



blendago

blend-a-go-gy | noun: the art, science, or practice of combining educational activities for the purposes of student learning. Blends might be coherent, or discordant, depending in their design. Properly practiced, blendagogy seeks to optimise the actions of teaching toward more effective learning.

Blendagogy

Editor
Mark Nichols

Don't judge me by my cover

The art and science of blended learning design

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EDITOR

Mark Nichols

BLENDAGOGY:
THE ART AND SCIENCE OF BLENDED LEARNING DESIGN

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Foreword

Professor Norm Vaughan

Blended learning is often defined as the combination of face-to-face and online learning (Williams, 2002). Ron Bleed, the former Vice Chancellor of Information Technologies at Maricopa College, argues that this is not a sufficient definition for blended learning, as it simply implies ‘bolting’ technology onto a traditional course, using technology as an add-on to teach a difficult concept, or adding supplemental information. He suggests that instead, blended learning should be viewed as an opportunity to redesign the way that courses are developed, scheduled, and delivered in higher education through a combination of physical and virtual instruction, ‘bricks and clicks’ (Bleed, 2001, p. 5). The goal of these redesigned courses should be to join the *best features* of in-class teaching with the *best features* of online learning to promote active, self-directed learning opportunities for students with added flexibility (Garnham & Kaleta, 2002). This sentiment is echoed by Garrison and Vaughan (2007), who state that ‘blended learning is the organic integration of thoughtfully selected and complementary face-to-face and online approaches and technologies’ (p. 148).

Over twenty years ago, a survey conducted of e-learning activity by Arabasz, Boggs, and Baker (2003) found that 80 percent of all higher education institutions and 93 percent of doctoral institutions offer hybrid or blended learning courses. Today it would be difficult to find a single institution in higher education that is currently not engaged in some form of campus-based blended education (Figure 1).

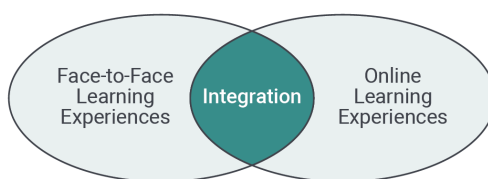


Figure 1: Campus-based blended learning approach

With the continued development and growth of web-based synchronous communication tools Power (2008) argued that the campus-based definition of blended learning needed

to be expanded. He coined the term Blended Online Learning Design (BOLD) to describe the simultaneous and complementary integration and implementation of an asynchronous-mode learning environment (usually based on a learning management system, or LMS) and a synchronous conferencing environment, also termed a virtual classroom. Figure 2 illustrates the distinction between campus-based and blended online learning environments.

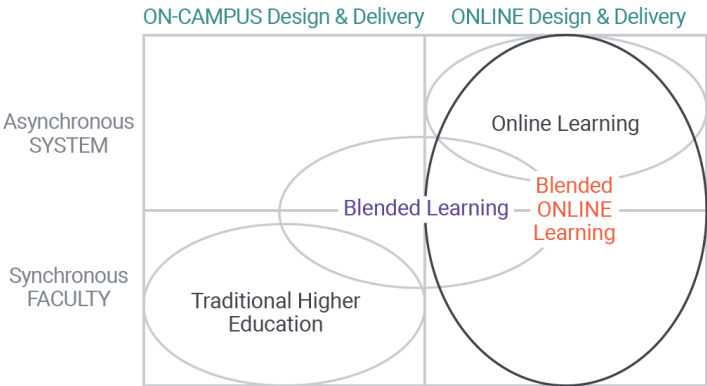


Figure 2: Blended online learning design (image used with permission from Power, 2008)

Campus-based environments have their roots in traditional higher education systems where classes have been delivered by faculty in synchronous lecture settings. Initially, blended learning has been used to complement these synchronous lectures using asynchronous discussion forums and learning management systems such as Moodle, Canvas, and Brightspace. With the advent of synchronous tools, such as Zoom and Microsoft Teams, opportunities have been created to provide students at a distance with both synchronous and asynchronous communication possibilities.

Higher education has, for the most part, been evolving its way forward – sometimes enthusiastically, sometimes hesitantly – in its adoption of online and blended course models. However, the Covid-19 pandemic significantly accelerated this evolution, forcing higher education to become inventive and create an array of new course models to cope with a truly unique situation. Especially challenging was the fact that many of the blended models crafted in response to Covid-19 had to be modified almost on the fly, according to the ebbs and flows of the pandemic. Pelletier et al. (2021, p. 16) indicate that ‘higher education now uses a wide and diverse spectrum of course models – so diverse, in fact, that the terminology can be confusing.’ Irvine (2020, para. 1) adds that

on today’s higher education campus, there are likely a dozen new terms being used to describe different configurations around the modality of courses. *Modality* typically refers to the location and timing of interactions. What used to be a simple binary of

face-to-face or *online* has now become so extremely complex that our ability to understand each other is impaired.

