronous learning opportunities that can be work embedded to provide opportunities for teachers who may be reserved in F2F settings to articulate their ideas.

Although much progress has been made in supporting teacher PLD in blended or online forms of learning in practice, very limited studies exist to scope aspects of effective blended PLD programmes, particularly those that aim to transform teachers' culturally responsive dispositions and practices in the Aotearoa New Zealand (Aotearoa henceforth) context. Our study aimed to identify current trends and characteristics of effective blended PLD programmes to inform and strengthen a current year-long blended PLD programme offered nationally to leaders and teachers in Aotearoa. The programme aims to develop teachers' culturally responsive pedagogies (CRP) and dispositions by engaging in pedagogies and experiences that are educationally transformative for teachers of Māori learners within a professional community of practice.

Our context

Culturally responsive pedagogies (CRP) are grounded in social justice and equity to promote learner academic success, cultural competence and a critical consciousness that defines a teacher’s disposition when working with minority and indigenous learners (Ladson-Billings, 1995). Despite growing interest in CRP theorisation and practice, it is understood and defined differently across Aotearoa, and indeed the world. In Aotearoa, the interpretation of CRP is significantly influenced by the nation's historical narrative, characterised by its colonial past and based on Te Tiriti O Waitangi as the country’s founding document.

The Poutama Pounamu Blended Learning (PPBL) programme consists of a bicultural group of educational and professional development providers established to understand, clarify, and address the imperatives and challenges of implementing cultural relations for responsive pedagogy (CRRP) in school reform in Aotearoa. The programme rooted in the twin theoretical frameworks of critical and kaupapa Māori theories has a commitment to addressing historical inequities, more equitable learning outcomes for Māori learners and promote CRRP (Berryman et al., 2024). Programme facilitators model cultural relationships as a core context for responsive pedagogy to engage participants effectively. The programme brings together, school leaders and teachers from diverse backgrounds in F2F cohort meetings and online sessions as a community of practice learning together over a year. Through the lens of an indigenous world view, participants explore the concepts of conscientization, resistance and

transformative praxis. They reflect on how these apply to their own settings and their agency to bring the changes towards a more socially just society.

Study design/Approach

A systematic literature review was conducted based on our contextual focus on blended teacher PLD. The research question guiding our review was:

> What are the characteristics of effective blended PLD programmes with a communities of practice orientation, and how do they support teachers developing culturally responsive pedagogies?

The review drew from English peer-reviewed education journals published during 2017–2022. We were guided by standard systematic literature review protocols and processes: Identification of search terms; screening for relevant articles; eligibility for selection, and, inclusion (Arksey & O'Malley, 2005). The details of the review methodology have been reported elsewhere (Khoo & Egan, 2024; Berryman et al., 2023).

The search terms used focused on the mode of PLD delivery (e.g., blended, mixed mode, hybrid, dual delivery), the context (e.g., professional learning, professional learning communities, professional communities of practice) and content (e.g., culturally responsive pedagogy, bicultural). We trialled combinations of terms into search strings using Boolean operators (AND, OR, NOT) to refine and narrow the search results. The initial search identified 4366 potential articles which were then screened for duplicates and the remaining articles (285 articles) thereafter screened according to the relevancy of titles and abstracts for addressing our research question. We developed a set of inclusion and exclusion criteria to guide our final selection of articles for analysis. These criteria focused on:

- our population of interest (e.g., in-service teachers)
- study interventions reported (e.g., formal PLD programmes, exploratory studies, longitudinal studies)
- study designs (e.g., qualitative, quantitative, reviews)
- outcomes (e.g., effective, high quality, blended PLD for professional learning, professional learning to enhance CRP).

Altogether a total of 133 potential articles were selected. These were subjected to a close reading. A final corpus of 18 articles were identified to be relevant to addressing the research question (see Appendix 1). Thematic analysis was conducted to code, organise and summarise the key ideas and conclusions within each article and across the 18 articles (Braun & Clarke, 2006).

Findings

Nine themes emerged on the nature of effective blended programmes representing a range of strategies and conditions necessary for supporting teacher PLD. These were active engagement (18 studies), collaboration (17 studies), developing trusting relationships and

collegiality (16 studies), promoting sustained learning (16 studies), relevance (14 studies) and flexibility (11 studies) in responding to teachers' professional learning needs. Considerations for maximising the affordances of digital technologies (15 studies), school leadership support (12 studies), and the roles of PLD facilitators (9 studies) were also needed (see Table 1).

Table 1. Themes on effective blended PLD programmes from the final studies

Characteristics	Studies	Brief description	Example of studies
Active engagement	18	Active learning strategies, inquiry into own practice, reflective practice/ identity change.	Alzayed & Alabdulkareem (2021), Anderson et al. (2018)
Collaboration/ community	17	Social aspects - working as communities of practice/communities of inquiry/ professional learning communities. Within/across disciplines or schools.	Brown et al. (2021), Philipsen et al. (2019)
Relationships/ Collegiality	16	Trusting relationships, emotional support, values-based, social cohesion. Time, thoughtful use of supportive technologies.	Brown et al. (2021), Katz et al. (2019)
Sustained learning	16	Ongoing and prolonged teacher learning over time across both F2F and online modes. Well-structured and purposeful. Sustainability through growing teachers as leaders within and beyond the programme.	Dille & Røkene (2021), Kenny et al. (2020)
Maximising affordances of blended and F2F modes	15	PLD activities that maximise the affordance of online and F2F modes. Role of evolving and new technologies (e.g., immersive approaches) to enrich collaboration and learning.	Biasutti et al. (2019), Charteris et al. (2021)
Relevance	14	Clear goals and relevance of PLD. Use of authentic tasks, application of theory to practice, enabling prior knowledge and agency.	Chien (2022), Quinn et al. (2022)

School leader participation and school culture	12	Leadership support, supportive school culture to promote teacher learning and practice change. Coherence between individual teacher PLD goals, the culture and priorities of schools, and wider socio-political policy context/ broader educational agenda to reform teaching.	Owen (2017), Surrette & Johnson (2015)
Flexibility	11	Flexibility in accommodating teacher needs, skills, interests, and goals for learning. Flexibility in terms of choice of content, activities, pedagogy, digital tools including timing of activities. Balance between teacher's workload and time management.	Philipsen et al. (2019), Quinn et al. (2019)
Facilitator role and facilitation process	9	PLD facilitator role is vital as change agents to promote future teacher leaders. Particular qualities and training needed.	Leibel et al. (2021), Peden et al. (2021)

Conceptualisations of blended PLD programmes

The included studies were underpinned by a range of conceptual frameworks;

those that were newly developed frameworks to accommodate the blended nature of PLD as well as traditional frameworks, to account for teacher learning and change (see Table 2).

Seven studies reported on the developments of new conceptual frameworks to provide explanations for how blended PLD can be enhanced. These authors typically adopt a holistic or systems perspectives to consider the wider factors that impinge on teacher learning PLD. Noteworthy of mention is the Inclusive Framework for Professional Development conceptualised in Aotearoa (Owen, 2017) highlighting a dynamic and interrelated dimensions of the Personal, Professional and Political spheres within which teacher PLD is situated. These dimensions influence notions of equity, especially in relation to the improvement of outcomes for both teacher and student learning.

Five studies emphasised collaboration within professional learning communities and changing teacher professional identities as a result of participation in these communities. In line with the emphasis on social cohesion and collaboration, two studies drew from social constructivist theories (e.g., Vygotsky's emphasis on dialogue, scaffolding and the zone of proximal development) in supporting teacher PLD. Two other studies drew from Desimone's (2009) core conceptual framework for studying the effects of PLD including the critical features of effective PLD: content, active learning, coherence, duration, and collective participation. While a further two studies focused on teacher change through the lenses of professional identities and boundary crossing citing the work of Akkerman and Bakker (2011) and Geijse and Meijers (2005).

Specific to teacher PLD of culturally responsive dispositions and CRP only one study was relevant (Brown et. al., 2021) adopting Gay's (2002) conception of culturally responsive teaching as well as Ladson-Billings (1995) ideas on CRP. Working in the context of addressing student learning and equity during the COVID-19 pandemic, the authors proposed moving past traditional PLD models towards virtual PLD programmes emphasising ongoing teacher learning, learning communities, individual coaching, classroom observations, and self-reflections. These were important strategies to develop teachers' teaching disposition that was aligned to culturally responsive teaching to achieve optimal student engagement and meaningful student outcomes.

Table 2. Conceptual frameworks reported in the final studies.

Frameworks	**Studies**	**Example of studies**
New frameworks developed for online/blended context of PLD	7	Charteris et al. (2021), Owen (2017)
Community of Inquiry (COI), Community of practice (COP), Learning communities, Professional learning communities (PLC) and transformation of professional identities	5	Chien (2022), Widodo & Allamnakhrah (2020)
Social constructivism	2	Biasutti et al. (2019), Dille & Røkenes (2021)
Critical features of effective PLD (Desimone, 2009)	2	Philipsen et al. (2019), Surrette & Johnson (2015)
Teacher change through boundary crossing and changing learning identities	2	Anderson et al. (2018), Kenny et al. (2020)
Culturally responsive teaching (Gay, 2002) & CRP (Ladson-Billings, 1995)	1	Brown et al. (2021)

Discussion and conclusion

Our review drew insights from evidence in teacher PLD, blended learning and CRP. The nine themes recognise the importance of a range of professional learning strategies (active engagement and reflection, collaborative and collective participation within a collegial community, developing social and trusting relationships, and sustained learning over time). Considerations for conditions such as the relevancy of PLD goals, the blended nature of PLD to maximise the affordances of online and F2F modes of learning, inviting school leadership support, promoting flexibility to meet individual teacher learning needs and emphasising the roles of PLD facilitators as change agents are added features of effective programmes. These themes provide for a holistic and rich professional learning experience for teachers. While they are reported as distinct themes, there are mutually related to influence the offering of a programme and ultimately teacher participation in learning.

Increasingly, the development of newer conceptual frameworks to offer explanatory power in acknowledging the distinctive affordances of online and blended contexts of PLD indicates the

growing interest and ongoing theorisation work as scholars continue to grapple with the 'what', 'how' and 'why' of effective blended programmes in the current post pandemic era. Blended PLD at their core are concerned with teacher professional learning. Although the adoption of online technologies ought not to distract from this focus, the affordances of these technologies do offer new and different ways that can extend and transform teacher learning through connections and learning in authentic ways (Dede et al., 2016). For example, cultural blogs, podcasts, mobile storytelling can support teacher cultural curiosity, empathy, reflection, and appreciation of the complexities of cultural interactions (Bonk & Khoo, 2014).

Specific to supporting teacher cultural praxis and dispositional change, our findings highlight PLD features sympathetic towards this reconceptualisation such as establishing trusting relationships, engaging in active and collaborative participation with community peers, receiving support from school leadership and sustained learning over time to facilitate meaningful reflective engagement with content and practices. For instance, sustaining learning to allocate time for the emotional work required in teacher learning for fostering CRRP is invaluable (Berryman, et al., 2015) as teachers scrutinise their beliefs of racism, biases, and views towards working with minority learners. Such experiences can be confronting, and time is needed to foster the necessary dispositions and change in practice. This repositions teachers towards a pedagogical cultural identity related to 'who' and 'how' they are enacting cultural responsiveness centered on affirming and prioritising marginalised students (Burgess, 2019).

As blended PLD programmes increasingly become the norm to alternative forms of F2F PLD in the post-pandemic COVID-19 era, it is imperative that educational leaders, policy makers, ministry officials and PLD providers to be informed by current evidence-based developments and iniatitives to maximise teacher learning and ultimately minority and all students' learning outcomes.

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Non-Academic Support for Online Course Engagement: Student Perspectives of Automated Interventions with Integrated Human Support

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Abstract

Student engagement is a multidimensional concept that comprises a range of experiences and behaviours and is closely connected with students' academic success. Student support covers a range of academic and non-academic services that institutions provide to complement the core teaching and learning resources. Data technologies, such as learning analytics, are useful tools to support online student engagement, an ongoing challenge in open distance learning (ODL) models.

Open Polytechnic (OP), a national provider of ODL in New Zealand, implemented a three-tiered, non-academic student support model in 2020 as a complementary student-support strategy. This model is based in theory, supported by technology, and aligned to, but independent of, the instructional context of the learning management system. The system sends automated interventions to students at critical points throughout their course journeys with an option to contact a mentor for non-academic support. This paper explored student perceptions of how this form of interventional support assisted student engagement in their course journeys at the OP. A purposefully designed qualitative survey was sent to all students (*n* = 736) in three blocks of two entry-level courses and completed by 146.

A deductive thematic analysis revealed: firstly, the need for monitoring student engagement in online courses; and secondly, that the combination of automated interventions and optional human contact contributed to behavioural and emotional aspects of engagement and was useful in serving the respondents' various non-academic needs.

Keywords: Student engagement; ODFL; online learning; non-academic support; mentors; institutional support; automated interventions

Introduction

Open distance learning (ODL) models can empower a diverse range of students to fit their studies around their individual needs through learner-centric approaches and flexible access to online courses (Seelig et al., 2019). A primary advantage of ODL is students' control over their learning pace (Berg, 2020); however, to take advantage of this flexibility, students must self-regulate and engage in more self-directed methods of learning (Davison et al., 2022). For online students, following a regular study schedule remains a persistent challenge (Farrell & Brunton, 2020; Fetzner, 2013,) and learner autonomy may factor into dropout rates of online courses (Sorgenfrei & Smolnik, 2016). Such findings challenge the assumptions underlying the self-directed 'independent learner' concept in ODL (Shikulo & Lekhetho, 2020) and

support Borup et al.'s (2020) view that greater flexibility in self-pacing also requires greater student support.

Student support can be understood and practised in several ways (Martin & Borup, 2022). Borup et al. (2020) suggest that support for online student engagement involves multiple actors distributed across communities inside and outside of the institution (see also Ng, 2019). Within the institution, Simpson's (2015) distance student support model suggests that support can take two forms: academic and non-academic. Non-academic support consists of "services, interventions, and informal activities" that help students deal with the implicit demands of higher education (Karp, 2011, p.3). While much research exists on academic support within the instructional context (see Torristeele, 2022), there is a limited understanding of how students experience institutional support outside of the instructional context (Lemoine et al., 2019; Sánchez-Elvira Paniagua & Ormond, 2018).

Non-academic support can play a vital role in enhancing student engagement. The concept of engagement, can be understood as "a student's emotional, behavioural and cognitive connection to their study" (Kahu et al., 2014, p. 2). Engagement is widely known to influence student satisfaction and success (Borup et al., 2020) and is a key determinant of many interventional support efforts in ODL research and practice (see Fredricks et al., 2019; Sinatra et al., 2015). Despite the large literature on student engagement (e.g., Andersen & West, 2021), few support models are adequately adapted for creating an engaging learning experience for online students (Kember et al., 2023).

Data technologies such as learning analytics allow institutions to optimise learning environments for their learners (Alfredo et al., 2024; Larrabee Sønderlund et al., 2019; Prinsloo, 2023) by drawing insights from students' online learning behaviour (Gašević et al., 2015). This study evaluates a form of interventional support that was essentially designed for online student engagement; specifically, we assess student perceptions of a combined technology-and-human approach in which automated tracking of low engagement triggered email reminders with invitations to contact non-academic mentoring support.

The problem being addressed

Open Polytechnic (OP), a national provider of ODL in New Zealand, offers various fully online courses that serve a diverse range of student needs. Of the over 35,000 students, many are adults aged 25 years or over (86%), study part-time (88%), and are in employment (77%; Open Polytechnic Annual Report, 2021). To improve student engagement and success, OP implemented Learner Engagement and Success Services (LESS), a three-tiered technology support model that integrates optional mentor contact (Brice et al., 2023). The three tiers of support address self-help, 24/7 support resources and services (Tier-1); targeted "just-in-time" personal intervention (Tier-2); and long term, individual mentoring services (Tier-3). The current study is situated within Tier 2 of the LESS framework.

Provided outside of iQualify, the OP's in-house Learning Management System (LMS), Tier-2 support is aligned with the core faculty's teaching and learning support and other standard support services of the institution (e.g., technical and library support). Students are contacted automatically based on Success Criteria (SC) that correspond to known points of attrition along the learner journey. These SCs are evolving; at the time of this research, there were four SCs at Tier-2:

- SC1: Student is new to the iQualify learning platform (has not studied by distance before). Runs from 2 weeks before and after start date
- SC2: Student has no/low engagement from days 15 -21

- SC3: Student has no/low engagement from days 22 -27
- SC5: Assessment alerts (assessment due date/missed due date/re-submission follow-up)

The contact involves up to three attempts to reach out and comprises an information email, with an invitation to book a phone-call with a mentor via a calendar link, and an e-text alert to check their email. The mentors (*n* = 16) are designated staff that provide non-academic, need-based services (e.g., giving advice, advocating for, or referrals to other staff) to students across the OP portfolio of programs. We previously assessed student perspectives of SC1 onboarding interventions (Jonnavithula & Bai, 2023). The present paper assesses student perspectives of the remaining interventions (SCs 2 and 3 course progress; and SC5 assessment alerts).

Study design/Approach

The study recruited students from three blocks in two different entry-level courses (Real Estate and Business Administration) that ran from May-July 2022. Students were informed about the online survey by course lecturers on the course forums and then received the link to the survey via email. The survey was open for six weeks (Sep-Oct 2022). Participation was voluntary. After reading an information sheet, participants indicated consent using a checkbox. Of the 736 students enrolled in the two courses, 146 completed the survey and could register for a draw to receive one of ten $50 supermarket gift cards. This research was approved by the OP's Research and Ethics committee.

The survey contained a general demographics section and pairs of closed and open-ended questions inviting students to describe their experience of each intervention at Tier-2. For example, one pair of questions was:

> 'Did you receive a course progress reminder email from the Open Polytechnic inviting you to book a call with a student mentor? Please select: Yes | No | Don't remember | Does not apply.
>
> 'If yes, what are your thoughts on receiving the email to help you engage with your online course? Describe any aspects you found helpful or unhelpful.'

The close-ended responses provided basic descriptive data for each intervention and open-ended responses were analysed by both authors using Braun and Clarke's (2006) six-step thematic framework. Important data segments were identified in student responses and grouped into sub-themes and themes using a deductive approach, informed by the ODL student support and engagement literature (e.g., Borup et al., 2020; Simpson, 2015; Tuiloma et al., 2022). Responses to the open-ended questions were numbered and labelled with the course initials (#R for Real Estate; #B for Business Administration).

Findings

The demographics of the respondents generally reflected the overall population of OP students (Open Polytechnic Annual Report, 2021) and ODL student characteristics reported in the literature (e.g., Delnoij et al., 2020). Most of the respondents were 25 or older (80%), identified as female (77%), worked (22.5% part-time, 40% full-time), and studied part-time (85%).

Table 1: *Total responses and participants who reported receiving automated reminder emails and e-texts in each course*

Course	Total responses	Course progress		Missed assignment	
		Email	E-text	Email	E-text
Real Estate	60	9	10	16	9
Business Administration	86	32	9	13	7
Total	146	41	19	29	16

Table 1 shows that only 41 students (28% of respondents) reported receiving a course-progress reminder email and 29 (20%) reported receiving a missed assessment date or re-submission email. These low numbers suggest that automated interventions were not required for most students, who maintained engagement and submitted assignments on time. However, the responses of students who did receive reminders reflected the challenges adult learners generally face; for example: "…when I'd gotten side tracked with life and forgotten due dates" (2B).

Inspired by Borup et al.'s (2020) and Tuiloma et al.'s (2022) work on academic engagement, and Simpson's (2015) categorisation of organisational and affective non-academic support, we proceeded with a deductive thematic analysis and coded responses that reflected the impact of mentoring support on learners' behavioural and emotional engagement. As the mentoring service was designed to provide non-academic support outside of the instructional context, we omitted cognitive engagement from our analysis. Table 2 shows the codes that reflect how students perceived the automated interventions and mentor contract in terms of supporting their behavioural and emotional engagement.

Table 2: *Codes for automated* interventions and mentoring support on behavioural and emotional engagement

	Automated interventions	**Mentor support**
Behavioural engagement	Plan; organise; advise; track; continue	Guide; direct; attend & advise (non-academic)
Emotional engagement	Motivation; connection; satisfaction; presence	Encourage; reassure; attentive; caring; responsive; approachable

Automated interventions

The perceived value of the timely reminders was evident in the responses. In particular, respondents highlighted how the automated emails helped them to monitor their course progress: “Its [sic] great to get reminders about where the course timeline is now and how far along I should be” (82B). Multiple respondents also highlighted how the assessment alerts served as a “helpful reminder for [a] busy & working individual” (72B), particularly when learners had commitments outside the course; for example: “It [was] very helpful especially when I'm busy and I forgot about the course.” (16B). Thus, the automated emails helped learners to monitor their course progress while managing external demands.

The automated emails also provided information that assisted students in planning their course work (e.g., “It was good notification and advise me with next steps to catch up with my studies.”, 54R) and responding to the requirements of the course (e.g., “I found this helpful as I was able to get an extention [sic]”, 3B). For some, this information also had a motivating effect; as one respondent noted: “it is good to know the progress of my study. I know I need to catch up if I was far behind” (52R); another noted directly: “It was helpful and gives motivation to keep going on” (9R).” Therefore, although responses generally reflected the impact of automated emails on behavioural engagement, for some respondents the automated emails also fostered emotional engagement and a sense of connection with the course; as one respondent wrote “These emails are great as you never feel like your [sic] alone” (44B).

Overall, the responses to the email reminders were generally positive, with many respondent evaluations ranging between “good” (7B,13B, 21B, 76B) and “really good” (49B) through to “excellent” (2B). This positive evaluation was not unanimous, with one response drawing attention to the lack of interactivity: *“*I did not find helpful that I couldn't reply to the emails or talk to someone who can actually be able to allow me to extend my time to resubmit” (43B).

Concerning the e-text reminders, students generally saw them “as a reminder” (66B) or “as a nudge.” (33R). The texts, by having “all the info of contact numbers” (59B), were also perceived as invitations to connect, with one participant noting: “personalized message makes it more of a call to action” (15R).

Mentor support

Only 43 respondents (29%) felt the need to contact a mentor for support. Those who did generally had positive experiences and reported that the mentors responded “on time” (19R), were “prompt and helpful” (71B), “quick and attentive” (55R), “reassuring” (80B), and provided “very helpful guidance” (33R).

Mentor contact served a variety of functions for different students, including providing information (e.g., on “where to find results sheet [and] applying for extensions”, 2B), troubleshooting (e.g., “When I was confused at first, they were very helpful and made sure I understood”, 10R), and advising and orienting (e.g., “Very helpful, put me through to where I needed to go for assistance”, 27B). These responses demonstrate diverse ways in which talking with a mentor can support students’ behavioural engagement.

Respondents also highlighted emotional elements in their interactions with mentors. For example, one respondent reflected how talking with a mentor helped to alleviate their anxiety: “I was on my second resubmission, and I was anxious about failing again. I was struggling so I asked for guidance […] Assistance well deserved and explained” (52B). Other respondents felt reassured simply by the presence of mentors; for example: “It is helpful & does give me ease to know there is someone anle [sic] to help” (26R), and “Reassuring to know help is

available when required” (80B). These responses highlight the important role of human contact in a technology-mediated ODL environment.

Although many students did not need to contact a mentor, 59% of respondents indicated they would use the mentor support if available in their future course. As one respondent wrote: “So far I haven't needed to reach out to a mentor but it's certainly important to have that student support” (56B). In general, those that did not contact a mentor reported not needing the support (e.g., “I only scanned the email briefly and didn't really read it as I felt I was already getting along fine with the coursework on my own”, 85B), or felt sufficiently supported within the instructional context (e.g., “The tutors were following up with me till I complete my assessment successfully”, 5R).

Discussion and conclusion

This study examined student perceptions of a non-academic mentoring support system situated within Tier 2 of the OP’s LESS model. The data revealed that students experience engagement obstacles commonly identified in previous studies (e.g., Farrell & Brunton, 2020; Fetzner, 2013) and reflected the need for non-academic support in ODL contexts with primarily adult, part-time students (Delnoij et al., 2020). Although ODL students share similar demographics (Dzakiria, 2005), they differ in their support needs and experiences (Pratt, 2020). The current approach of combining automated interventions and optional mentor contact can help to serve a diverse range of student needs; while the automated emails allow just-in-time contact with students at scale, human support can provide tailored support for individual student needs. The present data suggest that this approach addresses both behavioural and emotional aspects of engagement.

Students who accessed mentor support reported generally positive experiences. In addition to helping students navigate the online learning environment and connect with other support sources, interactions with the mentors also contributed to emotional aspects of engagement through encouragement and alleviating feelings of anxiety. Several respondents highlighted the reassurance provided by simply having human-support available, which could reflect a sense of “transactional presence” (Shin, 2003) and a reduction in transactional distance (Moore, 2012) between the learner and the institution (see also Jonnavithula & Bai, 2023). Overall, these data align with Tait’s (2003) assertion that support “impacts not only in terms of teaching but also affectively, that is to say reinforcing the student sense of confidence, self-esteem and progress” (p. 4).

While most respondents did not feel the need to contact a mentor in their current course, several recognised the service as “being important for those who need assistance” (74B) and 59% indicated that they would use the mentoring service if it were available in future course. The responses of students who not use the mentoring support service generally align with Scheepers and Van den Berg’s (2022) findings that students who felt competent to remain on track academically did not need additional support mechanisms. Thus, providing automated reminders with invitations to contact mentors gave students agency (Bandura, 1982, 2018) to choose whether, and when, to access the needs-based mentor support.

The data presented here should be viewed in the context of OP’s holistic support system. While the survey focused on mentoring support, it is possible that the comments were also coloured by students' experiences with other support services. Although we did not find any notable differences in students’ use and perceptions of the support services between the two courses, the data could be affected by sampling bias as participation was voluntary.

ODL providers face the challenge of implementing support systems that meet unique student needs; however, the potential avenues to provide support are broader than previously available (Kember, 2023). As ODL becomes increasingly widespread, particularly with adult and part-time students (Stone & O'Shea, 2019), our findings demonstrate how a combined technology-and-human approach can create an environment that supports a variety of non-academic student needs.