This diversity in blended models combined with a lack of coherent design frameworks has led to confusion and anxiety for ākongā.¹

In order to address these challenges, Nichols (2026) has developed the Blendagogy Framework, which he describes as

the art, science, or practice of combining educational activities for the purposes of student learning. Blends might be coherent or discordant, depending on their design. Properly practiced, blendagogy seeks to optimise the actions of teaching toward more effective learning (p. 8).

This framework aims to make education available, inclusive, scalable, and sustainable. Nichols suggests that these four objectives can be used to guide the design of blended learning models across different contexts. Since blended models must navigate across these four sometimes conflicting objectives, Nichols (2026) has also developed a six-factor matrix of options for decision-making across these four objectives in order to strategically improve the openness of education practices. These six factors include learner activity, educator roles, resources, timetable, assessment, and support services. In addition, Nichols also notes that education takes place at three different levels. The macro level, which consists of institutional policies, technology, and funding influence, shapes model feasibility. The meso level, which involves departmental norms and qualification standards, shapes implementation. And the micro level, where teachers control classroom activities and resource use within macro and meso constraints.

The case studies

This book consists of thirteen case studies that illustrate blendagogy at the macro, meso, and micro levels. Each case study highlights the variability, design considerations, and the importance of aligning the six factors with the four objectives of the Blendagogy Framework.

Macro level case studies

Five case studies focus on the *macro* or institutional level of blendagogy. Some of the lessons learned include the importance of blended learning design, support services, redesigned assessment strategies, and evaluation of blended learning initiatives. With regard to blended learning design, institutions are using a combination of synchronous, asynchronous, and hybrid delivery formats to increase access and flexibility for learners. They also indicated the importance of consistent delivery, resource sharing, and tailored

¹ Student, pupil, learner, protégé. Can be singular or plural.

support to help accommodate diverse learner needs. Institutional support is being provided in a variety of ways to ensure ākongā success. For example, some institutions are providing academic, pastoral, and digital literacy support, including technology access and counselling. Support is also being tailored for regional and remote learners, with services like postal libraries and offline access. The Southern Institute of Technology uses a team approach with kaiako,² a programme manager, and eLearning support for blended and HyFlex teaching. The programme manager supports onboarding, technical issues, and class support, especially for casual kaiako.

At the institutional level, assessments are also being redesigned for online and blended modes with an emphasis on equity and academic integrity. Applications such as Moodle quizzes and online submissions are being used to support consistent assessment across delivery modalities. In addition, ongoing evaluation and adaptation of the blended learning initiatives was noted as being essential for sustainability and scalability. These evaluations also indicated that the flexibility and access of blended delivery improved participation, especially for remote and working learners. Building social connection and clear communication were key to reducing online isolation and increasing learning engagement.

On the flip side, these macro level case studies also highlight the challenges that institutions face with blended learning. These challenges include accreditation, system integration, infrastructure issues, digital access, and literacy. In addition, lack of funding, staff training, and organizational shifts impacted the scaling and sustainability of blended models.

Meso level case studies

The next five case studies describe the *meso* or departmental/ programme, level of blendagogy. The key themes identified in these case studies include course modality, assessment, and student support. All these case studies identified how the redesigned blended courses increased access to post-secondary education for ākongā by providing more flexibility with course scheduling and inclusion through the application of Te Tiriti o Waitangi and Māori models for learning. In terms of assessment, several of the case studies described how the course assignments have become more industry relevant, and the transition to online and project-based assessments reflects real-world applications.

With regard to student support, one case described how they provide a program-level orientation to blended learning for students as well as ongoing support focused on developing digital skills and navigating the institutional online platforms. Another case study indicated that ākongā have access to library, counselling, and digital literacy services & courses, with loan laptops for off-campus learners.

² Teacher, instructor. Can be singular or plural.

Once again, challenges were identified. These include managing the kaiako workload, ākongā engagement, and ensuring that assessment processes are fair and equitable, especially with the rising use of generative artificial intelligence (GenAI).