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Paper Title: Online, not remote: the Peer Review of Digital Teaching in a Post-Pandemic world

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Abstract

The global COVID19 pandemic has been a challenging time for learners. All levels of education were disrupted, as were the learning trajectories of millions of students. Teaching staff, many of whom were outstanding “chalk and talk” practitioners in a face-to-face environment, found themselves dropped into delivering their teaching remotely, with little advanced preparation or professional development. The pandemic also exposed inequities in terms of access to digital tools (including access to reliable broadband internet) and competence in their use, for students and staff.

However, the pandemic also achieved something many of us working in digital (distance, online and flexible) learning have known for many years: digital can be an effective mode of delivery for teaching and learning. Digital learning facilitates access for learners who are geographically—or economically—disadvantaged, in terms of access. Digital learning can also leverage a mix of asynchronous and synchronous learning activities to foment deep learning. However, the practice of digital teaching does not manifest in ways obviously comparable to practice in a face-to-face context. Neither then does the peer review of teaching

Peer review of teaching has two broad purposes. First, peer review is a collegial mechanism through which one teacher provides advice to a colleague, with an aim to improve practice. These formative peer reviews of teaching are local in character and work within the requirements agreed upon between the stakeholders. Summative peer review of teaching is a teaching quality mechanism, which is also conducted by a colleague. However, summative reviews generate formal reports where the candidate teacher’s performance is evaluated, usually qualitatively.

In our post-pandemic world, peer review of teaching in digital (distance, online and flexible) learning must be recalibrated. Reflecting on my own experiences as both a candidate and reviewer, in this paper I consider how peer review of teaching, in both formative and summative reviews, would work well for digital learning, taking into account the sorts of learning design features well suited to digital learning. Peer review of teaching’s ascendancy as a means for improving practice and assessing performance necessitates developing processes and protocols that embrace other modalities than F2F. My analysis seeks to disrupts presumptions about observation, interaction, teaching and assessment, which are experienced substantively differently in online than in face-to-face classes. A protocol for reviewing peers’ digital teaching is also proposed.

Introduction

The global COVID19 pandemic has been a challenging time for all, but in particular ways for learners. All levels of education were disrupted by the pandemic, and, as a result, the learning trajectories of millions of students. University educators, many of whom were outstanding

“chalk and talk” practitioners in a face-to-face environment, found themselves dropped into delivering their teaching remotely and online with little or no academic development support to navigate these challenges. For those of us well versed in digital teaching practices, it was nonetheless challenging, due to time and resource constraints.

The pandemic also exposed inequities in terms of access to digital tools—including video conferencing capable computers and tablets, as well as access to reliable broadband internet—and competence in the use of these in a teaching and learning context. As is often the case in education, these inequities disproportionately impacted on the learning of those without such resources.

However, the pandemic also achieved something many of us working in digital (including distance, online, blended, and flexible) learning have known for many years: online delivery can be an effective mode of delivery with its own unique affordances. Online learning facilitates access for learners who are geographically—and also often economically—disadvantaged, in terms of local face-to-face university access. Online learning can also purposively leverage a mix of asynchronous and synchronous learning activities to foment deep learning (Egan, 2020).

However, the practice of online teaching is not manifest in ways obviously comparable to practice in a FACE-TO-FACE context. As a result, the mechanisms used in a FACE-TO-FACE context to either ascertain teaching quality, or harness ways to collegially improve practice, need to be scrutinised, reflected upon, and revised. This is particularly true for peer review of teaching.

In this paper I examine how the practice of peer review of teaching can best be recalibrated for online learning. I consider how the online peer review of teaching, in both formative and summative reviews, can work best, and offer a an online peer review of teaching protocol.

Why peer review

Peer review of teaching as a practice dates back decades (Hubball and Clarke, 2011). In a university context, peer review of teaching is somewhat analogous to peer review within the research enterprise: peer review of teaching aims to leverage peer esteem and collegiality to ascertain quality and to improve quality. Van Note Chism defines peer review of teaching as “informed colleague judgement about faculty teaching for either fostering improvement or making personnel decisions” (Van Note Chism, 2007, p. 3). An integral element of peer review of teaching is reflective practice (Schön, 1987)

Peer review of teaching is a collegial practice where one educator provides purposive feedback to a colleague. Formative peer reviews of teaching are local in character and work within the requirements agreed upon between the reviewer and reviewed, with an aim to improve practice. Formative peer reviews are usually confidential, though some repurpose formative peer review of teaching reports within their teaching portfolios as a part of processes such as job seeking, academic promotion, or reward and recognition.

Summative peer review of teaching makes a value judgement about the quality of one’s teaching practice. In summative reviews, one colleague formally reports on the standard of teaching practice of another. Some summative reviews are also negotiated by the person being reviewed, but it is also common for academic leaders to commission reviews as part of processes like academic promotion, continuation or tenure. As a result, sometimes

summative peer review of teaching reports are not shared with the person being reviewed where the report has been commissioned by another stakeholder.

Although a peer reviewer need not be situated in the same academic discipline as the person being reviewed, reviewers should be able to understand the subject matter (content) being taught as well as the realm of practice (context). Therefore the peer review of online teaching necessitates a reviewer having some experience with online teaching modalities and practices and what "good teaching" looks like online. As well, it is important for reviewers to acknowledge any limitations presented by the digital ecosystem in which the educator practices: criticising a colleague for not having used platforms or tools unavailable to them is neither equitable nor germane to the calibre of that person's practice.

Online versus remote

Much of what was done in reaction to COVID19 was a rapid "lift and shift" to remote delivery of teaching. In other words, extant plans for teaching face-to-face were adapted—quickly and often with limited (or no) support—rather than being wholly reconceptualised. Few educators had the competencies required to redesign courses for online delivery within a highly constrained timeframe (as little as one week, at my university), or access to academic developers or learning designers who could assist them. Therefore, the rapid move to remote delivery was adaptative, rather than transformative.

As a result, we saw an over-reliance on recorded lectures, a shift to online quizzes, tests and exams, and some limited synchronous sessions. These produced a range of unintended consequences, particularly for students burdened with hours of recorded and synchronous lectures on a given day. Cognitive overload was not uncommon; student engagement with these materials decreased over time, as did students' tolerance to this approaches.

Therefore, a peer review of a person's remote teaching practice would almost certainly revealed less than ideal practices. Among my colleagues, a number identified elements of remote teaching worked better than anticipated, but most colleagues nonetheless focused instead on what did not work well. Few would have felt their 2020-2021 remote teaching practice reflected their teaching prowess for a summative peer review. Yet many did want to learn and reflect on these experiences formatively.

It is therefore imperative to differentiate between remote teaching and online teaching. Starting from the practices rolled out across the first two years of the pandemic, discussions around the choices made, the consequences, and lessons learnt can be part of a formative peer review of teaching process.

Protocol

A number of the effective elements of face-to-face peer review of teaching are germane to online peer review. These include:

1. A purposive reflection on one's teaching practice and values, such as completing the Teaching Perspectives Inventory (Pratt, 2016)
2. A pre-observation meeting, including a discussion about the pre-reflection task, teaching philosophy, what literatures inform their practice, and the rationale behind the learning activities to be reviewed.

3. Reviewing in advance any available course materials, including learning management site, lesson plans, readings, other teaching collateral (such as slide decks), and related assessment objects.
4. Negotiating the number and timing of observations.
5. Reaching an understanding about reporting the outcome of the review.

These ensure a more holistic, comprehensive *peer review* of teaching is conducted, rather than a single session *peer observation* of teaching.

However, a number of distinct aspects of online teaching and learning also need to be reflected in a peer review of online teaching process. Among these are:

1. A discussion of the role of synchronous and asynchronous learning activities/
2. Articulation of the interactivity strategies in the course design, given the importance of interactivity in online learning (Anderson, 2008).
3. The extent to which student-teacher communication tools such as email and one-on-one video conferencing might be integrated in a review, if these modes of interaction are purposive elements of the course delivery design.

Unlike face-to-face teaching, where regularly timetabled lecturers, tutorials, or laboratory sessions are available to be observed, the practice of online teaching looks different, occurs differently, and should be analysed differentially.

Integrating both these into a single protocol yields the following:

1. A purposive reflection on one's teaching practice and values, such as completing the Teaching Perspectives Inventory
2. A pre-observation meeting
3. A discussion of the role of synchronous and asynchronous learning activities
4. Articulation of the interactivity strategies in the course design
5. The extent to which student-teaching communication tools such as email and one-on-one video conferencing are purposive elements of the course design.
6. Reviewing in advance any available course materials
7. Negotiating the number and timing of observations.
8. Reaching an understanding about reporting the outcomes of the review.

Peer review of teaching best practice includes more than observing one or more teaching sessions. Learning activities, assignments and tests, and learning outcomes are all often elements of a comprehensive peer review of teaching. Best practice includes having a pre-observation meeting to discuss matters to be foci, a debrief meeting after each observation, and the creation of documentation of some kind (often a report, but sometimes merely detailed notes) by the reviewer.

Conclusion

Whether endeavouring to improve practice or to ascertain teaching quality, peer review of teaching offers a different perspective than student voice mechanisms such as student evaluations of teaching. However, with online learning a relatively recent development in the

university teaching and learning enterprise, normative practices of peer review must be scrutinised and recalibrated when seeking to review a colleague's online teaching practice.

Those of us for whom online delivery is routine, reflecting on the divergent ways of teaching and assessing in wholly online courses helps to refine peer review processes when we review others' teaching. This also affords us opportunities to reflect on our own practices, what we do, and the reasons behind our decision making.

Having frequently served as a peer reviewer of others' online teaching, I recently realised my own teaching has not been summatively peer reviewed in a number of years. Finding a colleague well suited to review my niche, online postgraduate clinical education elearning course was challenging: my leadership roles in my faculty also presented a challenge. Like all who engage in having their teaching peer reviewed, I took a deep breath, reached out, and opened the (metaphoric) door to my (also metaphoric) classroom.

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Taking a “Pulse” in on-line learning – an effective engagement tool?

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Abstract

Engagement in online learning is increasingly described and monitored through sophisticated learner analytics that measure the time and activity of learners as they progress through their course materials. This data cannot, however, describe or monitor learner feelings (known as academic emotions) in their experience of on-line learning. This exploratory paper addresses a gap in research that considers how engagement tools, within the online learning environment, may influence facilitator responsiveness to learners’ academic emotions. The aim is to explore whether a specific on-line learning platform engagement tool, a ‘Pulse’ can provide insight (for facilitators) into learner emotional states and whether that insight provokes or influences on-line facilitators’ actions and/or responsiveness. This paper provides background information related to current understanding of academic emotions and specific detail on the use of the Pulse tool. This small-scale mixed methods study includes data collected from a first intake of four new programmes in Initial Teacher Education at the Open Polytechnic of New Zealand. The findings of this paper provide description for online learning designers and facilitators in how a simple Pulse tool might be used to understand learners’ emotional experiences in online learning. Findings further highlight the need to actively foster attention to learner emotions in online learning environments, and for seeking new or enhanced methods of intervening where academic emotions are negative and deactivating. There are implications for the design of Learning Management Systems in creating more sophisticated tools for recognising academic emotions, and for using these tools in ways that cross-reference with other data related to learner outcomes and experiences.

Introduction

Engagement in online learning is increasingly described and monitored through sophisticated learner analytics (LA) that measure the time and effort of learners through their online presence and activity (Bond, et al., 2023; Brown, et al., 2019; Prinsloo, 2022; Nichols, 2020). This data, cannot, however, describe or monitor feeling states associated with the learning experience, in fact, it is argued (Dron & Anderson, 2022) that such data systems may be employed to influence the learning process in ways that are related to purely objectivist learning outcomes. The Open Polytechnic LMS Pulse feature is described as a way “to gauge how your learners are feeling about their study and the materials they are learning” (anon., n.d.), thus closing the relational distance experienced in online learning through tapping into the emotional climate (Jaques & Salmon, 2007). Three different types of Pulse formats are available: a text response, which appears as a word cloud, a spatial response, and a multi-choice quiz. This study used the text response format.

The word ‘pulse’ suggests a metaphor from medicine, where measuring a pulse provides an indicator of the health of a patient. Various experiences, emotional or physical, influence a pulse rate; a raised and erratic pulse signals stress, a low and steady pulse signals a stable condition, and no pulse, signals death. In traditional Chinese medicine, a pulse reading is said to provide diagnosis and location of disease (Quanyu, 2022). Applying this metaphor to the experience of on-line learning is a new research direction. In 2017, an exploratory multimodal data study, Learning Pulse (Di Mitri, 2017), sought evidence that gathering PhD learners’

heartrates, step-counts, weather conditions, and learning activity data could be used to predict learner performance. This study reported “modest” results and “unsolved challenges” (2017, p.9) that emphasised inherent incompatibilities in the marriage of multimodal data and machine learning. Here, in online learning, taking a Pulse reading might offer an indication of the emotional states of a group of learners, however, as the medical metaphor suggests, knowing how to interpret that information must be equally important.

Facilitators can instigate a Pulse and set it to run for a specified period − minutes, hours, or days. Learners choose to respond, and this may depend upon whether they access the course during the time the Pulse is running, and whether they wish to share their feelings with others. The text Pulse results appear in real-time as a word cloud. In the interests of protecting anonymity and concerns around data security, the ability to drill down into individual responses is not enabled, therefore emotions are not attributable to individuals. Learners have access to displayed responses, viewing their own alongside those of their peers.

Figure 1: Pulse response

Research Aims and Research Questions

Contestable assumptions are inherent in the provision and use of this tool, namely, that engagement can be influenced by such events, and that asking about, revealing and/or paying attention to emotional states of learners will influence the behaviours or experiences of those learners, and/or the facilitator of the course. There are assumptions that this information would be perceived equally by learners and used equitably by facilitators. Frequency and timing of using the tool is left to the discretion of the facilitator and how the results of a pulse are interpreted or acted upon is not measured. Cultural implications related to how Māori and Pasifika perceive its use, or the information that comes from its use, is not considered. This research seeks to determine whether Pulse information about learners’ feelings, known as academic emotions (Pekrun & Stephens, 2012) resulted in actions from the course facilitators.

Literature review

A review of literature found that few studies have focussed on specific engagement tools available within LMS, or studies that linked academic emotions with LMS engagement tools. A recent literature review (Brown, et al., 2019) describes contestable understandings related to multifaceted elements of 'engagement' in online learning. This review found that knowledge is evolving in response to the rapid changes brought about by Covid -19. Most emerging literature centred on changes occurring in traditional campus-based delivery, with limited new literature arising from online modes of delivery. Another review, (Chakraborty & Muyia Nafukho, 2014) found factors such as creating and maintaining a positive learning environment, actively building a learning community, giving consistent and timely feedback were constant and prevalent in effective learner engagement. Literature reviewed here is reported under two inter-related themes: current understandings of online LMS engagement tools, and current understandings of how affective states influence engagement in online learning contexts.

Online learning Management Systems (LMS) engagement tools

Learning Management Systems (LMS) such as Moodle, Blackboard, Canvas, eCampus or mCampus, support the design and delivery of online learning (Chakraborty & Muyia Nafukho, 2014). Identified as one measure of engagement, interactions, understood as actions between individuals, are generally enabled in most LMS with built-in capability to facilitate and stimulate interactions between learners and academics, learners and content, learners and technology, and learners and learners (Chakraborty & Muyia Nafukho, 2014). These interactions are thought to stimulate engagement, reduce distance, increase social presence, yet, can also increase workload, being percieved by some learners as unnecessary "busy work" (Vrasidas & McIsaac, 1999). Brown, et al., (2018) found factors that influence learner engagement in the on-line learning environment to be quite low tech, more often related to access to knowledge, resources and supportive, quality relationships. Relational factors are identified as primary in influencing engagement in learners and associated with learners/tutor relationships, especially noted as an important aspect of Māori and culturally responsive pedagogies (MacFarlane, 2015). Engagement strategies, such as those found in learner-instructor interaction, including feedback, discussion forums, using learners' names, being available for questions, regular posting, announcements, and timely reminders are identified by Martin & Bolliger (2018), as leading to higher learner engagement in on-line learning. Recent studies that reference technology enhanced means of influencing learner affective states tend to focus on AI systems such as Chatbots, Intelligent Tutoring Systems (ITSs), including affect sensitive ITSs, and the now ubiquitous use of learner analytics (Bond & Bergdahl, 2023; Chakraborty & Muyia Nafukho, 2014). Tools thought to enhance collaboration such as Padlet, Discussion Forums, Wikis, twitter and increasingly, gamification, (Donaldson, et al., 2017) describe influences in participation with focus on the uptake of technologies. Chakraborty & Muyia Nafuho (2014) found the choice and use of these types of technologies as one of several factors to impact on engagement.

The influence of affective states on engagement in online learning

Pekrun & Stephens (2012, p.3), state that "emotions are ubiquious in academic settings," introducing the term "academic emotions" as emotions experienced in academic settings and influential in achievement and success. Whereas instructors in traditional learning

environments are often acutely aware of learners' emotional states and take responsibility for the emotional climates within, Lehman, et al., (2012) find there is less opportunity or ability to recognise or influence learners' emotions in online learning contexts. Affective states are identified as a factor of influence in engagement but often in association with other factors, such as cognitive and social elements (Louwrens, et al., 2015). Negative and deactivating affective states of loneliness and isolation, are associated with feelings of being overwhelmed and unsupported associated with on-line learning experience (Thistoll & Yates 2016). Pekrun & Stephens (2012) provide a three dimensional taxonomy of academic emotions to describe how positive and negative emotions are tied to achievement outcomes. Academic emotions can be activating or deactivating (Pekrun & Perry, 2014) and may be triggered by multiple factors: cognitive capabilities, course content, experiences of social interaction, workload and assessment.

Methodology

This study explored whether 'Pulse' information about learners' emotions would provoke actions from facilitators. Three facilitators were invited to implement a Pulse in their course/s with a question, "how are you feeling about your studies?" Following implementation, facilitators completed an information template. The facilitators were new to the Open Polytechnic and had no previous experience in using the Pulse tool. The template provided quantitative data from the pulse, including the number of learners who were sent the Pulse, number of learners who responded, and their reported emotions. Thematic analysis was used to understand how facilitators responded to the academic emotions expressed by learner.

Implementation steps:

- One word text response Pulse "how are you feeling", implemented throughout the first offerings of five courses in the Initial Education Suite of Programmes
- Three participant facilitators completed response template (appendix A)
- Pulse emotion response data analysed and categorised for emotions reported
- Pulse templates analysed for facilitator actions

Pulse data:

Nine Pulse events were implemented between week 1 and week 14 during the first delivery of the ITE programmes across 6 courses of 16 weeks duration, between February and July of 2023. Across these events, 46% of learners responded to the Pulse. Two separate Pulse events were activated at different times in two courses. In other courses, one event was activated. Across all events more positive than negative emotions were reported (31:26). Activating positive emotion "excited", and deactivating negative emotions, "overwhelmed" and "tired" were the most prevalent emotions reported.

Figure 2: Table of reported academic emotions.

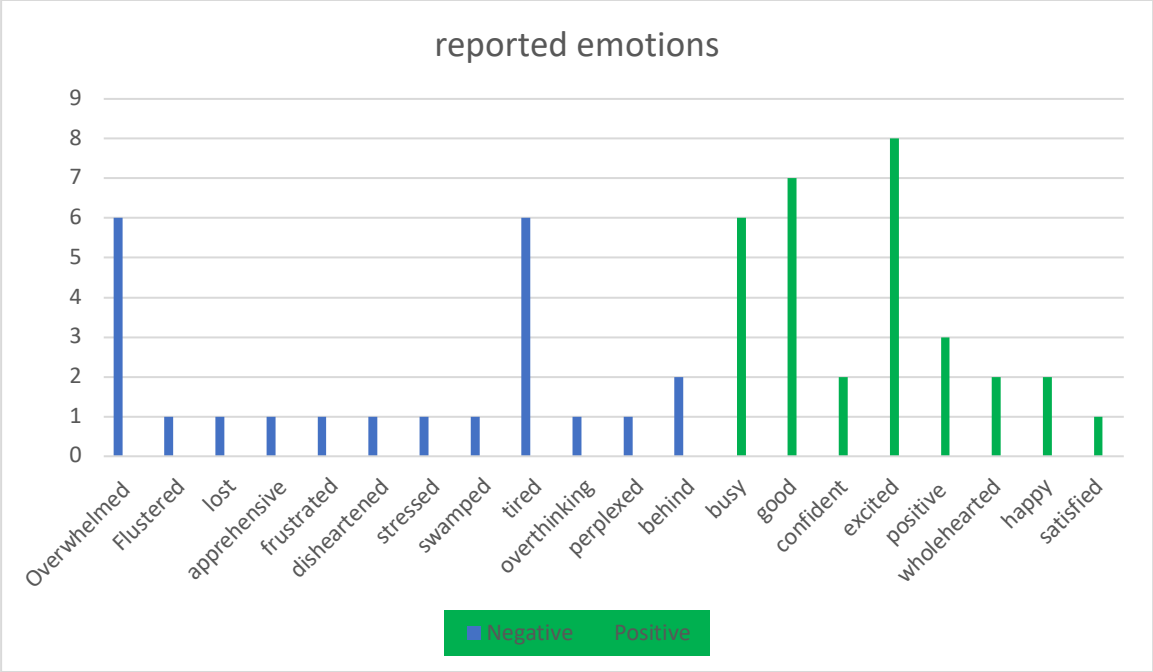
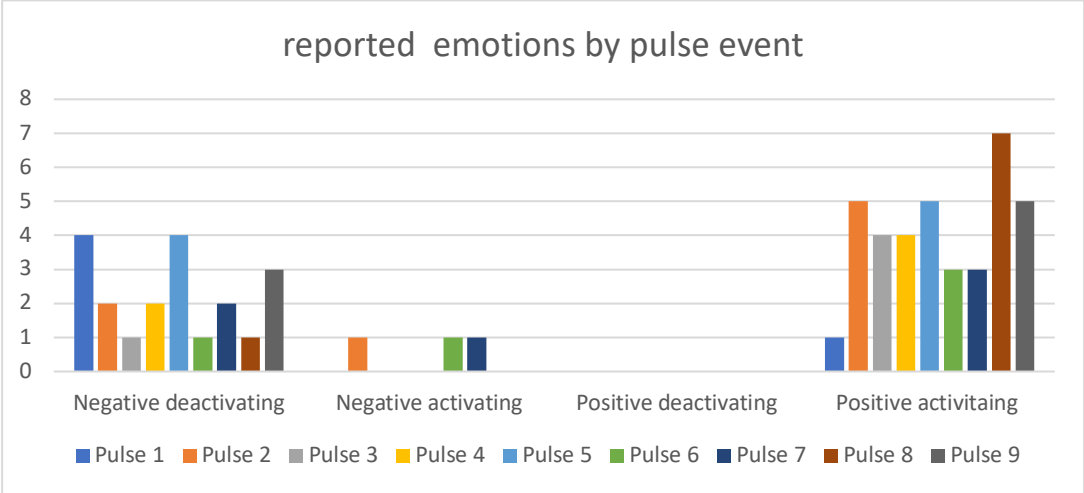
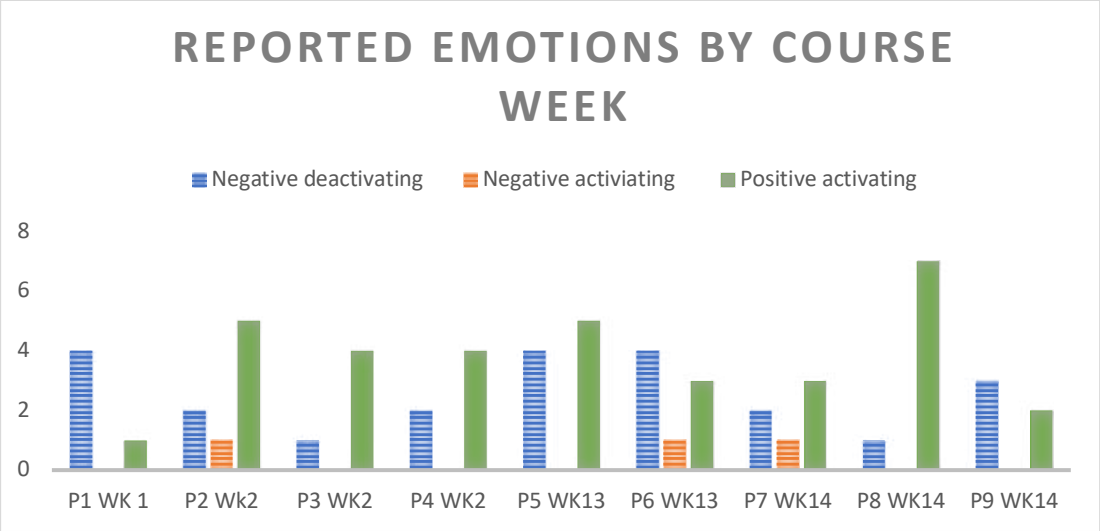


Figure 3: Categorised activating or deactivating negative and positive emotions by Pulse event



Using Pekrun & Perry's (2014) categorisation of academic emotions as activating and deactivating negative and positive, almost all reported negative emotions were deactivating, exceptions being "perplexed" and "behind". All positive emotions were categorised as activating. This suggests that the experience of negative emotions in on-line learning is likely to impact on engagement and outcomes, but this should be substantiated against interaction and outcome data.

Figure 4: Reported emotions by course week number



This dataset suggests that while the use of the Pulse tool cannot provide definitive insight into the academic emotions of a cohort of learners, it can provide a shifting sense of mood. In the first Pulse, academic emotions reported were largely negative and deactivating, perhaps reflecting uncertainty with unfamiliar learning context. By week 14, academic emotions reflected the sense of achievement at being near the end of the course, "happy", "good", alongside expressions of tiredness and stress associated with enduring academic pressure. Pulse events in week 2 reported more positive states that in week 1 and, by weeks 13 and 14, responses reflected satisfaction and effort. Both positive and negative emotions were reported across the early and later stages of course duration.

Facilitator Reflections and Actions

Three facilitators completed the information template, recording their feelings towards the responses and any actions they took. Their reflections were analysed thematically.

Theme one: Emotions are reciprocal: Insight into negative emotions promotes action

It appeared that negative feelings expressed by learners provoked similar feelings in the facilitator. After a Pulse event, the facilitator reported feeling worried that learners had reported negative emotions:

> "I spent some time in the night worrying about this as it was very unexpected to find that the people we had so recently interviewed who were then so excited, a few weeks later were already in quite an anxious state."

Awareness of learners' negative emotions had an activating influence on the facilitator who shared the pulse response information with other facilitators in the ITE team. The facilitator attempted to soothe learners' feelings by making a general post acknowledging the feelings expressed, reassuring learners, and providing information about managing stress and support available:

> "The next morning, I decided to post an encouraging message into the announcement talk channel. I also shared the pulse information with my colleagues so that we could think about this together. I asked if others were noting anxieties from students, and we

> talked about other feedback have we received. There was a general feeling that students were finding the workload quite overwhelming."

The feedback from the facilitators' team discussion resulted in collective two actions; the decision to include a live drop-in orientation hui for the next in-take, and to provide more detailed explanation of the workload expectations at the interview stage. Another facilitator implemented a Pulse in the next intake and noted similar actions in response to early indicators of stress from learners, but felt less concern about it:

> "I felt glad that I knew there was still some anxiety but less concerned than I was in the first intake. I sent an announcement message to the cohort to let them know that there was a group meeting later in the week with the hope that anyone feeling anxious or frustrated would attend."

Where more positive emotions responses were reported, this provoked more positive feelings for the facilitator but no new actions, other than thanking ākonga for participating in the pulse:

> "I was pleased to see that more positive emotions were expressed than from the first cohorts, I felt as though things were starting to settle down and that the initiatives put in place were having an effect"

Theme two: The limits of the information.

One facilitator activated a Pulse event and noting the negative responses, wanted to identify the learners so they could provide targeted support. The Pulse data did not allow this.

> "I did feel this information would be more useful if you could identify who it was that feeling overwhelmed and/ frustrated. On the insights page on the console, I could see who had replied, but not what their responses were. At this point in the course, I didn't know the students, so it wasn't possible to guess who was feeling overwhelmed and who was feeling frustrated, or what was provoking those feelings."

The course facilitator again posted an encouraging message and invited all learners to the orientation meeting planned for later in the same week, there were no direct responses from learners to this post. Another facilitator reported similar frustrations at the limitations of the data:

> "It was frustrating not to be able to see who was feeling disheartened only two weeks into the course, I had to be a detective to try to figure this out – I could see who hadn't responded to the pulse, so eliminated them, I could see who had responded and knew enough about the learners to try to guess who it was – I knew something of the personal circumstances of one student and concluded that they were the one who was disheartened, I didn't feel there was anything I could do, so I felt disheartened."

The restrictions on being able to individualise emotions did impose limits on the facilitators' responsiveness.

Theme three: Facilitators knowledge of the feelings of one cohort can inform the next.

Although there were too few Pulse events in this study to substantiate this insight, it appeared that the timing of the Pulse event reflected the mood in that phase of the course duration. Negative deactivating emotions appeared more prevalent when the Pulse event was earlier, whereas more positive activating emotions appeared later, towards the end of the course. Facilitators used this knowledge to coach learners in the next intakes of their courses.

> "It has been useful to tell newer ākonga that those a semester ahead were feeling the same as them and now are feeling excited and positive."
>
> "I have made a note to point out to ākonga earlier in the block that most final assessments are due Week 14, that they might feel overloaded at this stage and to prepare accordingly."

In this way, the Pulse events were useful to facilitators in providing an emotional map for subsequent cohorts of learners to follow.

Summary of findings

Pulse data revealed a range of reported academic emotions, the majority of which fell into the categories of deactivating negative emotions and activating positive emotions (Pekrun & Stephens, 2012). The timing of the Pulse event appeared to influence the reported emotions with more deactivating negative emotions reported earlier in a course duration, and increasing activating positive emotions reported later. The facilitator template data suggests that paying attention to the academic emotions of learners does stimulate actions for the facilitator of the course, and that deactivating negative emotions are more likely to lead to facilitator actions than reported positive emotions. The data supports the understanding that knowledge about a mood of a cohort provided by the Pulse tool is limited; individuals cannot be identified, emotions cannot be attributed, and the voluntary participation in the event dilutes any real sense of collective mood. While the facilitators actions were limited to general responses towards the whole of a cohort, rather than individualised responses to those who reported deactivating negative emotions, these actions − preventative strategies, messaging, emotional mapping − could benefit those who have reported their emotions and future cohorts of learners. While facilitators wanted individual identification of emotions, it is questionable whether this would enhance engagement or responsiveness. If identifiable it is conceivable that fewer learners might choose to self-report their feelings, or report falsely. Similarly, without clear guidelines and established expectations on the use of this data, there is risk that facilitator responses may not be equitable. This study does demonstrate that facilitators used the information about negative emotions in ways intended to enhance experience for learners.

Limitations

This exploratory paper is limited by its small scale, the number of learners in new courses and the number of participant facilitators. It is not possible to know if learners' emotional experiences were influenced by the newness of the courses or the inexperience of the facilitators. Additional studies could explore the use of this tool across a broader range of programmes. While findings suggest that the timing of the Pulse event may reflect mood, further studies could test this more conclusively though a timed schedule of Pulse events. This study was unable to provide any evidence related to the equitable use of this tool or whether its use is culturally responsive to ākonga Māori and/or Pacifica learners. Further studies could seek data from learners, exploring their experiences of using the pulse tool and how it might influence their engagement.

Conclusion & Implications

Returning to the medical metaphor where taking a pulse provides an indication an individual's state of health, this study has shown that a Pulse event in on-line learning contexts may

provide some indication of mood, but further tests should be called for. Findings highlight the need to actively foster attention to learner emotions in online learning environments and for seeking new methods of intervening where academic emotions are negative, and deactivating (Pekrun & Stephens 2012). There are implications for the design of LMS in creating more sophisticated tools for recognising academic emotions, and for using these tools in ways that cross-reference with individual learner engagement and outcome data. Studies that consider the influence of learning environment on learner engagement and success should also include features of LMS as unique in the way they may influence academic emotions. This study provokes further questions about how information about learners' experiences is generated and used in an environment rich in analytics but poor in the processes of mining, interpreting and integrating multimodal sources of data (Di Mitri, 2017), including affective states, that lead to purposeful intervention and support.

References

Practice Papers

A Case Study for Introducing an Interactive Oral Assessment

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Abstract

'So you want to introduce an Interactive Oral Assessment (IOA)?'

The problem we are all facing with advancements in artificial intelligence and ease of contract cheating is that pursuing situated, authentic, relevant assessment has become more challenging, particularly in the Open Distance Flexible Learning (ODFL)environment.

Confirming authorship can be problematic because it is often difficult to confirm what we are marking is the learner's own work. How do we know if the learner has the level of understanding and depth of knowledge to be able to produce their assessment submission independently?

An IOA is like a conversation that we have in our workplaces every day, for example, allowing stakeholders to better understand a report (submission) and to question it to gain understanding (assess) to support a way forward in a workplace environment.

An IOA also gives assessors confidence in the underpinning knowledge of ākonga. When supported with clear criterion it allows assessors to make clear, evidenced judgements.

IOA also supports the development of other essential skills, such as critical thinking, communication, negotiation while confirming authorship.

IOA, as an assessment strategy, offer solutions to many of the problems we face with assessment today, however introducing them, particularly in an ODFL environment brings challenges as identified from two pilots at the Open Polytechnic:

- Defining the difference between IOA and other existing oral assessment strategies to colleagues and learners
- The fear of the unknown
- Implementing a new assessment strategy into a learning environment that already exists
- Designing assessment tasks supported by 'assessor prompts' and marking criterion that result in consistency in assessor judgements.
- Ensuring technical systems and processes support learner and academic needs.

Preliminary feedback from the second offering of a pilot IOA has been encouraging and aligns to findings from other institutes.

In conclusion, IOAs change the assessment landscape and support the development of graduates as 'fit for purpose' contributors in the workplace.

Allow us to share our journey, so far, to support your journey. Know how we have defined and are implementing IOA as an assessment strategy. Learn how we have

designed assessment tasks, assessor prompts, marking schedules and support for both ākonga and assessors to achieve consistency in assessor outcomes.

We will answer the questions of what an IOA is, where does an IOA fit and how does an IOA fit.

Join us on the journey that we are still on.

Introduction

At Open Polytechnic, we are investigating how to make assessments more enduring, meaning - they can be reused with confidence, promote academic integrity by design, are resistant to AI challenges, and provide an authentic, situated, valid, reliable assessment opportunity for ākonga.

Interactive oral assessment (IOA) is one strategy we are adopting to achieve enduring assessment design. This paper is an overview of our journey so far.

What are Interactive Oral Assessments? How are they different from other question-and-answer assessments?

An IOA is a brief, genuine and meaningful conversation between ākonga and an assessor. The conversation is in response to informal conversation prompts on topics ākonga have had an opportunity to prepare for. Assessors confirm Ākonga identity as part of the IOA. The IOA can be recorded (recommended), and is usually between a single ākonga and assessor, but can be a group of ākonga or be assessed by a panel. It is designed to simulate real-life scenarios where a professional conversation would occur.

- Example 1: following a research project on a chosen sports organisation, ākonga participate in a simulated job interview for the same organisation.
- Example 2: ākonga take on the role of project manager at a manufacturing company. They design the manufacturing processes for a new product and submit their design to the Manufacturing Manager for review/feedback. They then meet with the Manufacturing Manager to discuss their design (discussion part is the IOA).

The assessor, in their ‘professional role’, uses prompts that allow ākonga to extend, synthesise, and/or reflect on their initial task. The conditions are open book and ākonga can refer to their previously completed/submitted work. Ākonga understanding is assessed through their verbal explanations by evaluating against marking criteria. The IOA should have significant weighting (usually 25—50%, although some institutes have made it 100%). If an assessor believes, based on the performance of ākonga, that they have not done the initial work themselves (e.g., suspect contract cheating), this becomes an Academic Integrity issue, and those processes should be followed rather than attempting to award marks.

An IOA is designed to reduce anxiety for ākonga by removing formal oral exam style, structure, and power dynamics. An IOA aims to develop ākonga professional skills and enhance their employability while supporting academic integrity. As an assessment option, it is well researched:

> “An Interactive Oral is not a question-and-answer oral exam, but rather an authentic, industry-aligned conversation that extends and synthesizes the student’s knowledge

to demonstrate and apply course concepts in a scenario-based interaction." (Logan-Fleming, D., & Sotiriadou, P., 2020).

Where does an IOA fit? How does it fit? (ODFL)

An IOA fits best

- Following on from an authentic assessment task. This supports academic integrity, which is a particular challenge in an ODFL environment.
- When stakeholders are invested in the approach. The success in implementing an IOA is dependent on buy in from stakeholders.

IOA is a valid and reliable form of assessment

Research demonstrates that IOA is an effective form of invigilated assessment preparing students for professional life, combating plagiarism and promoting academic integrity (Ward, M., O'Riordan, F., Logan-Fleming, D., Cooke, D., Concannon-Gibney, T., Efthymiou, M., & Watkins, N., 2023).

The validity of the approach is based on it being suitable to measure both subject knowledge and communication skills. As an example, the ACCY7104 Professional Accounting Project course has GPOs and PCAs (Professional Competency Areas) that are mapped to the course, so it is valid to assess communication skills (either written or spoken).

Reliability is supported by

- formative opportunities for ākonga,
- a well-designed criteria-based marking schedule,
- assessor training/guide,
- review and moderation procedures.

Practice under scrutiny: Our journey

IOAs within the Open Polytechnic environment have been piloted twice (CON108 and DE6310) and continue to be used in DE6310. From the pilots, we have ensured we have the technological tools and established guidelines and processes to support this as an assessment type in a fully online environment.

Technological requirements

We used Teams which is set up to record the IOA session automatically and store it on a Teams channel (rather than an individual's account). The recordings usually automatically expire, so an IT administrator must change settings for that channel to meet institutional requirements for post moderation.

Bookings App is used for leaners to choose from a range of times and manage large cohorts of learners. This can be set up individually for small cohorts.

Assessment Design guidelines

Our experience has shown us that clear guidance and exemplars of good assessment design give learning designers the confidence to design IOAs. Part of the design process is ensuring that learners are scaffolded in their coursework

toward this type of assessment through exemplars, and assessors are given clear guidance and training in how to use prompts and engage with the learner.

Challenges and lessons learned

By piloting IOAs twice, we were able to identify challenges and work towards implementing solutions from the lessons learned.

Challenges

1. Getting a new assessment strategy accepted within the organisation.
2. Establishing support processes and procedures around IOA including training assessors, developing suitable guidance/support documents, and ensuring we have the technology capabilities to support IOA.
3. Getting an IOA assessment to land with the correct design.

Lessons learned

1. Change on an organisational level takes time and effort.

   First Pilot

   Our first pilot IOA didn't get off the ground due to resistance from some key stakeholders.

   The pilot exposed concerns with assessor bias and lack of buy in from Delivery partners to the approach. Due to time constraints and lack of confidence, we offered a backup traditional approach for learners.
2. Piloting with the support of a community of practice is key to ensuring we can develop IOAs and provide the support processes and procedures.
   First Pilot
   Working within a community of practice supported by Danielle Logan–Fleming from Griffith University in Australia, we designed our first IOA for an assessment within a construction course

   Part of the engagement was with industry stakeholders and the feedback was supportive, especially around the development of the soft skills, particularly communication in the environment
3. An IOA needs to be clearly defined and supported with exemplars so all stakeholders can understand it in the context of the environment and the key differences with other traditional oral assessment strategies.
   Second Pilot

   Request for an IOA came from the course leader, who had a predefined definition of the type of oral assessment desired to meet a specific need. The design approach is not strictly an IOA, however, it is a valid assessment that is serving its purpose.

We are now applying the lessons learned to our third IOA as we continue our journey. The request came from the development team and is supported by the delivery team. It has successfully been through an organisational approval process.

Discussion and conclusion

IOAs are an effective form of authentic, invigilated assessment that promotes academic integrity. It takes time and effort within an organisation to establish processes, test technology, develop guidance and training resources. Bringing others within an organisation along the journey is key to being able to adopt IOAs successfully as an assessment strategy. Partnering with others who can act as guides on the journey helps navigate the challenges encountered.

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Assessment Teams: supporting consistency in marking in large scale ODFL delivery

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Abstract

In 2018, Kuratini Tuwhera | Open Polytechnic New Zealand transformed assessment practices by centralising marking and utilizing adjunct markers in the majority of programmes and courses. Included in this transformation is the centralisation of assessment production and the establishment of the Assessment Centre.

Kuratini Tuwhera | Open Polytechnic operates at scale and at distance, with some courses having thousands of current ākonga (learners). Scale and distance introduce challenges for ensuring adjunct markers are making consistent judgements.

The Assessment Centre has responsibility for ensuring consistency of marking practice and outcomes. To achieve this across a diverse portfolio of programmes, 'Assessment Teams' were introduced, leveraging the Microsoft Teams (MS Teams) application.

Introduced in 2020, the initiative utilising the MS Teams environment has been instrumental in fostering a more empowered approach by providing a platform for markers, review markers and academic staff to critically engage in collaborative discussions to do with both assessment product and marking practice.

This paper delves into the conceptualisation, evolution, function, and the ultimate impact of the use of Assessments Teams to improve marking consistency at Open Polytechnic. It highlights the successes as well as the challenges encountered along the journey, critically examining the efficacy of the Assessment Teams approach in achieving its intended objective of marking consistency but also continual product improvement.

Drawing upon contemporary literature in related fields, this paper outlines the rationale and objectives for the use of Assessment Teams, and the evidence base that supports the organisation's confidence in using this approach. It also seeks to support the use of Assessment Teams by considering evidence from sources such as moderation, marking product changes, interventions to correct practice, and data collected from internal surveys.

The effectiveness of the Assessment Teams is measured against their primary goal of enhancing marking consistency. As part of the journey to explore the hypothesis that Assessment Teams positively contribute to marking consistency in large scale distance provision, this practice paper aims to highlight the key factors that are instrumental in their success. Subsequently, we aim to provide advice for educators involved in national programmes of learning that are seeking consistency of marking practice from a diverse and distributed workforce. This paper will also provide

valuable insight into how the use of digital communities, such as Assessment Teams can contribute to marking consistency in large scale distance education provision.

Introduction

Kuratini Tuwhera | Open Polytechnic (OP) conducts assessment marking through an adjunct marking workforce. Assessment marking is done online through OP's Online Marking (OLM) proprietary software. Courses may have large numbers of learners, who are not grouped into cohorts, instead enrolling at any time and working individually through their course requirements. Supporting adjunct markers to make consistent judgements and provide suitable feedback to learners is a priority to ensure fair and valid assessment.

In 2018 OP established the Assessment Centre to manage marking practice. One objective of the Assessment Centre was to directly support groups of markers who are working online asynchronously in programme-of-study groups.

Assessment Teams were introduced in 2020 to provide controls for the Assessment Centre in an environment where marking practice was previously managed in small groups by academic staff using email and personal communication.

Anselmo, Wright, and Stepanchuk (2022) noted the ability of online communities of practice to provide validation of good practice. Other organisations have also noted the positive effects of communities of practice to enhance collaboration between members, (Pyrko, Dörfler, & Eden, 2017). This is important as large cohorts can equate to large groups of markers where the management of marking consistency becomes more challenging.

Our team thought this collaborative environment would have a positive effect on marking practice. In addition, we hypothesised that central control of messaging, provision of resources and work allocation would also enhance consistency of marking judgements.

Practice under scrutiny

Our Solution: Creating Communities of Practice using MS Teams

In 2020 Assessment Teams were conceptualised and described. The method of roll-out was agreed and integrated into the Assessment Centre development plan. Assessment Teams were then iteratively rolled out through the Assessment Centre, at first working with academic staff who supported their introduction.

Over time we observed that there were activities and behaviours that contributed to the effective operation of an Assessment Team.

- Focused Discussion: Frequent discussions about marking schemes, rubrics, and standards help maintain marking consistency across the team.
- Acknowledgement: Recognising and validating the contributions and concerns, including comments not necessarily relating to marking, of all team members to foster belonging and value.
- Stakeholder Engagement: enabling the voice of markers, academic staff and programme management to support balanced judgements.
- Timely and Supportive Engagement: Addressing concerns and issues around marking practice promptly to provide clear direction for markers.

There were also structures and roles that contributed to the effective operation of an Assessment team

- Uniform arrangement of MS Teams' channels and file locations
- Clear roles and responsibilities
- Support with administration services
- Clear marking protocols and expectations

The roll-out of Assessment Teams for all Programmes of study at OP took three years. The iterative process used allowed feedback from early adopters to inform the development of the structures and advice provided to new and existing Assessment Teams. The Roles and Responsibilities of Assessment Teams required ongoing discussion and review.

Discussion

We noticed that:

- Faculty support for the change is a critical success factor
- Clear roles and responsibilities are important for the smooth functioning of an Assessment Team.
- Community of practice elements, such as a clear purpose and leadership, are essential for meaningful engagement.
- Access to the MS Teams software needs to be easy with support provided for adjuncts who are unfamiliar with the product.

Conclusion

Tools for supporting consistent marker judgements will become more important as learner's expectations of flexibility increase alongside increased provision of blended learning opportunities (Beer, 2022).

Assessment Teams enable continual improvement of marking practice. However, this does not map conveniently to improved consistency of marking judgments.

Feedback from initial surveys and analysis of marks awarded suggests the functionality an Assessment Team affords has a strong positive influence on marking consistency.

Next steps

The hypothesis that Assessment Teams have a measurable positive influence on marking consistency in large scale distance programmes requires data to conduct a robust and reliable evaluation.

This data includes definitions of the maturity of an Assessment Team, which are informed by the elements and activity within the Assessment Team. With clarity of the maturity of an Assessment Team, comparisons can be made between Assessment Teams in foundation stages and Assessment Team's with mature practice.

So, by comparing assessment marking data through anonymised marker variance reporting at different times in the lifecycle of an Assessment Team, our team intends to establish the validity of the hypothesis.

Over the next 12 months marking variance data will be analysed at differing stages of Assessment Teams where the people involved are consistent.

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TVET Professional Development in the Pacific: A Toolkit Approach

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Abstract

The TVET Online Toolkit (the Toolkit) was developed as part of the partnership for the open distance and flexible learning (ODFL) in the Pacific project funded by the New Zealand Ministry of Foreign Affairs & Trade (MFAT). Commonwealth of Learning (COL) and its regional centre (Pacific Centre for Flexible and Open Learning for Development (PACFOLD) hosted at the University of the South Pacific are implementing the project, aimed at improving access to equitable and quality training opportunities in the Commonwealth Pacific Island countries (PICs): Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

The open access Toolkit was designed for continuous professional development (CPD) of practitioners for self-directed and life-long learning. The micro-learning resources it contains allow practitioners in a range of roles to engage in bite-sized learning about professional capabilities that interest them whenever and wherever it is convenient for them.

The resources on the Toolkit were designed through extensive consultations with key stakeholders in the Pacific, including teachers/trainers, leaders, and employers. The resources include mix of curated e-learning modules, case studies, research articles, and templates tailored to the regional labour market needs. The recourses were piloted at 5 TVET institutions in 5 PICs between 2022 and 2023.

A CPD framework was developed and piloted, that enabled analysis of the resources, identification of gaps in the Toolkit, development of a capability mapping tool, and guidelines for future development of the Toolkit.

The mapping tool was developed and piloted, that provides a structured way for practitioners to engage with the resources, to help them to self-assess their capabilities, identify the capabilities they want to strengthen, find relevant resources on the Toolkit to help them strengthen the desired capabilities, and think about how they might demonstrate their capabilities to enable micro-credentialling.

A community of practice (COP) was established to encourage connections and collaboration, with the identification of in-country coordinators in the PICs to advocate for the Toolkit and to provide mentoring support to the practitioners, coordinated by PACFOLD. Practitioners can access and adapt resources online and offline for their CPD using informal learning approaches. A mid-term evaluation report points to the potential of reaching those who would otherwise not be reached through formal and non-formal learning approaches.

This practice paper summarises the context and purposes, innovative mechanisms and technology, practical application and implications of the Toolkit in fostering the transformation of CPD within the Pacific's TVET landscape.

Introduction

To ensure the quality and relevance of technical and vocational education and training (TVET), continuous professional development (CPD) programmes are offered through formal, non-formal and informal approaches. While formal and non-formal CPD approaches are common, the use of informal approaches in community settings, workplaces, and civil society activities are less prevalent. Informal approaches are used to train teachers on climate change adaptation and disaster risk reduction[1], leadership and management training[2], and for the delivery of basic education[3]. However, literature on credentialing and the recognition and accreditation of credentials earned through informal approaches is relatively scares in the PICs.

TVET practitioners should continuously update their pedagogical, technical, and transversal skills to stay current with trends, technologies, and best practices in their occupational fields. Frameworks used for CPD include Kolb's learning cycle, Gibbs' reflective cycle, the 70:20:10 model, and the four-step process model, amongst others. Some of the models of CPD used globally can be categorised as training, award-bearing, deficit, cascade, standards-based, coaching/mentoring, community of practice, action research, and transformative[4]. Studies indicate the need for effective TVET management and coordination, affordable and equitable access to quality skills training across Commonwealth Pacific Island countries (PICs) to address the ever-changing labour market needs[5]. However, there is a notable lack of literature on CPD for competence-based training, assessment and foundational skills for self-directed and life-long learning using informal learning approaches in the PICs.

The TVET Online Toolkit (the Toolkit) was developed as part of the partnership for the open distance and flexible learning (ODFL) in the Pacific project funded by the New Zealand Ministry of Foreign Affairs & Trade (MFAT). Commonwealth of Learning (COL) and its regional centre (Pacific Centre for Flexible and Open Learning for Development (PACFOLD) hosted at the University of the South Pacific are implementing the project, aimed at improving access to equitable and quality training opportunities in the PICs: Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

The open access Toolkit is designed for CPD, offering practitioners bite-sized self-directed and life-long learning opportunities accessible anytime and anywhere at their convenience. The aim was to improve the quality of instruction and result in increased access to high quality learning and training opportunities for youth. The practitioners targeted include tertiary TVET providers and their industry partners, TVET practitioners, and state officers at TVET agencies and ministries responsible for TVET.

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[2] Leadership and Management Training in Pacific Island Countries | SpringerLink

[3] https://www.cedol.org/wp-content/uploads/2012/02/82-84-2007.pdf

[4] Models of Continuing Professional Development: a framework for analysis

[5] Skilling the Pacific: Technical and Vocational Education and Training in the Pacific | Asian Development Bank (adb.org)

Practice Under Scrutiny: Professional Development of Practitioners Using Resources on the Pacific TVET Online Toolkit

Project activities commenced in 2021 with extensive consultations with TVET teachers, trainers, leaders, and employers across the PICs to define the objects and refine the requirements for CPD using self-directed learning approaches. Stakeholder involvement and feedback was instrumental in shaping the design of the Toolkit and the development of relevant micro-learning resources.

To identify the professional training gaps the Toolkit should address, virtual workshops were conducted with six TVET stakeholder groups from PICs using the double diamond approach. The consultations revealed that TVET implementation varies across the countries, particularly in the tourism, construction, and agriculture sectors. Challenges identified include inequitable access to education, vulnerability to natural disasters, geographical remoteness, limited resources, and tight budgets. As a result, there few CPD opportunities, insufficient learning resources, difficulties with competency-based learning and assessment, unclear TVET pathways, and prevalent stereotypes.

An iterative design process for the Toolkit started in 2021, focusing on accessibility anytime, anywhere, with downloadable and printable content. It supports practical use of micro-learning resources in workplaces and features a user-friendly interface for easy access and navigation. The curated content is culturally relevant and aligned with training context and practices across the PICs, offering a range of resources such as e-learning modules, case studies, and templates to enhance the professional skills of TVET practitioners.

The Toolkit is designed with 'how-to' micro-learning modules that TVET practitioners can freely download and use offline without needing to sign in. It includes resources on competency-based learning and assessment and developing competency-based learning resources. It also includes resources on how to teach online, engaging with communities of practice, collaborating with industry, and promoting TVET as a viable pathway. Additionally, TVET leaders can find resources on enhancing new staff capabilities and providing CPD. Employers can find resources on competence assessment, building relationships with providers, and evaluating competence in the workplace.