Micro level case studies

The final three case studies focus on the *micro* or module/ course level, where teachers control classroom activities and resource use within macro and meso constraints. From my perspective, these case studies clearly demonstrate the application of Nichols's (2026) blendagogy framework. The modules/ courses described in these cases attempt to make education available, inclusive, scalable, and sustainable to ākongā through redesigned learner activities, educator roles, resources, timetables, assessments, and support services. One case study documents how a redesigned blended course focuses on experiential and reflective learning activities that allow ākongā to develop cultural, pedagogical, and technological skills. Māori stories and cultural frameworks were included in another course to support inclusive, bicultural education. In terms of educator roles, these case studies demonstrate how kaiako shifted from traditional lecturers to facilitators, which required strong interpersonal and subject knowledge. They adapted their facilitation based on class dynamics, supporting diverse learning needs and group interactions.

Unfortunately, the resources required for these blended courses were often in short supply due to budget constraints, which impacted the scalability and sustainability of the redesigned modules. With regard to timetables, the blended courses provided more flexibility to ākongā through evening and weekend scheduling, but this increased access also increased kaiako workloads.

All three of these micro level case studies highlighted how redesigned assessment activities can help increase ākongā engagement and success. For example, assessments were redesigned to use visualization, automated feedback, and culturally responsive methods to support diverse learners. There was an increased focus on formative assessments to provide ongoing feedback, peer conversations, re-sits, and other methods aimed to improve ākongā achievement and reflect real-world skills.

Support services for the blended learning courses/modules were also highlighted at the micro level. All three of the final case studies emphasized that diverse ākongā benefit from relationship-based, strengths-focused, and culturally responsive methods. Important support services at the course/module level include peer tutors, wellbeing resources, and tailored assistance for learners with barriers. Blended models can improve student success, especially for underrepresented groups, but require significant time, support, and resources.

Recommendation

In closing, I highly recommend *Blendagogy: The art and science of blended learning design* for anyone involved in education for the following five reasons.

- First, all the chapters in this edited book emphasise the importance of *redesigning* institutional programmes, modules, and courses for blended learning. From my perspective, this focus on redesign is essential, as, like Bleed (2001) reminds us, blended learning is not just about adding digital technologies to a traditional course to get the same results. Instead, the focus should be on transforming the educational experience by creating programs, modules, and courses that are available, inclusive, scalable, and sustainable.
- Second, the redesign process does not happen in a vacuum; it requires a guiding framework that can be easily understood and adopted by educators. Nichols's Blendagogy Framework serves this exact purpose through its six-factor matrix for decision-making: learner activity, educator roles, resources, timetable, assessment, and support services.
- Third, this book highlights the importance of linking theory and practice. Rather than just describing the Blendagogy Framework, this book consists of thirteen case studies that provide real-world examples of successful blended learning initiatives and highlight best practices related to blendagogy.
- Fourth, my personal experience with blended learning suggests that a collaborative approach is required to ensure ākongā engagement and success. Each of the case studies in this book emphasizes the importance of collaboration among educators, institutions, and stakeholders in developing and sustaining blended learning programs.
- Finally, I personally appreciate how *Blendagogy: The art and science of blended learning design* emphasises both an art *and* science approach. Both the creative (art) and systematic (science) aspects of blended learning are explored in this book, suggesting a balanced approach to educational design. For me, effective blended learning relies on thoughtful design, alignment with student needs, and flexibility.

I hope you enjoy reading this book as much as I did and that you are able to apply 'lessons learned' to your own educational practice.

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Author profile

Norman Vaughan, PhD is a Professor in the Department of Education at Mount Royal University in Calgary, Alberta, Canada. He has co-edited and authored the books *Digital resilience of ePortfolios during and beyond the COVID-19 pandemic: Lessons for the future* (2025), *Principles of blended learning: Shared metacognition and communities of inquiry* (2023), *Teaching in blended learning environments: Creating and sustaining communities of inquiry* (2013), and *Blended learning in higher education* (2007). In addition, he has published a series of articles on blended learning and teacher development. Dr. Vaughan is the co-founder of the Blended Online Design Network (BOLD), a founding member of the Community of Inquiry Research Group, and the associate editor of the *International Journal of Mobile and Blended Learning*. He is on the editorial boards of numerous national and international journals.

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Glossary

This book makes frequent use of terms in Te Reo Māori, the Māori language indigenous in New Zealand. The following terms are used across this book.

Translations are taken from the Te Aka Māori Dictionary.³ Where more than one definition is given, the one that best matches the use of the term in this book is provided.