With support from COL, seven partner institutions from Papua New Guinea, Fiji, Kiribati, Samoa, Solomon Islands, and Tonga conducted unstructured CPD pilot activities. These activities follow a four-phase process:

1. Design Phase: Institutions hold workshops to set CPD goals and develop detailed implementation plans.
2. Activity Phase: Teams carry out CPD activities with guidance from institutional mentors.
3. Reflective Practice Phase: Teams use learning logs or e-portfolios to reflect on their learning and assess progress against CPD goals.
4. Application Phase: Individuals and teams apply the acquired knowledge and skills in their jobs.

During the pilot, several challenges were identified: intermittent internet connectivity in parts of the Pacific, high internet costs, insufficient digital devices, language barriers (as English is a second language), difficulties in measuring and tracking progress, and low ICT literacy

among some practitioners. Common misconceptions included the belief that the Toolkit is a course requiring a facilitator and certificates, that it provides subject-specific content, and that ministries or institutions should support or incentivize its use.

To address the challenges from the pilot phase, a CPD framework was developed in 2023 to analyze the Toolkit's resources and identify gaps. This led to the development of a professional development framework, a capability mapping tool, guidelines for future Toolkit updates and a sustainability plan. Additionally, in-country coordinators were trained to advocate for the Toolkit, provide mentoring and support, and monitor self-learning using the micro-learning resources on the Toolkit.

The professional development framework outlines key capabilities across four domains: core, design, delivery, and leadership.

TVET Professional Development Framework for TVET Practitioners in the Pacific: Domains and Capabilities

Core	Design	Delivery	Leadership
Maintain and build current vocational skills and knowledge	Design learning experiences	Provide a safe and engaging learning environment	Mentor and coach
Collaborate and communicate	Develop learning resources	Facilitate learning experiences	Engage with industry
Use digital technology	Design assessments	Evaluate courses and programmes and their components	Promote the benefits of TVET
Engage in professional learning	Validate and moderate assessments	Conduct assessments	Lead programme and course design
Understand TVET frameworks and the relevant legislation	Embed language skills in learning programmes	Mark and grade assessments	Lead programme delivery
Understand and apply adult learning theories	Embed digital skills in learning programmes	Connect learners with wrap-around supports	Manage programmes and courses
Understand and display professional and business ethics	Embed literacy skills in learning programmes	Support foundation skills learning in a vocational context	Arrange professional development activities
Understand and apply work-related health and safety requirements	Embed numeracy skills in learning programmes		
Understand and use inclusive practices and cultural competence			

Based on the capabilities, a mapping tool was developed to help practitioners self-assess their capabilities, identify areas for improvement, access relevant resources on the Toolkit to help them strengthen the desired capabilities at their own time and place, and consider how to demonstrate their skills for micro-credentialing.

A community of practice (COP) was established to encourage connections and collaboration, with the identification of in-country coordinators in the PICs to advocate for the Toolkit and to provide mentoring support to the practitioners, coordinated by PACFOLD, as part of the sustainability plan.

Discussion and conclusion

In this practice, stakeholders are involved in the design, development, implementation, monitoring and evaluation (David Johnson and Roger Johnson's Cooperative Learning theory and Kenneth Bruffee's Collaborative Learning theory). TVET practitioners use a mapping tool

to self-identify prior professional capabilities and their knowledge or skill gaps (Habermas & Honneth critical social theory). They then use self-directed learning approaches and technologies at their own time, pace and places (Knowles theory of andragogy) by constructing knowledge and skills (Piaget and Vygotsky constructivist theory), through experiences (Klob's experiential learning theory) with the micro-learning resources on the Toolkit as they observe and model practices by experienced trainers at their respective institutions and mentors in their community of practice (Bandura's social learning theory). The practitioners also reflect on their experiences through e-portfolios and communities of practice (Schön's reflective practice theory) leading to transformative changes (Mezirow's transformative learning theory) for social justice, empowerment and lifelong learning.

Challenges are being addressed through the deployment of COL's AptusPi devices for offline micro-learning, upgrades to the Toolkit for improved interactivity and offline use, enhanced mentor support, and AI integration to aid self-directed, lifelong learning.

Professional skills gaps and skills mismatch amongst TVET practitioners were noted while piloting use of the micro-learning resources on the Toolkit. TVET practitioners need to develop a culture for self-initiated learning through structured or unstructured CPD programmes. Use of structured CPD characterised by planned learning outcomes typical in formal or non-formal learning settings should be encouraged, that is evidenced by enrolment and attendance records, completion records, and assessment records. Unstructured CPD characterised by unplanned learning outcomes typical of informal learning settings should also be encouraged, that is evidenced on their respective e-portfolios using artefacts and reflections on mentorship and on-the-job training records, performance reviews or appraisals, and satisfaction or feedback survey reports.

In general, the desired outcome in the TVET sector in the PIC, is for practitioners to develop and demonstrate work-oriented capabilities and receive credentials for these skills. Open learning approaches will provide equitable access to quality professional development. Credentialing of professional skills benefits individuals, employers, and the community. Plans are underway to develop a framework for credentialing micro-learning and developing credentials within PACFOLD's learning management system, in alignment with the Toolkit's micro-learning resources. National and regional qualification bodies should appreciate the Toolkit's relevance for CPD and recognise and accredit credentials earned through unstructured and informal learning methods. Plans are in place to validate the sustainability plan with stakeholders as the practice is scaled in more PICs.

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Creating a scalable and sustainable professional development eco-system

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Abstract

COVID-19 and the resulting global pandemic ushered in far-reaching changes for universities worldwide. Four years on, much has changed at Massey University | Te Kunenga Ki Pūrehuroa and the wider New Zealand tertiary education sector. With much of its offer online prior to COVID-19, Massey University was better placed than most other New Zealand universities to pivot to online teaching and learning. This was not the case for the professional development offer for academic staff which was predominantly in the form of campus-based workshops (Massey is a multi-campus University) catering to small groups of interested staff.

While COVID-19 initiated the need for change, university factors influenced the approach adopted. Primary among these were the revised University strategy (2022) and Paerangi, the updated Learning and Teaching Plan (2023). Added to this, the demand for more flexible and on-demand options (for geographically dispersed academic staff) that could be personalised, alongside the requirement to make better use of limited central teaching resources made a compelling argument for change.

To ensure equitable provision of professional development (PD), the Centre for Education Transformation (CET), responsible for PD, developed a learning and teaching eco-system framework. The eco-system consists of self-access resources and communities, support on request, partnership projects, sharing practice, and a development pathway (via a teaching portfolio). The development pathway is the focus of this paper.

The development pathway provides a guided approach for staff to evidence their practice and growth in their teaching through the development of a teaching portfolio. The teaching portfolio provides evidence of practice and continuous development and can be used for promotion, performance appraisals, entrance into Advance HE fellowship pathways, teaching awards, and SoTL opportunities. The pathway itself consists of an online, flexible facilitated course, plus online modules (in areas of identified need) that can be engaged with flexibly in a self-directed way or actively with a group of colleagues (either on-campus or synchronously online). Staff can continue to engage with the online modules to develop their teaching portfolio through the module challenges at three different levels to earn Foundation, Growth, and Influence badges.

To date, the online facilitated course was launched in semester 2, 2023 and a third offering is currently underway. Development of the online modules is nearing completion and will be launched in mid-2024. This paper discusses the innovation and success of the approach and the lessons learned so far.

Introduction

Late in 2022, the CET (led by the Teaching Academy (TA) team) embarked on a process of developing a coherent teaching professional development offer to meet the changing needs

of staff. Massey employs about 2,800 staff across its three campuses as well as an increasing number who are not campus-based. Of that total, approximately 1100 are on academic contracts (which include teaching and research responsibilities) and 1700 are professional staff, many of whom are actively teaching or supporting teaching and learning in service roles.

While COVID-19 initiated the need for change, university factors influenced the approach adopted. Primary among these were the revised University strategy (2022) and Paerangi, the updated Learning and Teaching Plan (2023). A key goal of the University strategy is "to invest in staff development and capability" (2022, p. 11). The process of deciding what the new PD offer might look like involved consultation with a range of staff across the university to understand the needs of various groups. It was clear from this consultation that staff were time-poor, wanted PD opportunities that that were tailored and personalised for them (i.e., just in time and just for me) (Peters, 2007), bite sized (just enough) and was flexible enough for them to be able to fit it in with their increasing workloads.

In addition to addressing needs of staff, limited resource availability within the TA team (i.e., 2.5 staff) meant that issues of sustainability and scalability were major considerations influencing the design. These constriants necessitated moving away from a traditional in-person, small scale PD workshop approach which is commonplace in Higher Education. Working closely in partnership with the educational designer team, we developed a learning and teaching eco-system reflecting well-established elements of effective professional development (Darling-Hammond et al., 2017) consisting of self-access resources and communities, support on request, partnership projects, sharing practice, and a development pathway via a teaching portfolio (see Figure 1). To ensure sustainability and scalability, the development pathway design incorporates intentional low-touch facilitation (i.e., facilitation at key points throughout the process) and models good course design.

Practice under scrutiny.

The first stage of development pathway was the launch of Kia tū ngaio: Aro takitini (Introduction to the teaching at Massey) in semester two, 2023. This course, designed with low-touch sustainable facilitation in mind, is offered in semesters one and two and takes about 25-30 hours to complete. It is online and self-paced where participants can tailor their pathway and is designed to suit various experience levels of staff including those new to teaching, new to Massey, and new to Aotearoa. The course culminates in a professional conversation, about the teaching portfolio developed during the course, between the participant and a facilitator. The participant receives a digital badge on the successful achievement of the course learning outcomes.

This course is in its 3rd iteration. From the first iteration in semester one, 2023 to the end of semester one, 2024, 44 people have successfully completed the course. Tables 1 and 2 show a snapshot of feedback received from the evaluation survey to the end of semester 2, 2023. While the dataset in relatively small at this stage, initial signs are positive.

Figure 1: Kia tū ngaio: He tukanga whakaako | Learning and teaching eco-system at Massey University

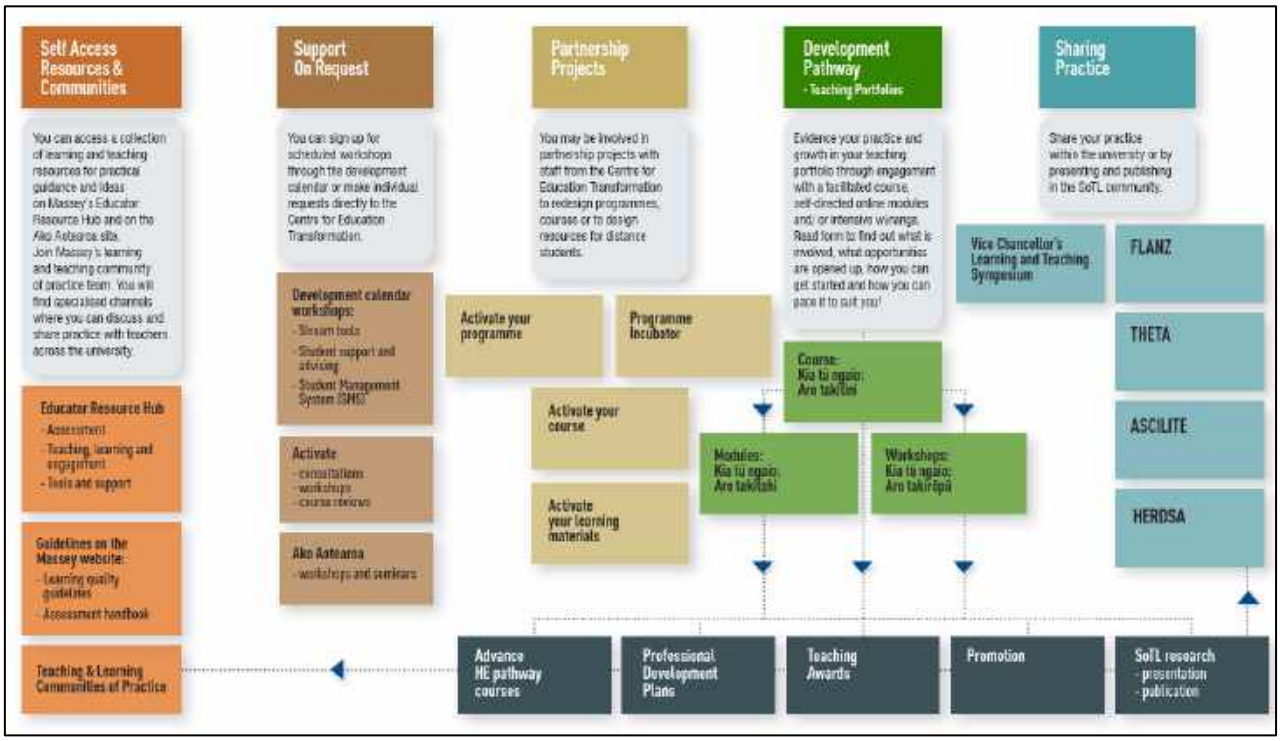


Table 1 shows that 89% indicated that course design was moderatelyto very effective and 94% indicated that assessment activities were moderately to very effective.

Table 1: Effectiveness of course design and assessment activities

	Structure/design		**Assessment activities**	
Options	n	% of respondents	n	% of respondents
Very ineffective	0	0%	0	0%
Ineffective	2	11%	1	6%
Moderately effective	1	6%	5	28%
Effective	10	56%	8	44%
Very effective	5	28%	4	22%
Total	18	100%	18	100%

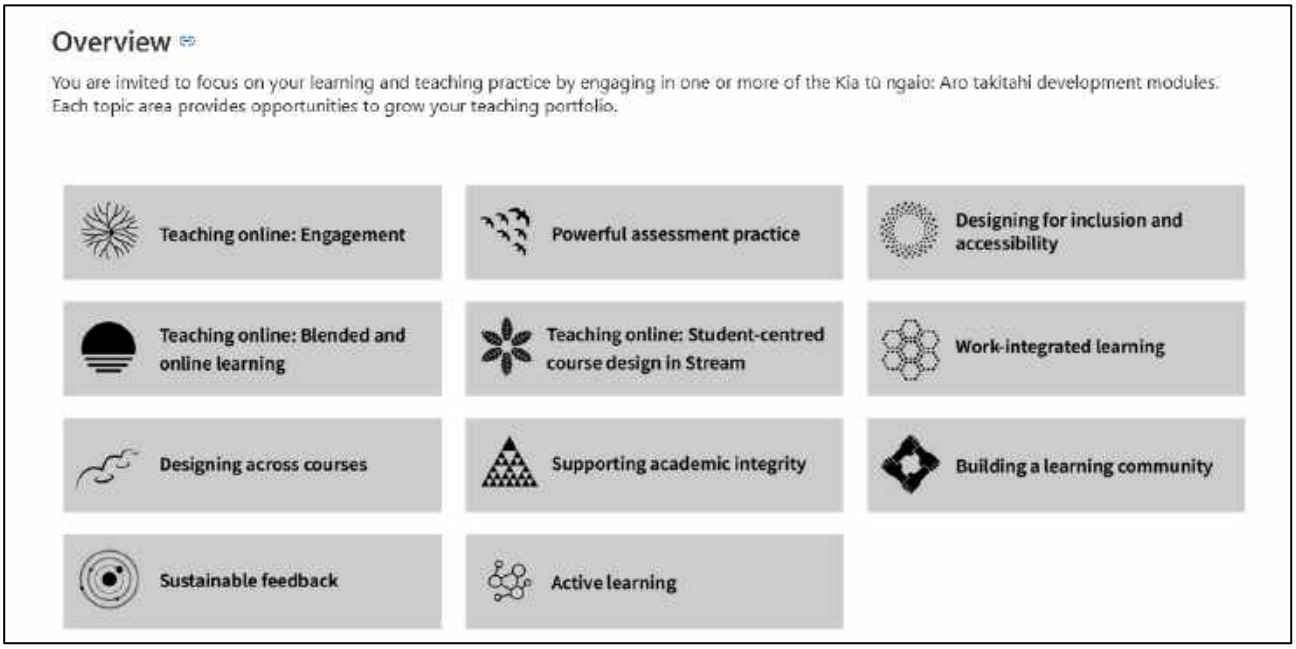
In addition, 77% of respondents indicated that the change in their teaching practice was moderate to complete (see Table 2).

Table 2: Scope of teaching change after completing the course

Options	n	% of respondents
Not at all	1	6%
Slightly	3	18%
Moderately	8	47%
Significantly	3	18%
Completely	2	12%
Total	17	100%

Stage two, which is about to be launched, is Kia tū ngaio: Aro Takitahi | Teaching development modules. There are a number of topics staff can choose in this series (see Figure 2).

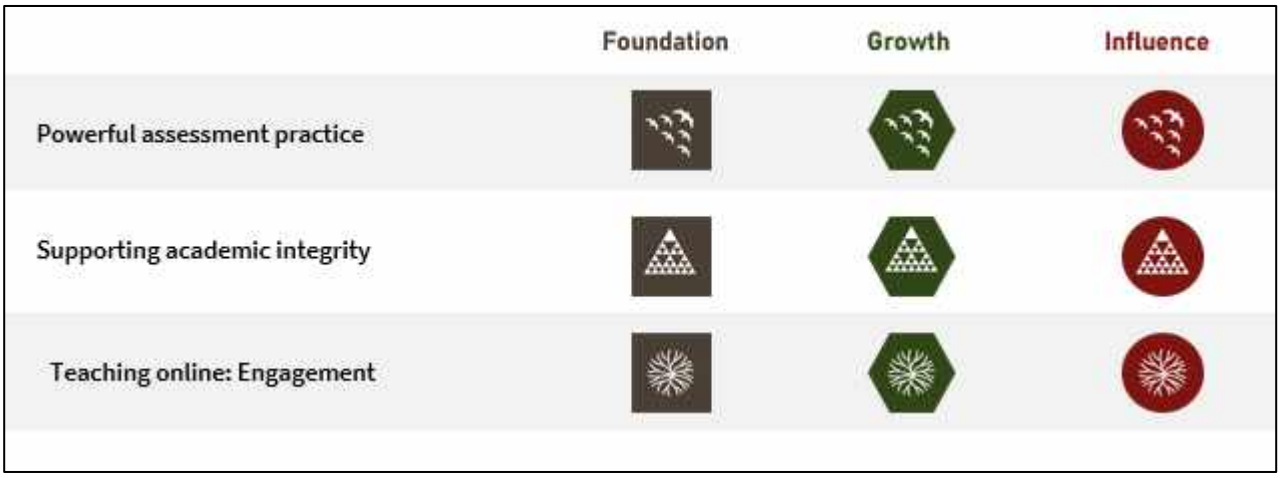
Figure 2: Kia tū ngaio Kia tū ngaio: Aro Takitahi | Self-directed teaching development modules



Aro takitahi is part of a pathway that supports academic staff evidencing their practice and growth through the development of a teaching portfolio. Each of the topics offered have three badged levels (see Figure 3). Digital badging is an effective way of acknowledging staff PD (Hartnett, 2021). At each level, the teaching portfolio grows and educators have the option of progressing to the next level or changing topic. Foundation modules are structured and introduce the essentials of the topic. Participants are guided to pick and choose which parts of the module are most relevant to them and focus on those to include in the portfolio. Growth modules hand the reigns to the educator to select their portfolio task and let that lead them to resources both inside and outside the module to extend their practice. At Influence level, the

participant is responsible for crafting their own task and sharing it with their community. The community interaction might be in the form of shared practice, a discussion starter or exploration of an issue with one of the university communities of practice or groups of teachers within their programme, school or college. After a level is completed and added to their portfolio, they receive a badge and the next level of the same topic automatically opens.

Figure 3: Example digital badges awarded in Kia tū ngaio aro takitahi



The learning journey doesn't stop at the gaining of badges. Evidence collected in teaching portfolios as part of these pathways can be used by staff as the basis for teaching awards, promotion applications, individual PD plans including conversations with line managers about future teaching PD, research and as prerequisite requirements for entering Advance HE pathway courses offered by Massey.

Discussion and conclusion

The work described above presents a solution to the increasing need for flexible, personalised staff PD that is sustainable and scalable within a resource constrained environment. The role of TA staff has shifted from being primarily focused on the delivery of workshops to one of planning, advising and intentional facilitation (Knight, 2019). The development pathway has been designed in such a way that additional modules can be added based on emerging needs which can be scheduled into the regular, ongoing work of the CET.

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Curriculum Redesign and Mapping: Applying the ASMAR Framework

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Abstract

In the dynamic landscape of Higher Education, curriculum content redesign is an essential and ongoing process that ensures the relevance, rigor, and quality in academic programs. Regularly revisiting and revising curricula content allows institutions to stay aligned with the evolving demands of the workforce, emerging technological advancements, and the ever-changing needs of society. By systematically assessing and updating curriculum, educators can introduce new skills critical for students' success while eliminating outdated or redundant material. This iterative approach to curriculum development not only fosters a more engaging and effective learning experience but also upholds quality assurance standards. Implementing frameworks like ASMAR enables lecturers to critically evaluate and enhance their teaching models, ensuring that educational offerings remain comprehensive, relevant, and impactful.

In this presentation, the authors will share the newly developed ASMAR Framework and its implementation at an international university. We will discuss the practical steps taken, challenges encountered, and successes achieved in applying this framework. Attendees will gain insights into the benefits of frequent curriculum content redesign and learn how to apply the ASMAR Framework in their own institutions to potentially enhance the quality and relevance of their academic programs.

By embracing frequent curriculum redesign, institutions can enhance their educational offerings and better prepare students for the challenges of the modern world.

Keywords: ASMAR-framework; Curriculum Mapping; Curriculum Redesign; Graduate attributes; Quality Assurance.

Introduction

Let’s face it: ‘Curriculum redesign’ is not a sexy word. In our experience as academics and faculty developers, we've noticed that many faculty members are not exactly thrilled at the prospect of spending their 'down time' between semesters revamping their courses. This lack of enthusiasm is especially pronounced in a 'publish or perish' culture, where research outputs often overshadow teaching-related activities or educational research.

Looking back to when we began our teaching journey (in the previous century!), the landscape was quite different. As novice lecturers, we often inherited syllabi from our predecessors, typically aligned with the content of a textbook provided by a publishing house. Updating the curriculum was often a matter of ensuring that the syllabus' page numbers and topics corresponded with the latest edition of the textbook. I still vividly recall the sheer horror when new textbook editions were pending, leaving students unable to access the new material, while we had already made updates to the syllabus and study guides.

As technology advanced, we began incorporating journal articles into our courses, which was both exciting and cumbersome. The process involved physically visiting the library, locating the journals on the shelves, scanning the indexes, and photocopying relevant articles to review at home and selecting the appropriate ones. This list was then (once a year) approved by the institution's curriculum committee – and only then was it added to the curriculum. Students had to visit the library and find the articles using a paper-based archivists drawer chest with little index-cards. Figure 1 captures this antiquated system - an image that evokes a sense of nostalgia mixed with relief that those days are behind us.

Figure 1: Antique library archivists drawer chest (created using COPILOT's Designer, powered by DALL-E.3)

This was a space in time before the World-Wide-Web (WWW), Google, ChatGPT, or Perplexity existed. It is not hard to imagine how time-consuming this was – although one did save time because there was no YouTube cat-videos to distract.

The advent of the World-Wide-Web transformed how we accessed and included content in our courses. Suddenly, a wealth of information was at our fingertips. With just a few clicks, we could easily supplement our curricula with the latest articles and resources. However, this ease of access also led to a new problem: content overload. It became all too tempting to add more and more content without removing outdated material, resulting in syllabi that were unwieldy and overwhelming for students.

Practice under scrutiny

As we began the process of updating and eventually redesigning our own curriculum in 2022, we employed a Design-Thinking approach (Lubbe, Adam, & Cordier, 2023) alongside an Action-mapping process (Politis & Lubbe, 2024). While these methods were effective as initial steps, we found that we needed a more comprehensive solution. This realization prompted us to develop the ASMAR Framework (Lubbe, 2024), a structured tool aimed at providing clearer guidance in the process of curriculum content redesign.

The ASMAR Framework (Figure 2) categorizes curriculum content and skills into five distinct areas: Adequate, Superficial, Misaligned/Placement, Absent/Missing, and Redundant. This structured approach provides a comprehensive method for identifying well-addressed areas in the curriculum, those requiring deeper focus, skills that need earlier integration, new competencies to incorporate, and outdated content to remove. Such a detailed analysis is

crucial for maintaining a curriculum that meets current educational standards and anticipates future trends and needs.

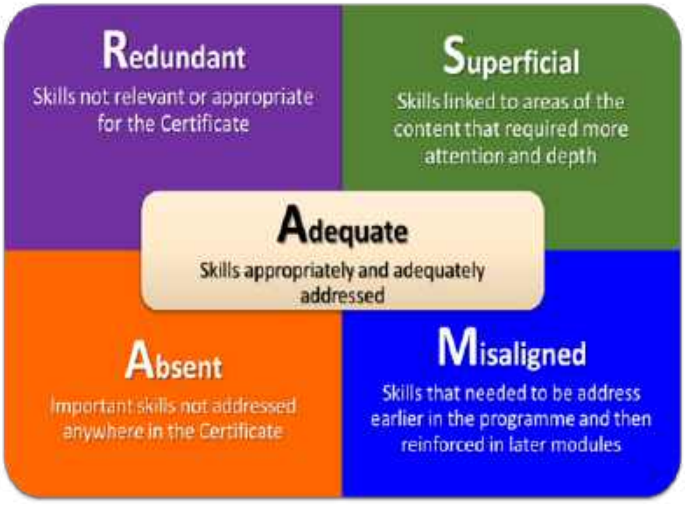

Figure 2: ASMAR-framework (Lubbe & Politis, 2024)

Using our own newly developed "Certificate in Teaching in Higher Education" (CEU, 2024), the five categories of the ASMAR-framework are contextualised in Table 1.