- Ako (in its verbal form): To learn, study, instruct, teach, advise.
- Ākonga: Student, pupil, learner, protégé. Can be singular or plural.
- Aotearoa: Te Reo Māori term for New Zealand, 'land of the long white cloud.' In this book 'Aotearoa New Zealand' is frequently used. 'Aotearoa' and 'New Zealand' can be considered synonyms.
- Awhi (in its verbal form): To embrace, hug, cuddle, cherish.
- Hui: Gathering, meeting, assembly, seminar, conference.
- Iwi: Extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory.
- Kaiako: Teacher, instructor. Can be singular or plural.
- Kaiāwhina: Helper, assistant, contributor, counsel, advocate.
- Kaihāpai: Advocate, champion, promoter, supporter, upholder, backer, campaigner, proponent
- Kaimahi: Worker, employee, clerk, or staff. In this book, kaimahi are in contrast to kaiako.
- Kaiwhakahaere: Administrator, boss, director, organiser, manager.
- Kawa: Protocol or custom.
- Kaupapa: Topic, policy, matter for discussion, plan, purpose, scheme, proposal, agenda, subject, programme, theme, issue, initiative.
- Koha: Gift, present, offering, donation, contribution - especially one maintaining social relationships and has connotations of reciprocity.
- Kōrero: Speech, narrative, story, news, account, discussion, conversation, discourse, statement, information.

³ Te Aka Māori Dictionary | <https://maoridictionary.co.nz/>

- Mana: Prestige, authority, control, power, influence, status, spiritual power, charisma.
- Mana motuhake: Separate identity, autonomy, self-government, self-determination, independence, sovereignty, authority - mana (prestige, authority, control, power, influence, status, spiritual power, charisma) through self-determination and control over one's own destiny.
- Mana whenua: (Those with) territorial rights, power from the land, authority over land or territory, jurisdiction over land or territory - power associated with possession and occupation of tribal land. The tribe's history and legends are based in the lands they have occupied over generations and the land provides the sustenance for the people and to provide hospitality for guests.
- Manaaki pūkenga: Those who are specialists or experts in support, hospitality, and care for others.
- Manaakitanga: Hospitality, kindness, generosity, support - the process of showing respect, generosity and care for others.
- Mātauranga: Knowledge, wisdom, understanding, skill - sometimes used in the plural; education - an extension of the original meaning and commonly used in modern Māori with this meaning; knowledgeable person, sage, scholar, intellectual, academic.
- Mihi: Speech of greeting, acknowledgement, tribute.
- Noho marae: An overnight stay at a marae, a cultural location in Māori society.
- Tamariki: Children - normally used only in the plural.
- Tangata Tiriti: 'People of the Treaty,' inhabitants of New Zealand who are not tangata whenua (see also Tiriti o Waitangi).
- Tangata whenua: Local people, hosts, indigenous people - people born of the whenua, i.e. of the placenta and of the land where the people's ancestors have lived and where their placenta are buried.
- Tauira: Student, pupil, apprentice, pattern, example, model, design, draft, sample, specimen, template, skilled person, cadet.
- Te Ao Māori: Māori worldview and culture.
- Te Reo Māori: The Māori language, indigenous to Aotearoa New Zealand.
- Tikanga: Correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention, protocol - the customary system of values and practices that have developed over time and are deeply embedded in the social context.
- Tiriti o Waitangi: The Treaty of Waitangi, a founding agreement between the British Crown and indigenous Māori in New Zealand.

- Tuakana-teina: Literally ‘elder sibling - younger sibling,’ an approach whereby more experienced peers support those earlier in their study journey. Sometimes represented in plural forms: tuākana-tēina.
- Tūhoto (in its verbal form): To join, connect together, knit together, solder.
- Whakamana (in its verbal form): To give authority to, give effect to, give prestige to, confirm, enable, authorise, legitimise, empower, validate, enact, grant.
- Whakamanuhiri: Hosting, entertaining guests.
- Whakatipu: Growing, growth, rearing, raising, breeding.
- Whakawhanaungatanga: Process of establishing relationships, relating well to others.
- Whanāu: Extended family, family group, a familiar term of address to a number of people - the primary economic unit of traditional Māori society.
- Whanaungatanga: Relationship, kinship, sense of family connection - a relationship through shared experiences and working together which provides people with a sense of belonging.

Preface and acknowledgements

Mark Nichols

This book is the result of a three-year term as a Commonwealth of Learning (CoL) Chair, across 2023 to 2026. These years were a time of personal and sector transition.