Table 1: ASMAR Framework explained

Area	Explanation	Contextual Example
Adequate	Skills that are appropriately and adequately addressed	Creating a lesson plan and delivering a teaching session
Superficial	Skills or content areas requiring more attention and depth	Designing a comprehensive teaching session from ideation to delivering
Misaligned / Placement	Skills that needed to be addressed earlier in the curriculum, allowing for scaffolding	Creating a teaching philosophy expected in the final module but not introduced earlier
Absent / Missing	New skills not previously addressed in the curriculum	Becoming a reflective practitioner, which was omitted despite expectations for reflection throughout the program
Redundant	Content that is no longer relevant or appropriate	Outdated reading

One of the key benefits of frequent curriculum redesign is the ability to keep pace with the rapid advancements in technology and the shifting paradigms of the professional world. For example, as new industries emerge and existing ones evolve, the skill sets required by graduates also change. A curriculum that is regularly reviewed and updated can adapt to these changes, ensuring that students are equipped with relevant knowledge and competencies. Additionally, this proactive approach helps in addressing gaps in the

curriculum where important skills may have been previously overlooked, such as critical thinking, digital literacy, and interdisciplinary collaboration.

Moreover, the iterative process of curriculum redesign aligns with the principles of quality assurance in education. By continuously monitoring and evaluating the effectiveness of the curriculum, institutions can implement improvements that enhance student learning outcomes and overall program effectiveness. The ASMAR Framework facilitates this by providing clear criteria. This maintains high academic standards and promotes a culture of continuous improvement within the institution.

Discussion and Conclusion

The ASMAR Framework's value is evident in its application across several key areas:

Curriculum Mapping and Alignment: The framework helps identify gaps, redundancies, and areas for improvement within the curriculum.

Continuous Improvement Cycle: Curriculum redesign should be treated as an ongoing, cyclical process rather than a one-time event. The ASMAR Framework promotes continuous improvement by providing categories for easy content evaluation (relevance).

Interdisciplinary Integration: The framework can also facilitate interdisciplinary integration, identifying cross-disciplinary connections and opportunities for collaboration. This approach fosters a more holistic and integrated learning experience for students.

Challenges and Best Practices: Potential challenges in curriculum redesign include resource constraints, and logistical complexities. Drawing from our experience with the ASMAR Framework, mapping the resources provide an overview of available resources, but also those that are lacking.

In conclusion, curriculum redesign is a vital practice in Higher Education, driven by the need to stay current with evolving educational demands and to uphold quality standards. The ASMAR Framework offers a systematic and effective approach to this process, ensuring that curricula remain relevant, comprehensive, and aligned with the future needs of students and society. By embracing frequent curriculum redesign, institutions can enhance their educational offerings and better prepare students for the challenges of the modern world.

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Fostering Social Presence in Online Learning: Lessons from Lincoln University's Video Integration Strategies

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Abstract

Video in online courses has emerged as a popular approach to enhance social presence, fostering a sense of connection and community among participants. This paper examines Lincoln University's deliberate integration of video to foster social presence, showcasing specific examples from recently developed online courses and offering practical insights for educators and institutions aiming to create engaging virtual learning environments.

Introduction - The Lincoln Way

Known for its focus on land-based studies, Lincoln University fosters a cohesive community of learners through a practical, 'down-to-earth' approach to teaching, often referred to as ‘the Lincoln way.' With relatively small class sizes, Lincoln University enhances social cohesion among students and increases opportunities for student-lecturer interactions. As such students and their lecturers are often on a first name basis as they go through their studies. The courses at the University also centre around the campus environment, described as a 'living laboratory,' where students have access to vineyards, orchards, brewery, dairy farm, and various research landscapes. This reflects Lincoln University's overall approach to integrating studies with real environments and fostering small group learning opportunities.

In 2020, Lincoln University looked to broaden its delivery to include asynchronous online courses, transitioning some programs from its traditional face-to-face delivery model. The goal was to replicate the sense of belonging and connection students feel to the institution and to their courses, while also ensuring that online students got the best online learning experience possible.

Social Presence and online learning at Lincoln University

Social presence, first proposed by Short, Williams, & Christie (1976), refers to the visibility and interaction of other people in mediated communication. And subsequent studies by Walther (1992), Rice (1993), and Biocca, Harms, & Burgoon, (2003) expanded on this definition with consideration of its importance in virtual environments. In online learning, Sung and Mayer (2012) further identified the value of social presence and that it can be made up of a number of social elements including social respect, social sharing, open-mindedness, social identity, and intimacy. To this end, social presence was highlighted as an important consideration in Lincoln University's online course design as it aligns well with ‘the lincoln way’, and with the goal of enhancing students' sense of belonging and socialization to the online learning environment.

Video Integration Strategies

One effective strategy to achieve this was the use of video in online courses. Videos serve to humanize the online experience, enabling lecturers to convey emotions, gestures, and nonverbal cues that can foster rapport and connection with students. Presenting a positive lecturer in videos can also trigger learners' social responses, motivating them to pay more attention to key information and improving their learning experience and satisfaction (Lawson, Bodle, Houde, & Mayer 2021,; Mayer, 2020). The accessibility and flexibility of video content enable students to engage with course materials at their own pace while maintaining a sense of social connection with lecturers, peers, and the course as a whole (Borup, West, & Graham, 2012). Lincoln University's approach to enhancing social presence through video is informed by these perspectives and aims to create a more comfortable, engaging and supportive online learning environment.

Practical Implementation

The overall design philosophy for online courses at Lincoln University is boiled down to a simple expectation, that all courses are "Casual, Friendly, and Human." This philosophy is characterised through the following guiding principles for creating videos:

Real People: at least a half-body view, use of backstories, use real experiences.

Real World: real pictures and natural production. Video in real locations where possible

Casual and Friendly: smiles and gestures, use ‘campfire talk’.

First-Person Point of View: eyeline, Inclusive language (“I”, “we”, “you will…”).

Consistency for Familiarity: consistent basic video structure and editing, videos in the same place across all courses

Clear Audio: Prioritizing quality audio.

The design of every online course includes the following videos:

Lecturer introduction, (my journey, my likes, my interests)

Course welcome (welcome to the course, what we will do in this course, what to expect, how we will meet)

Module introduction (welcome to the module, synopsis of the module, call to action or interesting point)

Content (information presentation with ‘character’, express your interest in the topic, “why I like it…” Why is it important)

Weekly announcements (whats coming up next.., broad assessment feedback, look what I found…)

Video exemplars for student-made videos, such as student introductions and video presentations,

Do Lincoln University online students feel connected to their courses?

We asked this question of our online students and canvased how well they felt they knew the lecturer, felt part of the course and whether the course encouraged them to participate.

The summary of Student feedback indicated the following:

- Videos featuring real people were more engaging, reduced anxiety, and motivated students to communicate with the lecturer.
- The course materials were interesting because they looked genuine and used real environments
- Students appreciated seeing the enthusiasm of lecturers in the videos and found it easier to connect with the lecturers as a result
- Students felt they knew the expectations of the course better when explained by the lecturer in the videos rather than just reading the text instructions.
- Students felt more connected with their peers in those courses that required students to make video introductions.
- Students overall felt they 'belonged to a community' and were comfortable engaging with the course because the videos made them feel welcome
- Students felt they knew who the lecturer was even before the first module of the course.

Discussion and Conclusion

The key outcomes of this practice was to foster social presence in online courses that represent the same sense of belonging and connection with face-to-face courses at Lincoln University. The use of a design philosophy emphasizing casual, friendly, and human elements in video was primary for creating a connection for students. However the means to do so requires some planning and some considerations. We learned the following on our journey to making videos for online courses:

- Provide script templates and use an autocue if possible. While some people are natural speakers on camera, a script helps keep on track.
- Orient lecturers to the purpose of each video and provide exemplars.
- Encourage natural and real presentation styles, allowing for practice and accepting that retakes are okay. Its better to be human than to be perfect.
- Prioritize audio quality by avoiding laptop audio capture and using DeadCats and wireless lapel mics.
- Guide and help lecturers with their setup for making videos themselves, providing good quality lend gear if possible.
- In-studio production is ok, but make the most of natural settings and lighting.
- Be mobile-minded with your gear if you want to capture the real world
- Plan for large storage for editing and archiving, and have a good infrastructure for video transfer.
- Basic video capture gear is sufficient (e.g., DSLR camera, lapel mic, tripod, GoPro for action shots).

Challenges and Future Directions

There are a few challenges and points to consider if you are thinking of using video in the same way in online courses:

- Committing to using videos in courses means committing to keeping them up to date and maintaining continuity. Plan to review and update videos regularly.
- Using real people in videos means creating new videos when people leave.
- Future-proof videos where possible by avoiding dates and referencing significant events.
- For accessibility, consider using a captioning service if making many videos.
- Developing video skills takes time, but the goal is to make video creation a routine teaching skill.
- AI made video – will it be real enough?

In conclusion, Lincoln University's integration of video in online courses offers valuable lessons for fostering social presence. By integrating human connection and socialization with video creation, institutions can create more effective and satisfying online learning experiences.

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Immersive Experiences for Online Learning: Integrating 360° Media with Embedded Videos, and Text Resources

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Abstract

Integrating 360-degree media with spatially located resources in online education can offer students authentic real-world learning experiences. This paper explores how Lincoln University has incorporated these immersive elements into their online courses, highlighting examples from recent courses and sharing insights from students. By using Articulate Storyline, 360-degree media, embedded videos, and spatially located text/audio resources, a dynamic learning environment is created. This environment fosters diverse perspectives, a heightened sense of presence, and authenticity, allowing students to take virtual field trips. The integration of these technologies enhances the educational experience for students and offers practical implications for other educational institutions.

Introduction

Immersive technology is changing the way educational experiences are delivered. Among these technologies, 360-degree media and spatially located resources are especially effective for providing students with real-world experiences, even online. This practice paper looks at Lincoln University's use of these elements in their online courses, discussing the benefits and implications for online education.

The Role of 360-Degree Media in Online Education

360-degree media allows for the simulation of real-world environments and situations in a virtual setting. Integrating 360-degree images and videos into online courses enables students to explore subjects from multiple perspectives, increasing their sense of presence and engagement. Lee and Wong (2020) found that immersive media in education can significantly boost students' motivation and interest in the subject.

Integration at Lincoln University

Lincoln University uses Articulate Storyline 360 to combine 360-degree media with embedded videos and spatially located text/audio resources in their online courses. This creates a dynamic, interactive learning environment where students can explore and engage with course content in more meaningful ways. Especially with environments and situations that are not available to experience in-person as an online student. 360 degree pictures are used within a top-down map of an area which offers students a choice of which environment they wish to view. Within each 360 degree ‘scene’ students can look around the space and selectively engage with embedded materials (videos, text, audio) that are situated within the context of the environment being viewed. A number of 360 degree ‘scenes’ can be linked

together to create a journey through an environment that simulates a ‘walk through’ experience. These can be embedded into an LMS page as a Scorm package.

Examples of Integration

In an online environmental science course at Lincoln University, students take virtual field trips to various ecosystems. Using 360-degree learning environments, they can explore different landscapes and features in detail. Expert video and audio commentary embedded in the 360 scenes provides additional insights, while spatially located text resources offer contextual information to deepen their understanding.

Student Insights and Practical Implications

Students' feedback on these immersive courses has been positive. Many reported feeling more engaged and motivated to learn because of the interactive and realistic nature of the 360-degree media. This aligns with Mayer's (2019) findings on the importance of multimedia elements in enhancing learning outcomes. Integrating 360-degree media and spatially located resources not only improves student engagement but also offers practical benefits for institutions. Virtual field trips can overcome barriers related to environmental or accessibility issues that often limit physical field trips. This approach allows access to high-quality educational experiences, making them available to a broader audience.

Promoting Interactivity and Engagement

One of the key benefits of using 360-degree media in online education is the promotion of content interactivity. Allowing students to navigate and interact within the media fosters curiosity and encourages deeper exploration of the content. Chi and Wylie (2014) support this active learning approach, highlighting the benefits of interactive learning activities in promoting better comprehension and retention.

Conclusion

Integrating 360-degree media with embedded videos and text resources in online courses offers significant potential for creating authentic and impactful learning experiences. While these virtual experiences may not fully replicate physical ones, they provide valuable and engaging opportunities that enriches students' educational experiences. Lincoln University's approach serves as a potential model for other institutions aiming to enhance their online education offerings through immersive technologies.

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Insight into the challenges of implementing e-Proctoring exams at a regional university during COVID-19

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Abstract

COVID-19 pandemic has had a profound effect on the global education sector, requiring universities to quickly modify their pedagogical approaches. Even though the virus arrived later in the South Pacific, the effects were still rather severe. Lockdowns that were imposed throughout the region made it difficult for people to travel and conduct traditional in-person education, which led colleges to adopt alternate teaching strategies.

During this period, the University of the South Pacific (USP), a regional university with its main campus situated in Fiji, encountered difficulties. USP had to quickly deploy Emergency Remote Teaching (ERT) across its 14 scattered campuses due to the unexpected lockdowns. All institutions faced inherent challenges with ERT, but USP's regional organisation created additional complications. Campus-to-campus geographical separations, differences in on-site support systems, and regional variations in internet connectivity all contributed to a great deal of stress for the university's personnel, administration, and student body. Travel limitations made things much more difficult by making it impossible for USP faculty members to give in-person lectures at nearby campuses.

USP used a combination of their current Learning Management System (LMS), Moodle, and easily accessible online tools like BigBlueButton (BBB) or Zoom to address these issues. Since 2006, the university has been using Moodle to ensure that all courses have dedicated online spaces. Moodle was already a well-known learning management system among USP academics. During the lockdowns in 2021 and 2022, USP moved all face-to-face (F2F) classes online, greatly reducing disruptions due to this prior familiarity.

The introduction of online tests represented a significant modification. USP implemented Proctorio, an e-proctoring programme, to make sure that accreditation standards for courses that typically required exams were met (Hussein & Yusuf, 2021). This change required more work than just transferring lectures and course materials to the internet. To guarantee the seamless operation of e-proctored online tests, USP conducted training sessions, stringent testing procedures, and a trial programme for the Proctorio system. To integrate the new assessment system, the university's LMS was also modified, improving user experience and navigation for both teachers and students.

This paper explores USP's ERT experiences during the COVID-19 lockdowns. It focuses on the steps involved in implementing e-proctored online exams, including training programs and testing protocols. The LMS changes made to accommodate the new online assessment method are examined in this research. It also looks at the challenges and successes USP students had when taking online tests using e-proctoring software. The purpose of this study is to provide important insights into the special difficulties and effective adjustments that a regional institution experienced during a worldwide pandemic by looking at these elements, especially in relation to upholding academic integrity through online examinations.

Introduction

The global Covid-19 pandemic imposed an unparalleled shift to online learning, described as "Emergency Remote Teaching" (ERT) (Hussein et al., 2020; Mishra et al., 2020). The University of the South Pacific (USP), serving 12 island nations, faced unique challenges due to the geographical dispersion of its student body and varying levels of internet access. This transition emphasised the need for reliable and secure assessment methods, prompting the adoption of e-Proctoring technologies to ensure the integrity of online examinations (Hussein & Yusuf, 2021).

e-Proctoring uses artificial intelligence to monitor students during exams, offers a solution for maintaining academic standards in remote settings. Proctorio was chosen as the platform at USP, and provides various features, including identity verification, behaviour monitoring, and secure browser capabilities, to prevent cheating (Chand & Hussein, 2022). The implementation of e-Proctoring at USP was driven by the need to maintain high standards of academic integrity across a diverse and technologically varied student population. While e-Proctoring has been widely implemented in other educational institutions, USP's unique geographical and logistical challenges required a tailored approach.

The existing literature underscores both the benefits and potential drawbacks of e-Proctoring. Benefits include: the ability to conduct secure, remote assessments, ensuring fairness and academic integrity (UNESCO, 2020a). However, issues such as privacy concerns, accessibility challenges, and technical difficulties can arise, particularly in regions with limited infrastructure (UNESCO, 2020b). This paper aims to explore USP's experience with e-Proctoring, focusing on the strategies used, challenges encountered, and the overall impact on the academic community. The insights gained from this study will provide valuable guidance for other educational institutions facing similar challenges.

Practice under scrutiny

e-Proctoring implementation at USP involved several critical steps to ensure the process was as smooth as possible for all stakeholders (students and teaching staff). The selection of Proctorio was based on its comprehensive monitoring features, which include automated identity verification, behavioural tracking, and secure browsing functionalities. To facilitate a seamless transition, Centre for Flexible Learning (CFL) organised extensive training sessions for both students and teaching staff, including live Zoom sessions, detailed user guides, and a responsive technical support team (Chand & Hussein, 2022).

Mock tests and exams were conducted as part of the preparatory phase, allowing students to familiarise themselves with the e-Proctoring environment and resolve any technical issues beforehand. This trial run was crucial for identifying potential problems such as connectivity issues, which were particularly an issue for students in remote areas with limited internet access. The feedback from the mock exam highlighted the importance of having contingency plans and support systems in place to assist students experiencing technical difficulties.

During the actual exams, Proctorio's AI-driven system monitored students, flagging any behaviours that diverged from expected norms, such as looking away from the screen or engaging in unauthorised activities such as talking to someone or having more than one person on the screen. This data was then reviewed by teaching staff to determine if any cheating had occurred. While the system effectively deterred cheating and maintained the integrity of the exams, it also introduced challenges. Some students reported feeling

uncomfortable with the level of surveillance, raising concerns about privacy and the psychological impact of being monitored continuously (Hussein & Yusuf, 2021).

Despite these challenges, the overall response to e-Proctoring was very positive. Most students and teaching staff appreciated the system's ability to uphold academic integrity, although the experience underscored the need for ongoing support and clear communication to address any concerns and ensure a fair testing environment.

Discussion and conclusion

Implementation of e-Proctoring at USP at the peak of COVID-19 pandemic highlighted several key outcomes and challenges, which can be categorised into maintaining academic integrity, addressing technical and logistical challenges, managing privacy and ethical considerations, and supporting the adaptation of students and teaching staff.

Maintaining academic integrity in the absence of conventional in-person exams was the main goal of e-Proctoring. The use of Proctorio provided a controlled and secure environment, deterring cheating through its comprehensive monitoring capabilities. The AI-driven system flagged unusual behaviours, allowing teaching staff to review and address potential issues. This feature was particularly valuable in maintaining the credibility of assessments and ensuring that all students were evaluated fairly, regardless of their location (Hussein et al., 2020; Mishra et al., 2020). Teacher’s feedback indicated a high level of trust in the system's ability to uphold academic standards, a crucial factor in maintaining institutional credibility.

There were difficulties in deploying e-Proctoring at USP, mainly in terms of technological and administrative concerns. Internet connectivity problems were a significant concern, especially for students in remote areas with limited or unstable internet access. These issues not only impacted the stability of the Proctorio system, but also added to student anxiety, as they feared disconnections could affect their performance and the validity of their exam results. To mitigate these concerns, CFL provided additional technical support and resources, such as guidelines for troubleshooting common issues and a helpline for real-time assistance on Zoom. However, these measures highlighted the broader need for improved infrastructure to support online learning and assessments, mainly in geographically distributed regions.

The use of e-Proctoring brought up significant ethical issues, mainly in relation to data security and privacy. Concerns over the possible abuse of personal data and the psychological effects of continual monitoring were raised by students and teaching staff in response to the system's usage of cameras and screen monitoring to deter cheating. To allay these worries, USP made sure Proctorio complied with stringent data protection guidelines, which included data encryption and short data retention times. In addition, the university strived to maintain open lines of communication with students and teachers on the operation of the system and the information that would be gathered and retained. Despite these assurances, the experience emphasised the need for ongoing dialogue about the ethical implications of using such technologies, particularly in terms of balancing the need for security with respect for individual privacy (Chand & Hussein, 2022).

Support for both teachers and students were critical to the implementation of e-Proctoring's success. USP's comprehensive training program, which included live demonstrations, Q&A sessions, and detailed guides, was crucial in helping both groups adapt to the new system.

Continuous support, including a dedicated technical helpdesk and online resources, was also essential in addressing any issues that arose during the exams. Student feedback indicated that while the majority felt adequately supported, there was a need for more targeted assistance for those with limited technical skills or access to reliable technology. This experience highlighted the importance of providing comprehensive, ongoing support to ensure a smooth transition to new technologies (Hussein & Yusuf, 2021).

In conclusion, the deployment of e-Proctoring at USP during the height of the COVID-19 epidemic showed that technology can successfully maintain academic integrity in distant assessments with careful planning and strong support systems. However, the experience also highlighted several areas for improvement, particularly in addressing technical and ethical challenges. Future implementations should prioritise enhancing infrastructure to ensure equitable access, providing comprehensive support, and training, and addressing privacy concerns to build trust among students and teaching staff. The lessons learned from USP's experience can serve as valuable guidance for other institutions considering the use of e-Proctoring technologies, particularly in regions with similar challenges.

Take Home Message

The implementation of e-Proctoring at USP highlights the critical role of technology in maintaining academic integrity in remote assessments. Key lessons include:

i. The importance of robust technical infrastructure.
ii. Comprehensive training and training plans.
iii. Transparent communication regarding data privacy.

While e-Proctoring effectively prevents academic misconduct, institutions must address the ethical and technical challenges it presents. Ensuring equitable access to necessary resources and maintaining an open discussion about privacy concerns are essential for fostering trust and ensuring a positive experience for all users. The insights gained from USP's experience provide a roadmap for other educational institutions navigating similar transitions to online learning and assessment.

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Proctorio Inc. - https://proctorio.com/

Integrating LEGO® SERIOUS PLAY® into Adult Learning

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Abstract

Lego® is a product that has been used widely in contexts beyond its original intent as a toy. The principles of LEGO® SERIOUS PLAY®, originally created as a commercial consulting process using dedicated Lego brick sets, have been available in a simplified open-source format since 2010. Despite its commercial origins, its means of expression and collaborative potential can be valuable in teaching and experiential learning. Emphasising metaphor over literal representation, it can represent all kinds of experiences, feelings, and responses. It is a process where everyone builds, and everyone discusses.

The workshop that is the focus of this article grew out of the regular integration of Lego activities into postgraduate courses. Having gained some experience and insights into using Lego as a means of constructionist learning through delivering a range of activities, we have recently explored a more formalised approach to using Lego in learning by adopting and adapting LEGO® SERIOUS PLAY®. Therefore, although this is a discussion paper and not an empirical study, there was an informal question behind it: Can the principles of LEGO® SERIOUS PLAY® improve the structure and delivery of workshops using Lego?

The chosen context of the study was a workshop that served as an introduction to wicked problems, which were then addressed through a mess mapping process based on Megatrend Mashup Cards. We explored how LEGO® SERIOUS PLAY® could be introduced into this workshop. In the design process, we followed the principles of the method as closely as possible while applying it to a context that was very different from the examples and activities suggested in the open-source materials. We adapted the ideas in various ways, including the use of other materials (paper and pens, game cards) in addition to Lego. We also included further steps to capture learning and encourage abstract thinking.

We discuss the rationale for our adaptations to the method while maintaining its principles, and how mess mapping and the Megatrend Mashup Cards were integrated into a learning activity. We conclude with reflections on how our workshop compares to the standard method and identify its benefits.

Introduction

Lego provides a means of expression and collaboration for experiential learning (Said et al., 2001). It has been used for learning about control systems (McGookin & Gawthrop, 2004), assisting those with autism (Legoff & Sherman, 2006), teaching agile software development methods (Krivitsky, 2017), and exploring the Cynefin framework (agile42, n.d.), among other examples. However, we have recently considered whether a more structured and formalised approach to Lego in learning would be beneficial, so we have adopted LEGO® SERIOUS PLAY® (hereafter referred to as ‘Lego Serious Play’).

The principles of Lego Serious Play began as a commercial consulting process but are now open source (Lego Group, 2010). Although its focus still reflects its business and consultancy

roots, it “can be used to represent all kinds of experiences and feelings, and responses to things” (Gauntlett, 2015, p. 5). Perhaps the most important aspect of this approach is that the built artefacts are not representational, but metaphorical.

To experiment with the method, we addressed a learning topic that has proved challenging to deliver - an introduction to wicked problems and mess mapping. The complex systems involved in wicked problems are an ideal focus for serious play, where the process builds towards creating system models to understand their forces, dynamics, and impacts (Isaac, 2023).

After observing a Lego Serious Play session at another institution and building on the educational case studies outlined by Isaac (2023), we looked at how educators have adapted the original business-oriented method, for example by breaking up the recommended day-long sessions to fit an educational timetable. We also looked at the suggested tools - specific and expensive brick sets and connectors, and the reliance on only using the bricks in these sessions (although sticky notes are often used by others in practice). Collaborative builds are normally done using Lego base plates. We tried a different approach using large sheets of paper for information and organisation and brought in other activity support materials by using the Megatrend Mashup Cards (DIA, 2021), but ensuring that we still adhered to the principles of the method.

Practice under scrutiny

We adapted the three phases of Lego Serious Play: Challenge, Build, Share - as outlined below.

Step 1: The Challenge

The first step in the process is to connect to what is to be explored, and to understand the context and meaning, so the session begins with an exploration of wicked problems. To structure the activity, we use the 18 wicked problems included in the Megatrend Mashup Cards (DIA, 2021).

Lego Serious Play is commonly deployed in business situations where the context is shared by participants, with the assumption that the knowledge is already in the room. However, our students, randomly assigned into groups from diverse disciplines, do not have a common problem or shared understanding. Introducing the Megatrend Mashup Cards provides this common starting point around which individuals can anchor their knowledge. A randomised process assigns one of the 18 problems to each group. These include ‘Low democratic engagement’, ‘Social Inequality’, and ‘Transport Capability’, each pervasive enough to assume individuals have a basic understanding of the problem upon which to build.

Step 2: The Build

The second step is to create a product connected to ‘targets of exploration involving participants' own knowledge, reflections, and creative skills’ (Lego Group, 2010, p. 14).

This is where we introduce the concept of mess mapping, defined as “a common mental model of the problem at hand that shows the important ‘chunks’ of information and their relationships with other ‘chunks’” (Weber, 2007, para 2). By chunking the wicked problem into meaningful groupings such as organisations/sectors, problems (as seen by organisations/sectors), causes of problems (linked to problems), sources of problems (from other organisations/sectors), and data, we set the scene for collaborative exploration.

We then introduce Lego with individual builds, where each group member creates models of relevant organisations/sectors for their Megatrend Mashup wicked problem. These models are then discussed within and across the groups. Then, in a group build, participants create models of problems related to their wicked problem, placing them by the relevant organisation/sector models on a large sheet of paper. Following the mess mapping process, participants add collaborative notation, capturing causes, sources, data, and connections. The addition of paper and pens, and the ability to draw free-flowing insights, adds another dimension of connection and possibility that improves communication over the usual approach of using Lego connectors that lack semantics.

The final component introduced to the activity is the Megatrend Mashup technologies. Each group selects two or three megatrends to consider how the trend mashup might be applied to different chunks of their wicked problem. Groups are given a set time to build Lego models to represent each of these applications of technology to their wicked problem.

Step 3: The Share

The third step is to encourage students to reflect on what they have created and become aware of the insights gained. At various points throughout the process outlined above participants share the thinking behind their builds with others in their group, contributing not just the artefact to the collective effort but also the knowledge, reasoning, and reflection behind it. At the end, all groups share their work. This adds to the groups’ collective wisdom while helping individuals clarify their own understanding of the process.

Discussion and Conclusion

The final output, enriched by the stories, experiences, and reflections shared throughout the process, demonstrates the value of a tactile approach coupled with a reflective process to explore complex problems. Participants gain a deeper understanding of system complexity, the ability to break down complex problems, the benefits of a collaborative approach, and the importance of focusing on process over outcome to unlock knowledge. All of these provide valuable insights for participants to take forward into their postgraduate studies, where they will inevitably encounter complex problems or systems in their areas of research.

Many educators use Lego in their practice but have not necessarily applied the methods of Lego Serious Play. This practice paper has outlined an approach that may encourage more to do so, since it provides alternatives to the standard practice that assumes very small groups, requires the participants to have a shared problem context, and relies on complex (and expensive) Lego sets to capture all the ideas without additional materials. Using support materials, pens and paper for collaborative builds, and structured group feedback, this approach broadens the application space of the method.

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Is this the beginning of a beautiful friendship? Constructive alignment and artificial intelligence

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Abstract

This practice paper is an emerging exploration of the connections between the guiding principle of constructive alignment and the uses of artificial intelligence. Our practice is situated in an Open, Distance and Flexible Learning (ODFL) environment, more specifically in the Open Polytechnic of New Zealand | Kuratini Tuwhera o Aotearoa context.

Large language models (LLMs) have been increasingly embraced by the learning design community for design and development (Davis & Lee, 2024), and at Open Polytechnic, we internally developed Course-o-Matic, a secure Application Programming Interface (API) that interacts with the OpenAI models. Our research investigates whether, based on the guiding principles of constructive alignment theory, we could use Course-o-Matic to assess the alignment between intended learning outcomes and learning activities.

Our methodology involves investigating different prompting strategies, writing prompts that could allow us to assess the constructive alignment, trialling the prompts using Course-o-Matic 3000 and comparing the results from the different prompts with our own observations about the courses.

Our results demonstrated that, regardless of the prompting strategy used, AI has the potential to support initial observations about alignment of courseware and provide helpful insights. However, prompts require carefully phrased constraints to ensure AI remains focused on alignment and identifies gaps appropriately. We also found that AI may struggle to adapt its responses to the OFDL context.

Introduction

The ripple effects of the rise of new LLMs have been felt in education and are echoed in several events and journal editions reflecting on the impacts of AI on learners, learning designers and faculty. Open Polytechnic has welcomed experiments using generative AI to review, rethink and improve our processes. However, following the tendency of other learning designers in the field (Hardman, 2014), Course-o-Matic 3000 has been mainly used to support course design and development.

The uses and development of AI in learning design have also been largely disconnected from educational theory (Luckin & Cukurova, 2019). This is problematic as the focus towards AI-enhanced productivity could cloud or minimise the importance of pedagogical principles.

Constructive alignment, alongside other pedagogical principles, guides the design and development of courses at Open Polytechnic with an intentional effort to connect learning outcomes, assessments, and learning activities (Biggs, 2014). Until recently, we have manually evaluated the constructive alignment of newly developed courses and courses

flagged for revision, but we may now be able to leverage AI to support us. This paper explores our trials of different prompting strategies using Course-o-Matic 3000 to assess constructive alignment and analyses the preliminary results.

Prompt strategies

Our courses are fully delivered online in an asynchronous modality. From the beginning of their journey, learners have access to the course content and the assessments through the learning management system (iQualify). To support our attempt to use AI to evaluate constructive alignment, we asked Course-o-Matic 3000 to compare the information in the course descriptor and the course outline from iQualify (sections, subsections and page titles) and assess the alignment. The evaluation of the alignment of the assessments was postponed to a future experiment.

We trialled different prompting strategies (context and goal oriented, eccentric prompt and AI-generated prompt)[6] in courses flagged for revision in the fields of engineering, financial services and interior décor.

Our first prompt strategy was based on presenting AI with a clear context (experienced learning designer using the guiding principle of constructive alignment), an explicit set of goals and a specific answer format (markdown formatting with bold for emphasis). We also used a 2-step approach.

> Step 1
> I would like to use your help to analyse the alignment between learning outcomes and course content. You should:
> 1) Review the course descriptor, including aim, learning outcomes and indicative content
> 2) Review the course outline
> 3) Compare and contrast the course descriptor with the course outline
> 4) Identify and list the areas of alignment between the course descriptor and the course outline
> 5) Identify and list the areas of misalignment between the course descriptor and the course outline
> Step 2
> Now that you have analysed the course descriptor and the course outline, provide suggestions for additions or improvements that could be made to the course alignment.

Our second prompt strategy involved presenting AI with an eccentric prompt. Battle and Gollapudi (2024) found that making superficial but eccentric modifications to a prompt, such as infusing it with optimism or using emotive language, can improve its efficacy. We utilised the analogy of a detective to craft our eccentric prompt.

> You are a detective trying to uncover the mystery of the misalignment between a course descriptor and a course outline.

[6] There is a growing literature about prompt literacy and prompt engineering. A few examples include Bozkurt and Sharma (2023), Eager and Brunton (2023) and Maloy and Gattupalli (2024).

First, I will share the course descriptor with you, and then I will share the course outline with you. You will use your deduction skills to identify patterns and clues that no one else can see, and then you will reveal the solution to the mystery.

We are counting on you to solve the mystery and close the case.

Our final prompt strategy involved using an iterative process with AI to create the prompt to assess the constructive alignment. The final iteration started with an explanation of the course descriptor information, an overall definition of the task connected to John Biggs's constructive alignment theory as the framework, a specific breakdown of the steps to complete the task, and a specification of the output format (summary of findings, identification of alignment issues or gaps, and recommendations for improvement).

Tasks:

1. Analyse the Course Descriptor:

• Review the course aim, learning outcomes, and indicative content.
2. Evaluate the Course Outline:
• Examine the headings and subheadings for the sections and pages of asynchronous online learning materials provided in the LMS.
3. Check for Alignment:
• Determine if the course materials and activities, as indicated by their headings and subheadings, align with the stated learning outcomes based on Biggs's theory.
• Identify any gaps or misalignments where the materials do not support the learning outcomes.
4. Provide a Summary of Findings:
• Summarise the alignment between the course materials and the learning outcomes. Highlight any alignment issues or gaps.
5. Recommendations:
• Offer specific recommendations to improve the course material to better align with the course descriptor.

Note that the course descriptor cannot be changed.

Discussion and results

Across three different disciplines (engineering, financial services and interior décor), Course-o-Matic was able to evaluate the alignment between the course descriptor and the course outline. However, the initial responses were, for the most part, overly positive, praising the alignment between the course descriptor and outline, and minimising areas of misalignment unless the AI was further questioned about gaps.

Despite this, Course-o-Matic provided evidence to substantiate our initial impressions and produced a useful and succinct summary. We also found AI to be particularly helpful in technical subjects, such as engineering, where the learning designer would have more difficulty assessing alignment without the support of subject matter experts (SMEs).

Overall, the results from each prompting strategy were similar, but the detective persona did motivate the AI tool to focus primarily on investigating misalignment, producing more focused analysis. The results also demonstrated the importance of supplying the AI tool with clear constraints. Often the AI would suggest modifying the course descriptor to align better with the course outline, which is typically not feasible.

Furthermore, the AI tool frequently exceeded its mandate, providing suggestions about teaching methods despite the focus of the prompt being constructive alignment. For example,

it recommended adding a recap and integration session and incorporating field trips to one of the courses.

This highlights a surprising limitation: AI may struggle to understand the OFDL context, favouring face-to-face learning instead. When we trialled using AI to generate the prompt, Course-o-Matic persistently mentioned course materials suited to a face-to-face context, such as lectures, even when we explained that we would be providing an outline of asynchronous online content from an LMS.

Conclusion

While perhaps not yet best friends, AI and constructive alignment can certainly get along, and we expect the relationship to blossom further. When evaluating the constructive alignment of courses, the answers from Course-o-Matic were helpful. However, the answers were not as comprehensive as initially expected, with problems such as excessive positivity and diversions from the focus of the prompt. Our experience also highlighted the need to provide specific constraints to AI and tailor prompting strategies to the ODFL context.

Finally, linking educational theory to using LLMs widens the range of possible applications for AI beyond the productivity lenses. In the future, we hope that continuing with this initiative will provide us with insights to substantiate personal observations about courses, guide conversations with faculty and SMEs and support quality assurance checks.

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Manaaki Tauira Course Enhancements Programme: Improving outcomes of minority students

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Abstract

This paper reports on a pilot study of a course enhancements programme at Lincoln University, New Zealand, designed to enhance learner success for all students, but particularly those from minority groups. The pilot study includes two phases, each of six-months duration – course redevelopment and course delivery. During the first phase, nine academics were selected to engage in self-reflection, complete a four-week online asynchronous course, develop an action plan for course redevelopment, attend a two-day in-person workshop to implement the action plan, and meet several times with an academic development facilitator. This blended approach resulted in academics experiencing a variety of in-person and online learning activities and approaches that could be used in their own courses, and the opportunity to collaborate and share their course redevelopment journey with other academics (De Silva & Rose, 2023). This paper highlights the approach taken in the pilot study as well as the evolutionary practice of phase one of the course enhancements programme having learned from the pilot cohort of academics. Increasing the flexibility in the selection criteria for the programme, as well as pathways through the programme, were key changes implemented in cohorts two and three. We will detail the learnings that led to these changes and explore other potential changes that are currently being explored.

Introduction

Regularly reviewing courses to ensure they are fit for purpose and designed with student learning outcomes in mind is becoming an increasingly important academic activity in today's ever-changing higher educational learning and teaching environment. Improvements in course design can lead to improvements in the quality of teaching, student learning experiences and student learning outcomes (Robinson et al., 2021; Ariovich & Walker, 2014; Swank & Whitton, 2019). Well-designed courses "a) consider the distinctive characteristics of the students in the course; b) have effective course design components (e.g., meaningful learning outcomes, engaging learning experiences, and authentic assessments); and c) demonstrate clear alignment between the various components of the course" (Robinson et al., 2021, p. 100).

The Maanaki Tauira Course Enhancement Programme (hereafter MT CEP) was introduced at Lincoln University in Aotearoa New Zealand as a strategy to help improve learner success of all students, and in particular those from minority student groups (i.e., those identifying as Māori, Pasifika, or disabled). It features a multi-component professional development programme delivered in a blended format that models student-centred teaching practices, and includes opportunities for academic collaboration, community of practice, and self-reflection. This paper reports on this initial pilot study of the MT CEP.

The four key identified focus areas for course redevelopment were: course design, assessment, student engagement, and course delivery. The pilot study consisted of two

phases – course redevelopment (during Semester Two, 2023) and course delivery (during Semester One, 2024). Through the first phase, participating academics reflected on their own teaching, completed a four-week online asynchronous course, highlighted the strengths and areas for improvement in their course design, and shared these with their lead programme facilitator and other participating academics. In this first phase, the nine participating academics were learners themselves as they discovered new ideas that could be used to enhance their role as a teacher and facilitator of learning. The intended outcomes of the first phase were pedagogical change, increased empathy of students, and development of leaders and change agents. The intended outcomes of the second phase are increased student success measures including pass rate, course satisfaction, and student feedback.

Practice under scrutiny

At the time of writing this paper (July 2024), we have just concluded phase two of the pilot programme, with the redeveloped courses delivered in February-June. The final stage is to complete a post-delivery review incorporating feedback from the Examiner and students. In this section, we will highlight key takeaways and lessons learned, with a focus on flexibility.

Pass rates

Pass rates, along with the number of A grades, increased in most pilot courses. The overall positive effect on pass rates is pleasing, although we acknowledge that higher pass rates do not necessarily equate to greater student learning or an enhanced course.

Course satisfaction and student feedback

Student rep feedback was positive, and we are awaiting the results of the end-of-semester course evaluation.

Course selection criteria

The original remit received was to prioritise courses where an increase in course pass and completion rates would lead to parity for Māori, Pasifika, and disabled students. Before the pilot began, we asked senior leadership for flexibility in this scope, acknowledging that this was too narrow a definition of quality teaching and successful learning. Over the course of the pilot programme, our priority course selection criteria, and how that data was communicated to faculties, improved so that all parties became comfortable with the selection criteria for courses.

Course selection process

A new cohort of courses and examiners occurs on a bi-annual basis (every semester). Thus, as we wrap up the pilot cohort, we have already launched cohorts 2 and 3.

The manner in which courses were selected for the MT CEP was revised ahead of cohort 2. Flexibility was added to this process by providing each of the three faculties at Lincoln a short

list of courses from which they needed to choose three. Their ability to choose increased buy-in and allowed faculties to better account for issues such as staff workload, planned sabbaticals, or research leave.

Additionally, we also increased flexibility in the programme by opening the 4-week course up to all academic staff within the university, even if they were not associated with one of the priority courses going through the full programme. This self-selection opportunity has resulted in 4-6 additional academics going through the 4-week course each cohort, in addition to those in the full programme. This intermingling of motivation has led to the energy of those self-selecting being somewhat infectious, giving the perception that the course is less an obligation and more an opportunity to engage with colleagues around shared challenges and areas of interest.

Two-day in-person workshop

This was envisioned as an intensive two days in which all course re-development work would be completed, or close to it. We aimed to avoid a drawn-out process of incremental change, constant follow-ups and check-ins, and potential frustration from both academics and facilitators.

This vision, however well-intentioned, was simply not flexible enough. Trying to find two full days in which nine academics were available was an impossible task. Thus, the two-day in-person workshop was paired down to a one-day in-person workshop with only half of the pilot participants attending due to pre-existing university commitments.

Ahead of the cohort 2 launch, this full-day approach was scrapped entirely and was replaced by weekly 1-hour in-person sessions during the 4-week period, thus turning the 4-week *online* course into a 4-week *blended* course.

This remains an active area of tinkering, as we still struggle with attendance at the in-person sessions. Currently under consideration is allowing faculty members to vote at the cohort launch meeting for when the in-person sessions will be held, and only open enrolment for self-selection after that decision has been made.

Designing for flexible learning

In addition to designing flexibility into our professional development programme, the result of the programme was that many courses are now more flexible for the students taking them. A third-year food safety course, for example, used to have 5 hours of in-person instruction per week. After going through the MT CEP, this course now has 3 hours of in-person instruction per week complemented by pre-recorded online lectures with self-study formative assessments.

Discussion and conclusion

One of the key challenges with professional development is evaluating the effectiveness and tracing the effects on classroom practice and student learning outcomes (Rutz et al., 2012). During the first phase of the pilot programme, participating academics were asked to complete an initial reflection on their teaching and their priority course. At the end of the second phase, a post-delivery review questionnaire was administered to identify the effects of

the MT CEP on both teaching practice and student learning outcomes. Key outcomes from the post-delivery review include:

- All academics in the pilot programme reported finding the programme helpful to improve their teaching and course delivery.
- The course changes would not have been possible without the help of the facilitators.
- Further changes, although more minor, are needed to continually improve the course.

The reality is that flexibility isn't a design feature, it is a necessity. Faculty members at Lincoln, like most universities, are not required to do any teaching professional development (discussing this is outside the scope of this paper). Teaching support staff need to identify ways to work with examiners to improve their course and their teaching that allow for flexibility and are focussed on what *can* be done, rather than what *should* be done.

The MT CEP has had a positive effect on teaching and learning at Lincoln University in Aotearoa New Zealand and will continue to evolve.

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Micro-credentials pathway for working professionals

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Abstract

Working professionals are a diverse audience, most possess a set of qualification and/or registration to practice in their field. However, as their practices evolve and technology develops, there remains a need for on-going professional capacity development. This paper examines the role micro-credentials can play in evolving the professional development practices that cater to the needs of working health professionals. Using the example of a successful 15-point micro-credential on Pacific Wellbeing, offered for the first time by the Faculty of Medical and Health Sciences (FMHS) at Waipapa Taumata Rau, The University of Auckland (UoA), this paper describes the three key pillars of any such initiative (Purpose, Partnership and Pathway), alongside future considerations for using a micro-credentials approach to upskill working health professionals.

Introduction

Micro-credentials have become more relevant post-pandemic due to learners requiring flexible, on-going options to build knowledge, skills, and stack credentials to undertake further training or gain a qualification (Ahsen et al., 2023; Brown et al., 2021; Thi Ngoc Ha et al., 2022; Tamoliune et al., 2023). The New Zealand Qualifications Authority (NZQA) defines micro-credentials as “units of learning designed to allow recognition of a discrete set of skills that meet specific learner, employer, industry, community, and iwi needs” (New Zealand Qualifications Authority, 2024, p.4). Micro-credentials were introduced into the New Zealand Qualifications and Credentials Framework (NZQCF) in 2022 as credits that can contribute towards a qualification but not of itself be an award of a qualification.

A database of registered, quality assured micro-credential offers based on the NZQCF shows a predominant uptake via Te Pūkenga (Polytech) rather than universities (Fisher & Leder, 2022). A recent maturity model by Selvaratnam et al., (2024) also highlights that despite technical infrastructure, credentialling systems and platforms being established, quality assurance, resourcing, standards, and strategy are still not as well developed in the Australasian context. However, the UoA has a micro-credential policy aligned with the NZQCF which states that “micro-credentials offered by the University, or an external institution may be recognised for the purposes of admission and/or for the award of credit into qualifications, up to a maximum of 30 points at the appropriate level of study” (UoA Micro-credential Policy, 2019).

Globally, the health sector has taken a cautionary approach to implementing micro-credentials for continuing professional development. The concerns are around quality assurance and inclusivity (Peppler-Beechey & Weingarten, 2021). However, there are examples like micro-credentials being used to “equip health professionals with knowledge of emerging digital technologies” (Ahern, Shakes & Gooding, 2024, p.54) and to develop competencies and skills through simulation-based assessment (Peisachovich et al., 2021). Lok et al., (2021, p.1) report that Pharmacists – for example – see the potential of micro-

credentials for “providing easily accessible means of skills and knowledge acquisition that fulfils the needs of their profession.”

At the UoA, the Knowledge Hub within FMHS has taken the first step to establishing a micro-credentials initiative for health professionals involved in the Pacific health workforce. The first, hybrid 15-point micro-credential has been developed for Pacific Health Navigators (PHN) in partnership with the Pacific Medical Association (PMA). This practice paper is a reflection on the journey from planning to facilitation of the micro-credential, identifying challenges and seeking solutions for collaborative action on credentialling across the higher education and health sectors in New Zealand.

Pacific Wellbeing Micro-credential

The Pacific Wellbeing micro-credential initiative aimed to address all the key challenges of the tertiary education sector – identified by NZQA – which led to the development of the NZQCF in the first place: skills mismatch, traditional tertiary policy settings not focussed on lifelong learning, inequitable educational outcomes for Pacific people, and recognition for learning not typical for training programmes.

The micro-credential “boost the skills of the many highly experienced Pacific professionals in the health and social sector” (Success for Pacific Professionals, 2024). Offered via a hybrid model, the micro-credential was accessible to a wide range of PHNs from around New Zealand, providing them an opportunity for equitable educational outcomes by recognising skills and expertise through credentialling, not typical of training programmes.

The partnership between UoA and PMA enabled an upgrade of the PMA training programme to a 15-point offer at postgraduate level. Therefore, reducing the barrier to gaining qualifications, for those who have worked in the sector but may not have had the opportunity, resources, or the skills to commit to full-time study. Aligning the credentials with the NZQCF ensured that future employers of the PHNs can trust the skills developed.

In acknowledging the success of the 38 participants who completed the micro-credential, the FMHS Associate Dean Pacific stated that the “University recognises enticing Pacific people into tertiary study means meeting the community ‘where they are’ and it was a step in the right direction” (Success for Pacific Professionals, 2024). This partnership also exemplified what Brown et al., (2021) describe as an opportunity for a higher education institution in collaboration with industry, to “harness new digital learning models beyond the pandemic” (p. 228).

Discussion and conclusion

Three key pillars of micro-credential initiative became evident through the offer of the Pacific Wellbeing micro-credential, as illustrated in Figure 1: Purpose, Partnership and Pathway.

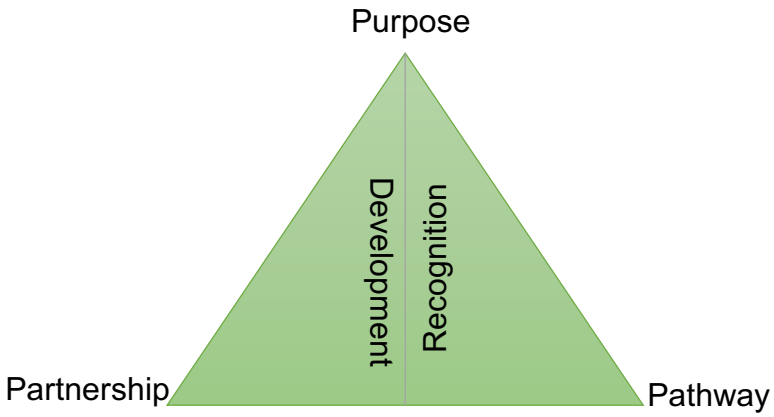

Figure 1. Key pillars of micro-credentialling initiatives

Micro-credentialling initiatives run the risk of being driven by technological solutions that identify, catalogue, and display a portfolio of credits, of which a portable digital badge is a common example (Ahsan et al., 2023). However, the technical focus is being challenged in favour of 'purpose' being the apex pillar of consideration. Experts like Brown et al. (2021) advocate for educators and policy makers to "understand the problem that micro-credentials seek to address" (p. 250) and focus on purposes like employability, life-long learning, and citizenship. The micro-credential should have value for the learner as well as the university (Desmarchelier and Cary, 2022).

As such, purpose is concerned with the need that the micro-credential will meet, as identified through relevant industry stakeholders. In the case of the Pacific Wellbeing micro-credential, the purpose was to rapidly respond to the need for PHNs to upskill and receive industry recognition for their existing or future jobs, while also earning university credits that could allow them to engage in further tertiary study, if they chose to and were eligible.

The second key pillar in the *development* phase as shown in Figure 1 is Partnership with industry. Purpose is closely aligned with Partnership. Forming strong and stable partnership with industry is important to not only support the development of the credentials but ensure that it is relevant for working professionals from the respective industries. Desmarchelier and Cary (2022) warn that establishing stable, productive partnerships is time-intensive, but the development of micro-credentials should be "led by staff with skills in leadership in learning and teaching" (p.10) rather than business partners focused on revenue generation from micro-credentials. The partnership between UoA and PMA, facilitated via the Knowledge Hub, was collegial and reciprocal, based on leading curriculum change and learning practice for on-going professional development of PHNs.

The final key pillar is Pathway: the consideration of the value proposition of the micro-credential for the working professional and their respective employer. Pathway is key to the *recognition* of the credits, and establishing one, ensures legitimacy, quality assurance and continued value of earned credentials for further education. Micro-credentials do not "stand outside of the pedagogical ethical imperative that learning experiences should be positive and inclusive" (Desmarchelier & Cary, 2022, p.1). The Pacific Wellbeing micro-credential was concerned with providing an equitable, inclusive opportunity for the PHNs to upskill, get formal recognition for their expertise and earn 15-credits at postgraduate level that could provide a pathway to a UoA postgraduate certificate qualification.

The conclusion that can be drawn from the Pacific Micro-credential experience is that if the purpose and partnership are clearly established for the development of a micro-credential for working professionals then it becomes viable to create a pathway for learners, in recognition of their prior experience and achievement through the micro-credentialled professional development. The challenge is for the tertiary institutions to collaborate with industry and each other in establishing solutions that have meaning like the Pacific Wellbeing micro-credential did.

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Professional development for teachers in virtual environments: evolving online practice

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Abstract

As online education continues to increase access to educational opportunities, the professional growth of the educators who teach in virtual environments is essential to ensure high quality and effective pedagogy. This practice paper explores the professional development tailored specifically for teachers in virtual learning network school environments delivered through a Network of Expertise (NEX). It outlines the challenges, strategies, and practices to enhance teaching practice in virtual settings.

Registered teachers in virtual learning network (VLN) school, Kōtui Ako VLN deliver online learning for year 0 to 13 school learners throughout New Zealand. They are experienced teachers and knowledgeable with pedagogy for their subjects however teaching online adds unique additional requirements. Focused professional development is needed to address the specific skills and competencies required for teaching online. Kōtuitui NEX focuses on the distinct attributes of digital pedagogy, online classroom management, and technological proficiency with digital tools and learning management systems. Technologies continue to evolve necessitating ongoing evolving practice and providing new opportunities to personalise learning experiences, address diverse student needs, and utilise emerging technologies such as artificial intelligence and adaptive learning systems. Challenges online educators seek to mitigate include digital equity issues, technological barriers, and engaging and supporting learners. Targeted professional development initiatives address strategies to respond to these challenges.

Professional development is delivered in a range of ways such as blended hui/meetings, virtual workshops, online webinars and courses, and structured peer mentoring. Sessions incorporate interactive, engaging experiences that model effective online teaching practices. Recent research, processes, and relevant data trends are reviewed and disseminated. Online teacher collaboration and community is fostered by building a virtual network of practitioners and providing ongoing opportunities for sharing best practice and resources. Regular evaluation of initiatives and feedback support ongoing improvement and targeting of professional development. Online teacher self assessment and reflective practice is another significant component.

Professional development targeted for online educators plays a vital and ongoing role in enhancing pedagogical practices and improving student outcomes in virtual learning environments. The unique challenges and opportunities associated with teacher professional development for educators who teach online in New Zealand highlight the importance of research-informed, evidence-based, and evolving approaches to support teachers' professional growth and development.