The first half of my term was defined by the changing landscape of vocational education taking place in New Zealand at that time. Te Pūkenga, the New Zealand Institute of Skills & Technology, was being established as a single institution for vocational education bringing together all of Aotearoa New Zealand's Institutes of Technology and Polytechnics (ITPs) and Industry Training Organisations (ITOs). My proposal for Chair activities was to

explor[e] different modes of teaching and learning for vocational education, and the potential relationships across them... I plan to explore potential modes of teaching and learning that are agreed across representative educators with a view to describing them clearly, modelling their application, and systematising their use.

This would involve extending the work in Nichols & Seelig (2022), presented at the PCF10 CoL conference in Calgary.⁴ One outcome of this was a CoL webinar as part of the CoL Chair series (Nichols, 2024a), followed by further work when it occurred to me that open, flexible, and distance learning (OFDL) was no longer as distinctive as it once was (see Nichols, 2024b). The latter article caught the attention of the editors of the *Journal of Open, Distance, and Digital Education* (JODDE), culminating in a Special Issue of that publication.⁵

The second half of my term as Chair was more complex.

At the start of 2024 I was asked to stand as President of ICDE, the International Council for Open and Distance Education; that same year, I was urged by Tourism New Zealand to bring the 2025 ICDE World Conference to Wellington. Both were too irresistible to

⁴ As an aside, at that same event Open Polytechnic was presented with the CoL Award of Excellence for Institutional Achievement, [Award of Excellence for Institutional Achievement - Commonwealth of Learning](https://www.col.org/about/pan-commonwealth-forum/award-excellence-institutional-achievement/) | <https://www.col.org/about/pan-commonwealth-forum/award-excellence-institutional-achievement/>. While I made it back to New Zealand, the bag with the award and trophy did not! I am grateful to Professor Peter Scott, President of CoL, for later presenting us with a replacement, and cannot help but wonder whose mantle the original sits on.

⁵ See Vol. 2 No. 2 (2025): Reclaiming 'Open' and 'Distance' Education in a 'Digital' world | [Journal of Open, Distance, and Digital Education](https://ojs.uni-oldenburg.de/ojs02/jodde/issue/view/23) | <https://ojs.uni-oldenburg.de/ojs02/jodde/issue/view/23>

turn down, yet the commitment to CoL was already made. Ambitiously, I chose to do both alongside my executive role with Open Polytechnic. I am grateful to Alan Cadwallader, Executive Director of Open Polytechnic at that time, for generously enabling me to stretch across both ICDE and CoL. I had already committed to an edited book for release at the ICDE conference (Nichols, 2025), so this book also had to find its place alongside that effort. Fortunately, all this parallel activity aligned nicely with what I was hoping to achieve in this work; not all self-citations in this Preface are for reasons of vanity!

The focus of my second half as CoL Chair was an investigation into blended learning, consisting primarily of two activities: a regional event, and completing ‘an edited book featuring blended learning models for vocational education in New Zealand, including a model and synthesis which will be transferable across the Commonwealth.’ By this time, the ITP sector was well into a change *disestablishing* Te Pūkenga in favour of a return to autonomous vocational education providers. The transition is still in progress as this Preface is being written, and case studies were drafted in this context.

The regional event took place in Wellington on the 21st August 2025, and I was fortunate to have the Honorable Penny Simmonds, Minister of Vocational Education, open the event. A virtual keynote was provided by my dear colleague Professor Norman Vaughan, Professor in the Department of Education, Faculty of Teaching and Learning at Mount Royal University and lead author of *Teaching in blended learning environments* (Vaughan et. al., 2013) and *Principles of blended learning: Shared metacognition and communities of inquiry* (Vaughan et. al., 2023). Attending the workshop were the lead authors of the case studies in this book, alongside representatives from the New Zealand Qualifications Authority and the Ministry of Education. I mention the themes from this workshop in the Introduction chapter of this book.

Authors were self-selecting from a convenience call for blended learning practitioners across the ITP sector via Te Pūkenga. As you will see, the range of settings is a particular strength of this book. Authors were provided with an exemplar chapter and templated guidelines to ensure each case study addressed similar concerns. Authors were asked to prioritise general description over detail. The rationale was to ensure all followed the same format, making comparison possible, and testing a means for evaluating the six factors of ākongā activity, kaiako activity, resources, the timetable, assessment, and institutional ākongā success services. You can learn more about each author in their profile, at the end of each chapter.