Introduction

Kōtui Ako | Virtual Learning Network Aotearoa (Kōtui Ako) online primary and secondary school teachers are registered, experienced teachers, familiar with pedagogy for their subjects, however focused professional development is needed to address the specific skills and competencies required for teaching online. Kōtui Ako leads and supports Kōtuitui NEX which is part of the Ministry of Education funded Teacher Networks of Expertise, established to enable specialised and tailored peer to peer professional development and support for kaiako. Kōtuitui NEX supports the provision of professional development and learning support for online teachers, mentoring for new online teachers, and is open for all New Zealand educators to participate.

Online learning at Kōtui Ako is taught in synchronous classes plus independent learning tasks and resources. Online teachers are often isolated, with only one or two teaching online at their physical location and many are from rural and remote areas. Some lack time or opportunity to engage in professional learning that is unique to teaching online. Bringing online teachers together through Kōtuitui enables the development of a supportive network of online teaching professionals, grows the collective online teaching capacity, and ultimately improves the quality of online learning experiences for our students.

The practice under scrutiny

Kōtuitui Professional Learning

Kōtuitui NEX professional learning focuses on distinct attributes of digital pedagogy, online classroom management, technological proficiency with the digital tools, and learning management systems. There are more ways for students to communicate and interact, and learning opportunities that would not be possible without technology. Kōtuitui NEX shares innovative online practice, relevant research, and educational technology updates. It continues to address ways to mitigate online learning challenges around digital infrastructural and funding equity issues, resource-based technological barriers, and online learner support. The targeted professional development initiatives share collaborative experience, recommendations and practical strategies.

Kōtuitui Membership

Recruitment of teachers to Kōtuitui membership happens largely from within the Virtual Learning Network (VLN). Professional development is linked to the Kōtui Ako annual professional growth cycle that supports teacher registration. Leadership promote activities to new eTeachers and plan for Kōtuitui NEX to be an integrated part of VLN professional learning development (PLD) support to teachers and schools. Online teachers from GiftedEducationNZ, Ko Taku Reo, and Te Kura Pounamu also participate in Kōtuitui PLD opportunities. Teachers with an interest join through Kotuitui mailing lists and social media channels. Kōtuitui events are open to all teachers to attend without a membership requirement. Member benefits such as access to funding opportunities requires teachers to have active membership. Kōtuitui has a communication and coordination role to maintain consistency, and cohesiveness in our PLD organisation and regular communications with membership. Newsletters are produced regularly and social media channels are updated.

Professional Learning Methods

Professional learning offered includes mentoring of new eTeachers, peer networking to share practice innovations, upskilling, and keeping current in the pedagogical opportunities educational technologies offer. Teachers tell us their preferred methods of PLD delivery are just in time support, webinars, face to face/hybrid hui, 'Virtual Cafe' drop in networking, and social network interactions. Sessions incorporate interactive, engaging experiences that model effective online teaching practices. Events are recorded, resources, recordings, and discussion notes are shared. We observed a higher number of registrations than teachers participating in our scheduled webinar as teachers would often access later via recording when they were unable to attend in person at the time. We adapted facilitation methods to enable more teacher interaction asynchronously alongside real time webinars. Professional development resources and templates were shared beforehand with activities that requested teacher input (on shared slides or Padlet etc.) and these were incorporated into our workshop activities. Adapting facilitation methods enabled us to be more inclusive for teachers who were unable to attend real time sessions.

Professional learning foci are led by teacher feedback and requests as well as new developments. Recent topics have been: Motivating, engaging and supporting online learners, Online assessment, and Mātauranga Māori. Experts are invited such as Dr Dianne Forbes who recently shared insights and experience of 'Fostering Active Participation' in a hui. Kōtui Ako VLN Kaiarahi Mātauranga Māori, Tewaiehu shared mātauranga Māori including a pilot Te Waharo that supported teachers to learn the basics of te reo Māori and Tīkanga. The Ministry of Education recently led sessions on Te Mātaiaho curriculum changes and Connected Ako, the new Digital Strategy. Kōtuitui Nex provides contestable funding to support learning area collaboration and cross-curricular developments in response to learner interest or need.[7] Teachers collaborated to develop and pilot online programmes for Aotearoa Histories and Te Puna o te Kī (Māori Creativity) in 2023.A professional growth cycle has been developed for teachers to collaborate, observe others teach and have professional conversations on practice. Case studies have been developed that illustrate how online learning is working in our schools.[8]

Pedagogical Principles

Three key pedagogical principles that inform synchronous and asynchronous learning that underpin the VLN model are outlined in a report for the Ministry of Education (Virtual Learning Network Community 2022)as being Emergent design, Community and Connectedness, and Learner Centredness .

Emergent design refers to the planned prepared lessons which teachers flexibly adapt in partnership with learners, in a co-constructed environment. It uses dynamic, socially based tools. It acknowledges that learners may use the tools or tackle the activities in unanticipated ways. Overviews, learning tasks, activities, multimedia resources, and formative assessment are designed to support individual learners.

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[7] e.g. Mātauranga Maori resource for online Language Course Design.

[8] e.g. https://hail.to/ktuitui-online-teachers-network/publication/ijQBcUo

Community and connectedness are fostered to build social presence within a learning community in which meaning and knowledge is co-created. Teachers facilitate discussion both in the synchronous session, and also asynchronously within online platforms such as Google Classroom/Seesaw.

Learner centredness enables learning based on goals that are important to the learner. The teacher balances structure and flexibility, individual and community, and provides learner choice, control, and multiple ways to engage and learn. Teachers encourage each learner to take responsibility for their learning, and follow learning paths that are engaging, motivating, and meaningful to them. As a bicultural nation, we acknowledge the importance of including Te Reo Māori and tikanga in our practice, and of culturally responsive, sustaining pedagogy to acknowledge and respond to individual learners' backgrounds, especially their cultural background.

Evolving towards Networked Learning

Our online learning pedagogical model continues to evolve. We anticipate rather than calling it 'online' or 'virtual' learning in future the term 'networked learning' will be used to acknowledge the complex interplay of human interpersonal relationships, digital technologies, and collaborative engagement.

> "Networked learning involves processes of collaborative, co-operative and collective inquiry, knowledge-creation and knowledgeable action, underpinned by trusting relationships, motivated by a sense of shared challenge and enabled by convivial technologies. Networked learning promotes connections: between people, between sites of learning and action, between ideas, resources and solutions, across time, space and media" (Networked Learning Editorial Collective, 2020, p. 320).

It is distinguished from educational developments with minimal human connectivity and that reduce education to production, delivery, and consumption of online content.

Future opportunities

Kōtuitui NEX continues to explore emerging technologies to personalise learning experiences and address diverse student needs. Multimedia virtual and augmented reality options continue to develop providing new opportunities. Artificial intelligence, data analytics, and adaptive learning systems offer opportunities to develop personalised learning paths and customise content to better meet the individual learning needs, goals, and interests.

From feedback, teachers value these opportunities Kōtuitui Nex has provided and have grown in their skills, knowledge and confidence. We recognise there are areas where we could do more to support teachers and continue to take onboard the feedback we receive from teachers. There is still more work to do to continue to develop our pedagogical resources and offerings such as:

- Further develop pedagogical resources collaboratively with eTeachers, to unpack in more practical ways that will support practice for online teaching and online learner support;
- Make PLD more accessible by providing more PLD opportunities during the school day with teachers released to participate;
- Organise our PLD resources so they are more accessible to members;
- Trial a members platform that is user friendly and links to email so it can be accessible by all.

Discussion/Conclusion

This paper suggests targeted networked professional learning is key to supporting effective online teaching. The take home message is that funding, such as the Networks of Expertise initiative, is key to continue to build online teacher capability. There is an acknowledged need to continue to build NZ teachers' capability and skill in using digital technologies in teaching and learning (Barbour & Wenmoth, 2024; Ministry of Education, 2023). Customised professional learning continues to build the effective online teaching capability, which in turn grows the flexibility and resilience of the teaching profession (Lindsay & Whalley, 2020). Through Kōtuitui NEX we can leverage our collaborative expertise, grow teacher leadership and capability, strengthen cross-sector primary and secondary professional networks, and provide facilitation, support and leadership for online teaching and learning. A capable online teaching workforce not only serves to mitigate potential inequities associated with access to subjects for some learners, particularly those in remote and rural schools, it also increases the resilience and capability of teachers to respond to future pedagogical opportunities from digital technological advances and to respond to future global challenges.

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Supporting Continuing Professional Development of Teachers in the Pacific

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Abstract

As noted by the Commonwealth of Learning (COL, 2023), open, distance and flexible learning (ODFL) is an important channel for increasing educational opportunities and outcomes. It is particularly relevant for the Pacific, given small dispersed remote populations and limited access to secondary and post-secondary opportunities in rural and outer island locations. Despite the potential of ODFL for the region, there has been limited investment. The COVID-19 pandemic further reinforced the need for the Pacific to be better prepared for non-contact teaching and provision of learning approaches outside of traditional classroom-based practices. Consequently, COL initiated the Partnership for ODFL in the Pacific (PODFLP), which is a 5-year project (2020 – 2025), funded by the New Zealand Ministry of Foreign Affairs & Trade, to support enhancing capacity and efficiency of education sectors in the Pacific through greater use of innovative delivery mechanisms and technology. COL, together with the Pacific Centre for Flexible and Open Learning for Development (PACFOLD), implements the project in the nine Commonwealth countries in the Pacific **(**Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu). The COVID-19 pandemic has resulted in the unprecedented disruption of education globally, threatening to reverse gains made in access to education and learning across countries. Education and learning in the Pacific have also been affected given limited access to distance learning during school closures, especially in rural and outer island locations. As an immediate response to COVID-19, the project supported the region in two ways, providing access to Open Educational Resources (OER) to support distance learning; and developing and offering professional development for teachers in distance learning. Effective interventions in this space require an understanding both of teacher identity in general and specific contextual and cultural dynamics as well as of the role of technology in teaching. As noted by Mays (2021), teacher identity is formed over years of experience from being a learner in school, then as a student teacher in college and then as a classroom teacher in a school. For most teachers currently in service, these experiences were all framed by engagement in a physical space. However, adopting ODFL, and in particular supporting effective fully online learning, requires a new set of capabilities on the part of teachers (Gasevic, 2020). This paper therefore explores how continuing professional development offered to help teachers acquire new knowledge and skills related to use of new technology and new teaching approaches not premised asynchronously.

Introduction

There are several facets that make up teacher's role. They are professions who need spaces where they can share their professional experiences. While teaching they also manage people, resources, time and reporting apart from acting as caregivers in classrooms. During the course of their career, teachers develop a range of pedagogical practices. It can not be denied that they are also specialists is the field. Given that teaching involves so many aspects, any effective intervention to address the ODFL adoption in the South Pacific will

need to consider the various aspects of a teacher's identity and at the same time be aware of the cultural diversity that exist in the region (Matopo, 2021; Reynnolds, 2021; Taleni, et al. 2018).

Moreover, it is important to understand that for effective continuing professional development (CPD) it is not enough for teachers simply to have mastered the content they are required to teach, they must also know how best to teach that content in ways that help pupils to learn effectively – what Shulman (1986) called 'pedagogic content knowledge'. Given the increasing use of technology in teaching it is also important for teachers to make informed decisions about what technologies are best used in what ways and for what learning purposes (Mishra and Koehler, 2006; Koehler and Mishra, 2009).

COL's work on Online learning in the Pacific

An important precursor to the PODFLP initiative was COL's response to a request received from Fiji near the start of the pandemic to guide teachers in using online tools and resources to cope with emergency remote teaching. In a very short space of time, COL created and offered a short online course called *OER for Online Learning: An Introduction*. Although there was no time to consult with teachers in the region before launching the course, a key design feature was encouraging teachers to share resources and experiences with one another (Mays. et al., 2021) and regional mentors were appointed to facilitate such discussions. This initial short course is aligned with the first level of the UNESCO ICT-CFT – focused on knowledge acquisition.

Between March and June 2021, the short course was offered again as the first of several strategies to provide support to teachers. The course provided teachers with guidelines for working in new ways, using openly licensed online resources. It served as a useful foundation on which further, more in-depth learning could subsequently be built.

One of the earliest activities in the PODFLP initiative was development and population of a regional OER collection which provided teachers with free access to a variety of guidelines and examples of how to use digital resources to support emergency remote teaching and subsequently blended and online learning. The regional collection was then replicated at a national level to allow each country to customise the collection to address its own national curriculum structure and interests. Two countries have so far modified and added locally developed resources to their national collections with help from COL (Muthu & Mays, 2022) and a third country has just started with customisation. In addition, COL published guides on re-versioning OER and integrating OER into teaching in ways that would make for a better fit with local contexts and needs (COL 2021 a, b).

Given that most teachers' experiences have been shaped by working in physical classrooms, it is necessary to provide training in how to use ODFL methods, the focus of the PODFLP initiative. Taking the lead from the very successful short course developed at the start of the pandemic, COL partnered with the OER Foundation to design, develop and facilitate an open online micro-course on Digital Skills for OER Sharing (DS4OERS). Lessons learned from the experience gained from the facilitation of the inaugural cohort offering were used to make some revisions to the course, whereafter it has continued to be openly hosted to allow stakeholders to access, use or adapt as best suits their need (Mays & Mackintosh 2022). For example, the University of the South Pacific recently offered a slightly adapted version of the

short course. Lessons learned from these experiences have shaped the development of several subsequent open short courses on Communication Skills for ODFL, Assessment Skills for ODFL, Learner Support for ODFL and, most recently, Quality Assurance for ODFL Part 1. The latter course focuses on strategic issues while a second course is currently under discussion which will focus on operational issues. The design and content of the latter short courses has been informed also by a series of regional webinars and this marks a shift away from COL anticipating training needs towards stakeholders in the Pacific identifying and themselves addressing local challenges and related training needs. To this end, COL also commissioned development of another short course called Empowered Digital Teacher for Online Learning which aims at training senior teachers in the Pacific to use the open course platform which has been developed to create and offer courses for other teachers in the Pacific. In similar vein, the PODFLP project also supports a local teacher capacity development initiative called the Wisdom Community of Pasifika teachers, which is an initiative of the Fiji National University. These later interventions can be seen as aligning with the second level of UNESCO's ICT-CFT model focused on knowledge deepening.

In the second half of 2022, a series of webinars was held to explore high level policy, strategy and financial issues related to ODFL provision. The webinars were targeted at senior Ministry officials. The first webinar provided an overview of key issues, the second webinar was designed to facilitate responses from partner Ministries, and the final webinar was designed to solicit project proposals. While no formal project proposals were received, several activities are currently happening in response to these discussions. The webinars, as well as the short course Empowered Digital Teacher for Online Learning, can be seen as the beginning of a move towards the third level of UNESCO's ICT-CFT which focuses on knowledge creation. In March 2023, COL hosted a face-to-face meeting of Ministry focal points in the region to discuss how PODFLP activities can be enhanced in the second half of the project.

COL also commissioned development of an Open Course Catalogue to provide a one-stop website where teachers can find other open training opportunities they might need. The intention is that the course catalogue will increasingly be populated with open courses developed and offered in the region and that the platform itself will eventually be maintained by an institution based in the region (Mays 2022). In all iterations of the open courses developed and offered in the Pacific, local mentors have been contracted to support the learning process and to help better to contextualise the learning. COL commissioned the OER Foundation to review the lessons of experience from these engagements and to proposed ways in which the mentoring model could be improved. A discussion on building a regional mentoring network is ongoing. As part of Partnership for ODFL in the Pacific, several open courses were developed and offered for teachers in the. Not all the teachers who register for a course engage and completion rates are very low. However, the courses remain open after the initial facilitation period and teachers can access the course content at any time as needs arise. Trends have emerged from the work done to date show that many Pacific teachers lack the prerequisite ICT skills to fast track their independent learning online. Many Pacific countries lack the ICT infrastructure and skills to manage open online ecosystems effectively. Additionally, many of the mentors who have been contracted in the past to support the process lack both the requisite technical skills and the online interactive pedagogy. (OERF, 2022, pp.3-4).

Conclusion

We also know from prior experience that key to high engagement retention and completion of online CPD short courses for teachers is that participation should be recognised for continuing professional development credits/hours and that Ministry-based staff should be actively engaged in providing mentoring support (Mays et al. 2021). It has therefore been proposed to establish an online platform to train regional mentors and to provide a space in which they can share professional practices (OERF, 2022).

Increased use of ODFL approaches can help the Pacific Island Countries to reach learners who have not previously been reached and to ensure continuity of learning in the face of a number of events which may impact traditional face-to-face provision. However, the experience of most teachers in the region has been shaped by working in a physical setting and traditional classroom-based teaching. Therefore, it is imperative that teachers are offered continuous professional development opportunities to acquire and practice new skills related to ICT use and ODFL practices. We will have most impact if CPD interventions speak to contextual realities, are recognised for CPD points/hours and where there is active mentorship by Ministry officials or Ministry-appointed senior teachers.

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The Kakala Classroom: A Pacific Pedagogical approach to relational teaching online

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Abstract

The practice under scrutiny is online course design for asynchronous delivery to graduate students who cannot be assumed to have prior tertiary experience. How could an entry-point course foreground, honour, and build upon their life and work experience? In 2021, He Manga Tauhohoko, the University of Auckland Business School, launched an online Postgraduate Diploma in Business (PGDipBus), opening a pathway to the Master of Business Management. Admission is via five years of work experience with no prior qualifications or two years of work experience combined with either a bachelor's degree in any discipline or a relevant professional qualification. Entry-point courses aim to deliver content, develop research and academic writing skills, introduce and encourage academic integrity, and socialize students into tertiary education on a technology-enhanced platform.

This paper presents the relational pedagogical approach its authors took in 2021 to develop and deliver the first *BUSMAN 771 Business and Society*, considering its overall relevance and specific application to one assessment design and one device for optional online webinars.

We turned to the Kakala framework developed by Tongan Professor Konai Helu-Thaman and since used to inform teaching policies (at national and institutional levels) and research design. The model is informed by the *faa'i kaveikoula 'a e Tonga* – the four golden pillars of Tongan values – acknowledging and returning respect, humility and openness to learning, maintaining ongoing relationships, one's loyalty and passion. These aptly describe the characteristics we aspire to in our teaching. Beyond its obvious application to Pacific learners, the Kakala Framework describes a pedagogical approach honouring all learners.

Incorporating the Kakala framework, the course structure aimed to honour and integrate students' past experiences while fostering a supportive online learning environment. The major assessment was broken down into manageable parts, with iterative feedback provided through submission points to help students develop their major assessment incrementally. A detailed rubric was likewise broken down to be instructional as well as evaluative. Optional Zoom webinars, complemented by a visual net-like Zoom background, facilitated interactive discussions, further emphasizing relational connections in the virtual space.

The paper concludes with reflections on the effectiveness of this relational approach. Evaluations and feedback from students indicate that the course's structure and pedagogical strategies successfully supported their learning journey. By prioritizing relational pedagogy and iterative assessment, BUSMAN 771 models a way for online courses to be designed to respect and integrate diverse student backgrounds while promoting academic success.

Introduction

In 2021, He Manga Tauhohoko, the University of Auckland Business School, launched an online Postgraduate Diploma in Business (PGDipBus) via Auckland Online

(https://www.online.auckland.ac.nz/). It opens a pathway to the Master of Business Management. Admission is via five years of work experience with no prior qualifications or two years of work experience combined with either a bachelor's degree in any discipline or a relevant professional qualification. Thus, cohorts bring work and learning experiences from diverse backgrounds, including students who left school at 15 years old and senior managers (sometimes the same person). Though students can complete the programme asynchronously without face-to-face contact, optional webinars are offered.

PGDipBus entry-point courses aim to deliver content, develop research and academic writing skills, introduce and encourage academic integrity, and socialize students into tertiary education on a technology-enhanced platform. This paper presents the relational pedagogical approach its authors took in 2021 to develop and deliver the first *BUSMAN 771 Business and Society*, considering its overall relevance and specific application to one assessment design and one device for optional online webinars.

Practice under scrutiny.

The practice under scrutiny is online course design for asynchronous delivery to graduate students who cannot be assumed to have prior tertiary experience. How could an entry-point course foreground, honour, and build upon their life and work experience?

We turned to the Kakala framework developed by Tongan Professor Konai Helu-Thaman and since used to inform teaching policies (at national and institutional levels) and research design. It conventionalizes the process of selecting (*Toli*) and threading (*Tui*) fragrant flowers and leaves to create a *kahoa kakala* ceremonial garland to present (*Luva*) to an honoured recipient. The model is informed by the *faa'i kaveikoula 'a e Tonga* – the four golden pillars of Tongan values: *faka'apa'apa* (acknowledging and returning respect), *anga fakatokilalo/loto tō* (humility and openness to learning), *tauhi vaha/vā* (maintaining ongoing relationships), *mamahi'i me'a* (one's loyalty and passion). These aptly describe the characteristics we aspire to in our teaching. In 2009, Helu-Thaman's (1997) framework was augmented by Taufe'ulungaki and Johansson Fua with the addition of *Teu* (Preparation), *Mālie* (Evaluation), and *Māfana* (Transformation).

Figure 1: 'Kakala', Te Tāhū Hauora Health Quality & Safety Commission (2023).

More broadly, the Kakala framework embodies and attends to understandings and experiences of Pacific relationality conceptualized and conventionalized as vā, 'space that

connects'. Baice and colleagues (2021) argue that conceiving the learning environment through a Pacific worldview centralizes the *vā* (relationships) within that space and determines the reciprocity of the teacher-learner dynamic, dismantling the traditional power imbalance of the 'lecture' and de-centring the teacher as the embodiment of knowledge. Beyond its obvious application to Pacific learners, the Kakala Framework describes a pedagogical approach that honours all learners, and, as Anae and colleagues (2010) declare, "Teu le va is a collective call to action for all to take responsibility for the success of all."

We began to ***Teu*, to prepare** the details for the garland to be woven by asking, who are our students? We imagined their work experience and past education experiences, their motivation to study business, the environments they would join optional online webinars from, the materials they might best engage with, and patterns for content delivery and assessment development and submission. From these considerations emerged an overarching course narrative and list of what was needed to create a cohesive learning journey carefully tended online.

Next, ***Toli,* selecting resources** for curriculum development and delivery. We collated materials from academic and popular presses. We required students to use examples of both in the course's assessments to acknowledge that students' lives outside the academy also afford access to critical materials. Then we could begin ***Tui:* building a course and assessments.** Working with OES in Australia, we developed our modules and the course's major assessment: a business report with a cover memorandum, executive summary, reference list, and appendices. As students follow the course from module to module, they develop the skills they need to prepare the components of their report. Submission points for drafts (see Table 1 below) allow early feedback and keep students on track for their final submission.

Assignment 2 Submission Points:	**Skills taught in Module:**
2a: Working reference list	5.5: APA referencing
2b: Draft Appendices	6.5: Appendices, in-text citations, reference lists
2c: Draft body paragraphs	7.7: Business writing
2d: Full Business Report	2.7: Overview of Assignment 2

Table 1: BUSMAN 771 Assignment two assessment points and skills modules

It seemed vital that students could break an assessment down into its parts and follow a logic that helped generate these parts to complete it.

This assessment also has a comprehensive and very detailed rubric. Sections of the report are assessed across multiple parts of it. So this could be an effective teaching and evaluation tool, we created an interactive rubric. As skills are taught (see table above), students are called to click on particular rubric headings to reveal how and where these skills will be assessed (see appendix showing the rubric sections applicable to the Memorandum).

During course delivery, the *tui* stage also manifested through optional Zoom webinars. We invited students to share their thoughts and insights and work through making sense of these, threading their experiences with the course readings. This approach offers the learner who

responds to face-to-face interaction a relational way of conceptualizing concepts and theories congruent with their ways of being and seeing. To foster connection while working online, we adopted a Zoom background developed by the

Figure 2: Kupenga device, courtesy Vā Moana – Pacific Spaces Research Cluster AUT.

Vā Moana – Pacific Spaces Research Cluster at Auckland University of Technology, to which we are affiliated. It reproduces a section of a *kupenga* or net. When used by a group, it creates a visible net-work. The *kupenga* links us together online even while we acknowledge each other's differences, and making the webinars strictly optional acknowledges different learning styles and needs. (The screengrab above is from a special webinar we held with Professor Stefano Pascucci to discuss the circular economy.)

Discussion and conclusion

The last stage of the *kakala* framework is ***Luva:* offering** the final product for evaluation. *Luva* parallels evaluating whether teaching objectives and learner outcomes were achieved. In *BUSMAN771,* it also represents the submission of students' final coursework. This recognition of the knowledge contribution that students make to the academy is vital. Thereafter, and threaded throughout each stage that has come before, are stages of *mālie* (evaluation) and *māfana* (achievement/assessment of transformational outcome). At each stage of the course development and throughout its delivery, we evaluated progress and student understanding and made minor adjustments wherever possible. Likewise, our assessment structure, with check-in points where draft components were submitted, allowed students to do the same.

By prioritizing the centrality of *vā* relationships and holistic interpersonal connections, we aimed to create a relational teaching space online for *all* learners, and we threaded this approach through our assessment design. OLE, SET evaluations, and student feedback have told us this approach works (see samples below). Our student retention rates are excellent,

and PGDipBus enrolment numbers have trebled since our paper launched the programme in Q4 2021.

Deliveries in 2021, 2022 and 2023 were evaluated by OLE and SET. Sample feedback:

> I really liked how the assessment business report was built up, it provided a great structure and enough incremental feedback to improve aspects of the report.
>
> Clear and informative guidelines. For example, assessment and how–to guides throughout the modules.
>
> I loved the way this paper was designed. I felt really supported and the way in which we submitted bite size assignments which went on to be part of the final paper was very helpful
>
> The course was well designed and there was constant communication. The weekly zoom sessions was really valuable.
>
> The content was practical and helpful for my work. The lecturer's comments on each assignment after submission were constructive.
>
> I enjoyed the feedback provided on my drafts to help improve my final report and the skills development work was also very helpful in this regard.

We also run a fast feedback session in week three each year to surface early issues detracting from student learning. At each course delivery, a small group of students reported discomfort approaching the major assessment piece by piece. We explain our reasoning and encourage them to trust us and the process. They have invariably fed back that by doing so, they could manage their time and complete the coursework—and that they did not think they otherwise would have done so. Relationships and expectations are negotiated and managed at any stage of making a *kahoa* garland. In *BUSMAN771*, Students may experience uncertainty at re-entering education and learning the academy's conventions. Teachers may be unsettled by tensions that surfaced through formal or informal feedback. ***Faka hohaʻa—* the tension that leads to harmony** was recently conventionalized as a research methodology complementary to the Kakala Framework (Koloamatangi, 2023). It describes such feelings of uncertainty and discomfort accompanying redirection and rediscovery.

Acknowledging *faka hohaʻa* gives us confidence to stick the course and clarifies when to adjust our relational teaching. It is the force that keeps our pedagogy reflective.

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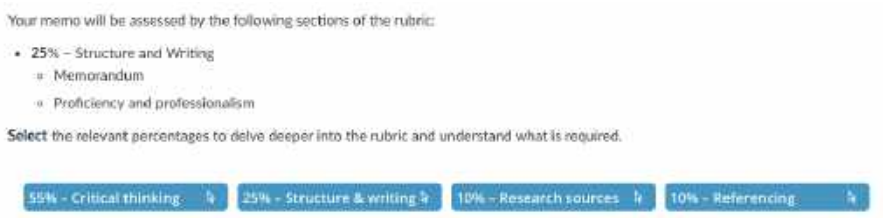
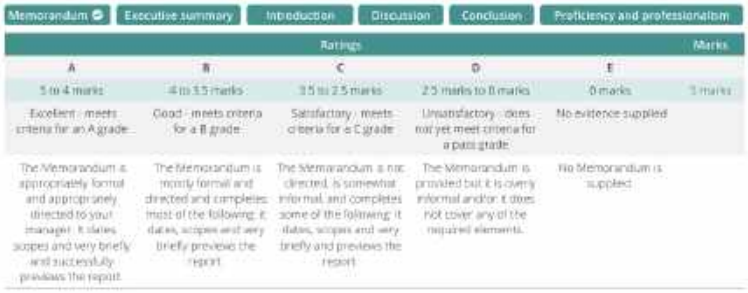
Appendix: Marking rubric components for Memorandum.

1. Initial ‘Call to click’:



2. Clicking on ‘25% Structure and Writing’ reveals:

3. Clicking on ‘Memorandum’ reveals:



4. Clicking on ‘Proficiency and Professionalism’ reveals:

The Learning Design Studio: Amplifying pedagogical innovation

Associate Professor Thomas Cochrane, University of Melbourne, Australia

Dr Julian Harris, University of Melbourne, Australia

Dr Elisa Bone, University of Melbourne, Australia

Professor Gavin Buskes, University of Melbourne, Australia

Abstract

The Learning Design Studio Workshops (LDSW) is a professional development (PD) framework for academics that models collaborative curriculum design to address identified pedagogical problems or foster innovation in teaching and learning. Utilising a design team incubator approach (Cochrane & Sinfield, 2022), the workshop series consists of three sessions covering: (1) an introduction to Design-Based Research (DBR) and identification of an educational challenge, (2) collaborative rapid prototyping of a pedagogical design solution or innovation to initiate and establish a team-based on-going curriculum design project, (3) evaluation of impact and feedback designs for iterative redesign and improvement of the pedagogical design solution or innovation. The final component of the LDSW is a collaborative showcase to transfer and scale practice after one cycle of implementation to a wider community of practice (https://blogs.unimelb.edu.au/sotel/).

The need for innovation in teaching and learning through Technology Enhanced Learning (TEL) has been highlighted by the response to COVID-19, the rise of generative AI and the continuing need and benefits of quality authentic learning experiences enabled by digital innovation or TEL (Wells Advisory, 2021). Critical to this innovation is the development of teacher digital literacies that enhance the student learning experience through innovative curriculum design or redesign. This needs to be supported by transformative approaches to professional development.

The development and support of COllaborative Inquiry teams (COI Teams) is one of the most transformative models of PD for curriculum design (DeLuca et al., 2015; Donohoo, 2013; Kennedy, 2014; Morewood et al., 2021). The TEL LDSWs aim to support the development of COI Teams within disciplinary contexts in collaboration with educational specialists to guide the pedagogical design, implementation, and evaluation of COI curriculum design team projects. The goal is to support the development and implementation of TEL pedagogical designs throughout one year at a program level.

The LDSWs aim to implement such a transformative environment and collaborative cohorts across Faculties, with a specific focus upon TEL, through explicit collaboration and mentoring from more experienced peers building on Mor and Mogilevsky's (2013) Design Inquiry of Learning (DIL) model. The LDSW amplify the DIL through implementing a programmatic DBR approach (Cochrane, 2022), leading to specific transferable practice outcomes for evaluating and scaling the outcomes.

In this practice paper we outline the LDSW model and briefly describe one case study implementation. We finish by making recommendations for implementing the LDSW model of PD through collaborative curriculum design.

Introduction

Kennedy argues that PD for higher education academics is an under-theorised context (Kennedy, 2014). Kennedy introduces three lenses through which to examine PD activities and evaluate their impact on practice as transmissive, malleable, or transformative (Kennedy, 2005, 2014). Building on Kennedy's framework Desimone (2009) characterises transformative PD as: longitudinal, involving active learning, coherence and collective participation. The DIL model is one application of these characteristics to create transformative PD experiences. The LDSW was designed to amplify the DIL through scaffolding interdisciplinary collaborative inquiry teams to design curriculum innovations (https://telbootcamps.edublogs.org/learning-design-studios/). In 2023 the LDSW was applied to five different Faculty contexts (Engineering and IT, Fine Arts and Music, Faculty of Education, Science, Learning and Teaching Initiatives). This paper explores one of these iterations (Engineering and IT).

Practice under scrutiny

In this section we briefly describe one case study of implementing the LDSW to scaffold collaborative curriculum design and evaluate the impact of the design of a full-year capstone interdisciplinary project for students in a master of engineering program. The three stages of the LDSW applied to this context are summarised below:

(1) An introduction to DBR and identification of an educational challenge.

The project team defined an educational challenge through the use of a PICO (Population, Intervention, Comparison, Outcome) statement: What are the design principles for Capstone interdisciplinary engineering student design teams (P), collaborating on real world projects (for example: Loudspeaker Design) (I) compared to single discipline-based projects (C) as a transferable authentic learning design model?

The PICO statement was used to craft a rapid literature review to identify design principles to address the educational challenge. These were then used to develop a rapid prototype design solution involving two student design teams from different engineering disciplines – Electrical Engineering and Mechanical Engineering – who collaborated on the design of a loudspeaker system (Buskes et al., 2023). The project was titled "Transforming energy and pedagogy: An authentic learning experience".

(2) Collaborative rapid prototyping of a pedagogical design solution or innovation to initiate and establish a team-based on-going curriculum design project.

A Microsoft Teams channel was established to co-create a capstone project outline, resources and invite input from relevant industry partners. The project team co-supervised the first iteration of the implementation of the capstone project in 2023 and a second iteration in 2024.

(3) Evaluation of impact and feedback designs for iterative redesign and improvement of the pedagogical design solution or innovation.

Ethics consent through the university's human ethics committee was obtained to develop project participant feedback and evaluation through a pre/post questionnaire, analysis of student team eportfolio artefacts and focus group feedback. Feedback evaluation is beyond the scope of this practice paper and will be reported in future articles.

Discussion and conclusion

The LDSW for engineering academics not only scaffolded the development of an interdisciplinary collaborative student capstone project but also mentored these academics in SOTL and TEL design. This process created a deeper foundation for curriculum innovation through the development of a scoping review to identify interdisciplinary project design principles (Cochrane et al., 2024), application of a design framework to guide the develpment of the educational innovation (Cochrane et al., 2023) and reflective sharing of practice for evaluating its impact (Buskes et al., 2023).

The LDSW scaffolds Kennedy's three lenses of PD towards a transformative experience that begins with a guided introduction (Transmission) to a DBR curriculum design framework (Malleable) that is then implemented collaboratively to address a specific context (Transformative). This three-lens scaffold is mirrored in the educational outcomes of the innovation design to the P-A-H continuum (Pedagogy-Andragogy-Heutagogy), where the goal is the development of self-determined learners (Heutagogy) who can tackle the complexity of real-world problems (Blaschke & Hase, 2019; Luckin et al., 2010). The correlation between the three lenses of PD and the P-A-H continuum can be illustrated using the analogy of a loudspeaker equivalent circuit, which also provides the framework for the collaboration of electrical and mechanical engineering students in the capstone project (Figure 1).

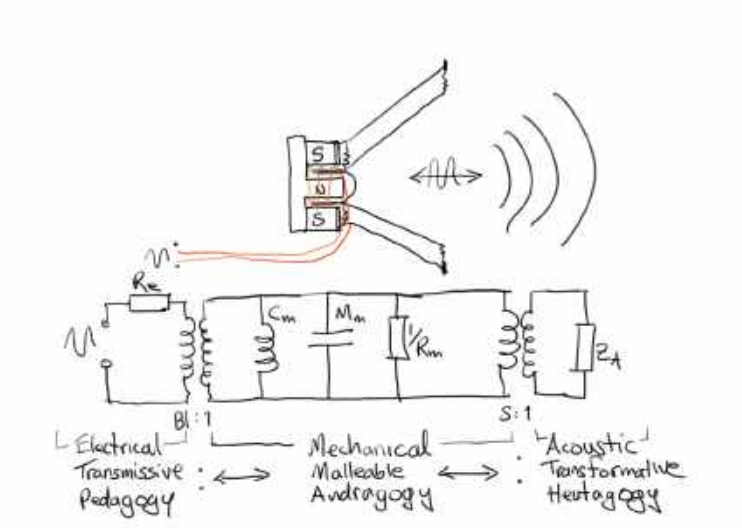


Figure 1: Equivalent circuit of a loudspeaker mapped to the LDSW PD experience and the P-A-H continuum.

The loudspeaker equivalent circuit analogy provides a design framework for loudspeaker systems where each element interacts to create the final output in transforming electrical sources into mechanical movement that produce acoustical sounds. In a similar way, transmissive and malleable PD experiences, with the LDSW as an example, can be designed to lead to collaborative transformative PD experiences that reframe curriculum design from pedagogy (teacher-centric) to andragogy (student-centred) to heutagogy (student-determined learning) through interdisciplinary collaborative student projects.

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Advocating for ODL in Aotearoa New Zealand: ICDE Global Advocacy

Dr Mark Nichols, ICDE and Open Polytechnic, New Zealand

Associate Professor Maggie Hartnett, Te Kunenga ki Pūrehuroa | Massey University, New Zealand

Ms Torunn Gjelsvik, ICDE, Norway

The International Council for Open and Distance Education (ICDE) initiated its Global Advocacy Campaign (GAC) in 2022. The GAC Toolkit (available in English here: Global Advocacy Campaign - ICDE | https://www.icde.org/global-advocacy-campaign/) assists ICDE members and partner organisations (including FLANZ) to promote open, flexible and distance learning (OFDL) to key stakeholders. An Oceania Task Force is already established, with the support from the University of South Pacific (USP) in Fiji.

The workshop will provide a brief introduction to the GAC before inviting participants to identify regional and national issues related to OFDL that might form the basis for a campaign of national advocacy. The workshop aligns with the conference streams of "Evolutionary practice, flexible methods and pathways", "Sustainable practices" and "Diversity, equity and inclusion".

Description

The workshop will provide a brief introduction to the GAC before inviting participants to identify regional and national issues related to OFDL that might form the basis for a campaign of national advocacy.

Focus questions are as follows. They cascade on one another.

1. How well is ODFL understood in your context?
2. What are the key educational needs in your region and nation? Feel free to combine insights from your institution's context as well as your general impressions. Think in terms of national and organisational policy, as well as teaching and learning practice, that is, take in as broad a view as possible.
3. How might ODFL contribute to the needs you identified in 2 above?
4. Who needs to know what you identified in 3 above?

Each of the questions will be discussed in small groups in turn, with plenary feedback before the next question is engaged with.

Following these four conversations and reporting points, participants will be challenged to prepare an initial advocacy message draft in accordance with the GAC template. The ICDE is also interested in receiving participants' responses in support of its global activity in this area.

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BizzBot: Trialling artificial intelligence and digital assistants for student queries at the University of Auckland Business School

Dr Parizad Mulla, The University of Auckland Business School, New Zealand

Mr Shohil Kishore, The University of Auckland, New Zealand

Dr Michelle Kilkolly-Proffit, The University of Auckland, New Zealand

First-year courses at the University of Auckland Business School routinely range in size from 350 – 1800 students each semester. Team-based learning, flipped classrooms and relational learning all drive an approach to classroom experiences that aim to be student-centred despite the scale at which the school operates. This large scale of first-year courses at the Business School attracts a sizeable volume of often repetitive administrative questions. This is understandable given the transition to university challenges faced by many students, but it also consumes extensive time and labour from already stretched academic staff. To date, 'Piazza' has been used to provide collective responses to student queries that may be relevant across cohorts, but Piazza still requires a considerable commitment of time from often stretched teachers. With this in mind, and based on initial experiences of chatbots in a joint trial across multiple Australasian universities in 2022 and 2023, it was thought that Artificial Intelligence (AI) technologies may be able to alleviate some of the pressure placed on academic staff in answering many non-disciplinary queries. This would also benefit students by giving them the flexibility to ask questions and have them answered in real time even after hours. Consequently, it was decided to trial an AI chatbot to answer student administrative queries via the course Learning Management System (LMS) in our large first-year courses.

For this first iteration of the chatbot (playfully coined 'BizzBot') powered by IBM watsonx, transdisciplinary staff from the Departments of 'Management and International Business' and 'Information Systems and Operations Management', have come together to create a list of administrative 'intents' based on frequently asked student questions over the past five years. Initial feedback from both staff and students has been encouraging and has highlighted the benefits of real time responses 24 hours a day and on-demand around diverse student schedules. Easy integration with Canvas - our institutional LMS, significantly reduced academic administrative workload, and the necessity of minimal technical expertise or maintenance once established have also been identified as advantages. Immediate shortcomings are largely related to the lack of staff familiarity with back-end processes; the fact that the trial is not currently generative in nature (for privacy and ethical reasons), meaning that chatbot responses can become out of date if not actively monitored and updated, and potential frustration with answers that require multiple refinements to address dynamic situations or quirks in student queries.

AI has been shown to have a significant impact on education over several decades (Chen et al., 2022), and its implementation introduces both opportunities and threats that inform our teaching practices (Nguyen et al., 2022; Kishore et al., 2023). These opportunities and threats will be discussed in this workshop along with how the chatbot works and its resource requirements. Proposed future work in this area will also be discussed, and workshop participants will be able to ask questions before we conclude.

Description

This workshop aligns with the conference themes of evolving our practices to provide flexible learning opportunities to our students via the use of artificial intelligence technologies. It will be one hour long and will involve five or more participants. It will include a 20-minute PowerPoint presentation in which participants will be given background information on the technology and the context in which it is being trialled. A 15-minute demonstration of the chatbot and the 'intents' underlying it will follow, and in collaboration with IBM, the workshop organisers will attempt to arrange temporary access to IBM watsonx so participants can get hands-on experience with the platform to build their own prototypes for 10 minutes. The next 10-minutes will involve a discussion on the following questions:

1. What qualms or worries do audience members have about the use of AI chatbots in an educational context?
2. Has anyone also been trialling AI chatbots in an educational context and what has been the result?

The final five minutes of the presentation will be left for open questions from the audience.

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Simply Powerful ONLINE EXAMS (schools, higher education, organisations). Flexible, Authentic Assessment at Mt Hobson Academy.

Mrs Alison Gonscak, Mt Hobson Academy / Exam.net, New Zealand

The shift to online learning in the last few years has been swiftly accelerated with global events. Whilst some organisations have found these changes straightforward, many have struggled with achieving the goal of sustainable, reliable, and valid assessment methods.

Mt Hobson Academy is a fully online school catering for year 1 to 13 students in New Zealand. We have been granted consent to assess NCEA Achievement and Unit Standards by the New Zealand Qualifications Authority and have successfully facilitated both internal assessments and benchmark/practice examinations for our senior students to have derived grades available for their external NCEA examinations. This has been aided with the implementation of Exam.net.

The aim of this workshop is to provide attendees with a practical, seamless and professional development solution for secure online (and remote) assessments. Participants will:

- Learn the tips and tricks of how Mt Hobson Academy have successfully managed NCEA assessments using Exam.net.
- Interact as a student exploring Exam.net functionality.
- Learn how to create assessments, integrating resources such as reference sheets, video clips and mathematical sites such as Desmos and NZGrapher.
- Understanding the different security modes and how to implement the high security mode.
- See how to monitor students and manage authenticity during assessments.
- Explore marking methods.

Conference themes:

- This workshop explores flexible assessment methods where a secure authentic assessment can be sat online remotely, or in a classroom environment. The platform can incorporate multi-methods of presenting material for students including audio and video content. Students have a seamless process to automatically attach photographs of their “pen to paper” work to their assessment submission.
- This interactive workshop will give professional development and training on everything participants need to know to use the platform with tips and tricks of how Mt Hobson Academy have successfully managed NCEA assessments.
- Special Assessment Conditions and diverse learners: The workshop shall explore features that provide elements for learners who need extra support to demonstrate their knowledge with the learner landscape no longer confined to the physical classroom.

Description

This workshop is an interactive session. Attendees participate and explore functionality of the site from all aspects: as if they are sitting an assessment (scavenger hunt style quiz), facilitating and monitoring methods (demonstrated during the quiz), through to the creation

and marking of an assessment. Time towards the end of the session would be given to discuss the secure exam browser and technical aspects.

Getting published in an academic journal

Dr Simon Paul Atkinson, Journal of Open, Flexible, and Distance Learning, New Zealand

Dr Alison Fields, Infosolutions.co.nz, New Zealand

Academic publishing is competitive and there are a huge range of potential publications you could submit your research to. All of which can be daunting, even for experienced and already published authors.

In this workshop, the co-editors of the Journal of Open, Flexible and Distance Learning, will work with you through the six steps you need to consider as a potential published author.

These are the need to **begin writing during the early stages** of your research or doctoral study. Don't rush to publish, carefully re-read your manuscript, have colleagues read it too, and address any shortcomings before submission.

Do some research in order to **choose the right journal** to submit your work to. Select a journal that aligns with your research topic and methodology. Consider factors such as the journal's scope, audience, open access policy, impact factor, and relevance to your field.

Craft a well-structured article that follow that specific journal's style. Include essential sections like an abstract, introduction, literature review, methodology, results, discussion, and conclusion. It is essential to follow the journal's guidelines for formatting, referencing, and citation style.

Understanding of peer review is crucial. Submit your manuscript to undergo rigorous evaluation by experts in your field. Be prepared for constructive feedback and revisions. One of the best ways to understand this important dimension of academic publishing is to be a reviewer yourself.

After receiving feedback from reviewers, **address the feedback thoroughly**. Revise your manuscript accordingly. The reviewers may suggest that you look to publish elsewhere and even make suggestions. Always look to enhance your work for clarity, coherence, and accuracy.

Submit your revised manuscript to the journal. Be patient during the review process, remember all of the reviewers are busy people who are volunteers.

If your work is rejected, don't be discouraged—learn from the feedback and improve your paper. You can contact the editors if you do not feel that the feedback is actionable and want more guidance. Persistence and continuous improvement are key.

Description

Workshop will be delivered in three parts.

> 15 minutes: Overview of the state of educational publishing in the field of open, flexible and distance learning. We will review how different journals are scored and ranks, and the decision to publish open access. How journal editors receive and treat your submissions. Why it is important to ensure all of the guidance is carefully adhered to. Things that lead to instant rejection of submissions, and the ethical responsibilities of authors.

30 minutes: Review exercise with participants in small groups reviewing real submissions to evaluate whether they believe they are likely to be accepted by the FLANZ in-house journal, the Journal of Open, Flexible and Distance Learning. Participants are not expected to read entire submissions but rather learn the elimination-review process that most journals use before asking colleagues ot peer review. There will be time given for groups to feedback.

15 minutes: Q&A and reflections from the editors' perspective of what makes for a successful and smooth submission.

Calligratherapy-Conscious Chinese Calligraphy to Calm our Students and Ourselves

Ms Xin Huang, Open Polytechnic, Wellington New Zealand

Ms Leah de Wijze, Open Polytechnic, Wellington New Zealand

This workshop is offered as part of the Professional Development stream to provide educators with an opportunity for self-care and growth thereby enhancing their teaching practice. By engaging in the therapeutic, creative art of calligraphy, educators can reduce stress and anxiety, boost their creative thinking, and learn new techniques for incorporating these skills into their personal and professional lives. This will support educators in their journey to nurture a more holistic and flexible understanding of themselves and of their students.

The calligratherapy workshop also promotes diversity and equity by embracing the rich cultural heritage of calligraphy from the east. It helps educators appreciate cultural diversity and adopt inclusive teaching practices. By welcoming educators of all backgrounds and skill levels, the workshop ensures an equitable learning space that appreciates each person's unique input. This empowers educators to foster inclusive classrooms where every student feels valued, demonstrating a dedication to diversity and equity in education.

Description

Calligratherapy is the meditative practice of Conscious Chinese Calligraphy to manage stress, restore mental balance and order. Calligratherapy combines Carl Jung's theory of optimal wellbeing with the philosophy of the ancient art of Chinese calligraphy to promote this state of calm presence in the world.
Physiologically, the effect of Chinese soft brush calligraphy practice includes a slower heart rate, decreased blood pressure and decelerated respiration. Cognitively, the Chinese character stimulates the intellect as it forms a perfect geometric square pattern which incorporates such features as parallelism, connectivity, and orientation which require spatial and depth perception.

This workshop will be 60 minutes long. During the session, participants will learn how to use breathing exercises and brush strokes to focus their minds, draw Chinese characters and phrases, and create a final calligraphic work to take home.

By the end of the workshop, participants will learn the basics of Calligratherapy and how to utilise this activity in their own classes or as a calming technique with students. They will leave the session feeling refreshed, inspired, and equipped with the necessary tools to approach their work with newfound fluidity, calmness, and intentionality.

All essential calligraphy materials, including ink, brushes, and paper, will be supplied. Please note that registration is mandatory.

Agenda: Calligratherapy Workshop

1. Introduction (5min)
   - Welcome and introduction to the workshop
   - Overview of calligraphy as a therapeutic practice
   - Introduction to calligraphy set and materials

2. Be Present (5min)
    - Guided deep breathing exercises to relax body and mind while staying present in the moment
    - Grounding the body and mind in a meditative state through ink grinding exercise
3. Open Up (25min)
    - Writing individual Chinese characters while unpacking their composition and uncovering meanings behind them.
4. Creation (20min)
    - Create a calligraphy piece and take it home.
5. Conclusion (5min)
    - Recap of the workshop activities and key takeaways
    - Follow-up resources and opportunities for continued practice
    - Feedback and evaluations.

References

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Explore the use of generative AI in portfolio practice

Ms Kristina Hoeppner, Catalyst IT, New Zealand

Artificial intelligence has permeated education and continues to influence all areas of it. Portfolio practice is also affected and the intersection of digital ethics, equity, and personalisation in ePortfolios requires further exploration.
How does artificial intelligence (AI), and in particular generative AI, influence the creation of portfolios? How can educators use generative AI purposefully and successfully with their students to support reflective practice? What happens to (confidential) learner data, where does it go and who can see it? How safe / secure is the tool to use?
In this hands-on workshop, we will explore tools and strategies that educators can employ to work with (or decide against!) AI when creating portfolio activities to answer the above questions and others that participants may have.

Poster

Professional Development in TVET: The TVET Toolkit as a Resource for Practitioners in the Pacific

Mr Robert Okinda, Commonwealth of Learning, Canada

Dr Chand Rajni, University of South Pacific, Fiji

Mr Hussein Mohammed, University of South Pacific, Fiji

Abstract

To build the resilience of Technical and Vocational Education and Training (TVET) in the Pacific, the TVET Online Toolkit (the Toolkit) was developed as part of the partnership for the open distance and flexible learning (ODFL) in the Pacific project funded by the New Zealand Ministry of Foreign Affairs & Trade (MFAT). This is a collaborative project between the Commonwealth of Learning (COL) and the COL regional centre (Pacific Centre for Flexible and Open Learning for Development (PACFOLD) hosted at the University of the South Pacific (USP) to improve access to equitable and quality learning and training opportunities in the nine Commonwealth Pacific Island countries (PICs): Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu through greater use of innovative mechanisms and technology.

The main purpose of the Toolkit is to encourage professional development of TVET practitioners using resources on the Toolkit for self-directed and life-long learning. The micro-learning resources it contains allow practitioners in a range of roles to engage in bite-sized learning about capabilities that interest them whenever and wherever it is convenient for them.

The curated resources include a collection of e-learning modules, case studies, research articles, and templates tailored to the regional labour market needs. The resources were designed through extensive consultations with key stakeholders in the Pacific, including TVET teachers/trainers, leaders, and employers. In practice, the resources can be customized and integrated into various trainer qualifications and professional standards used in different countries and institutions.

A professional development framework was also developed, that enabled analysis of the resources, identification of gaps in the Toolkit, development of a capability mapping tool, and guidelines for future development of the Toolkit. The mapping tool provides a structured way for practitioners to engage with the resources, to help them to self-assess their capabilities, identify the capabilities they want to strengthen, find relevant resources on the Toolkit to help them strengthen the desired capabilities, and think about how they might demonstrate their capabilities to enable micro- credentialling.

A community of practice was established to encourage sharing and collaboration. Coordinators were identified in the PICs to advocate for the Toolkit and to provide mentoring support to the community of practitioners using the resources, coordinated by PACFOLD. This poster presents the Toolkit's components and demonstrates its practical application in fostering the transformation of skill development within the Pacific's TVET landscape.

Alignment of poster to the conference themes:

- Innovative use of technology as a model for using informal learning approaches for continuous professional development of TVET practitioners, leading to micro-credentialling
- Use of technology to sustainably foster flexible learning – TVET practitioners continuously acquire relevant professional skills at their own pace, anytime, anywhere
- Use of technology for increased, equitable, inclusive, affordable, gender responsive, climate-smart and quality skills training for TVET practitioners

References

Technical Vocational Education and Training (TVET) Toolkit for the Pacific. (n.d.). Retrieved from https://pacifictoolkit.col.org/