While this book is intended for an international audience, several terms from Te Reo Māori⁶ are used throughout (see the Glossary). Those seeking to generate Blendagogy Framework case studies in their own contexts are invited to apply their own indigenous

⁶ The Māori language, indigenous to Aotearoa New Zealand.

contexts. I trust that the terms ākonga⁷ and kaiako⁸ will become familiar to readers as they go from case study to case study. Te Reo terms are defined by footnote in the first instance of their use.

Ever mindful of due dates I am happy to at last, albeit well behind time, present this book to the Commonwealth of Learning and the world. It was originally due end 2025, then mid-2026, and is now complete in time for the Flexible Learning Association of New Zealand (FLANZ) conference in October 2026. I am grateful to each author for their energy and perseverance with me as their chapters awaited editing and feedback; the value of this book is based on these authors, whose work greatly extended my thinking about blended learning practice and strategy.

And, of course, I must provide a full expression of gratitude to the Commonwealth of Learning. Their work is vitally important to making education more available, inclusive, scalable, and sustainable across a broad range of settings. Personal thanks here belong to Dr Jako Olivier, Adviser Higher Education and facilitator of the CoL Chair programme, for his generous engagement, patience, and commitment to this book's success.

As a final note, I want to make explicit that the vast majority of my work across this and other publications over the last few years is done in personal time. I have benefitted generously from an employer very supportive of my activities, so to be clear this is not a criticism; I have had every encouragement and have enjoyed the learning and relationships established along the way. This note is solely intended to encourage others to pursue research conceived from intrinsic motivation.

Some disclaimers:

- Any errors in this book are likely mine. Errors in referencing are *certainly* mine, and I trust the reader is not distracted by any that might still be present.
- Stylistic errors are also mine. I wrestle with edited books whose editors look to have done little more than sew together chapters of different shapes, styles, and substance in a patchwork jarring for the reader as they go from one chapter to the next. Much of my work in editing this book has been to ease the differences across each chapter such that the overall format and flow are at the least similar.
- This book is primarily designed to be *readable*. It may not be scholarly enough for some; but this book isn't written primarily for the scholarly community. Instead, it's written as an accessible reference for those with a genuine interest and curiosity in blended learning and its potential.
- I mention in this Preface that authors 'were provided with an exemplar chapter and templated guidelines to ensure each case study addressed similar concerns.' Despite this, case studies vary in terms of their coverage and breadth. As you will see in the

⁷ Student, pupil, learner, protégé. Can be singular or plural.

⁸ Teacher, instructor. Can be singular or plural.

Conclusion, this has turned out to be beneficial for the next steps of the Blendagogy Framework journey.

I trust effort invested in bringing this book to you results in better blending. That's what Blendagogy is ultimately all about.

Dr Mark Nichols
August 2026.

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Introducing the Blendagogy Framework: Four objectives, six factors, three levels

Mark Nichols

“The Blendagogy Framework this book establishes is developed to encourage effective design of blended learning models. The proposition of the Blendagogy Framework is that blended models should optimise four strategic objectives, be built around six descriptive factors, and align across three levels of context.”

Context

Blended learning is nothing new. At the turn of the new Millenium various books talked of the bringing together of face-to-face and online possibilities for teaching and learning, increasing choice and flexibility for ākongā,⁹ and of extending traditional approaches through e-learning. Ideally, blended learning is a ‘thoughtful infusion’ (Garrison & Vaughan, 2007, p. 5), the future of which ‘will very much depend on the pace of change in your organization and the level of commitment to doing things differently’ (Thorne, 2003, p. 133).

Blended learning is largely the result of the e-learning movement of the mid-1990s that accompanied the public rush to the internet. Its potential is nicely described as ‘the possibility of changing our attitudes not only as to *where* and *when* learning takes place, but in terms of *what* resources and tools can support learning and the *ways* in which these might be used’ (Littlejohn & Pegler, 2007, p. 2). In terms of the objectives for education I’ve long advocated, blended learning is a key means to improving the availability, inclusiveness, scalability, and sustainability of higher education (Nichols, 2024a).

So, blended learning is not new. But neither is it a single means of teaching and learning. Blended models are always shifting, improving, adapting to their environments as member species of the same genus. As we will see from the case studies in this book, there are multiple permutations of face-to-face and online models for blended learning. Increasingly, thanks to our post Covid-19 familiarity with online video-based

⁹ Student, pupil, learner, protégé. Can be singular or plural.

communications and unprecedented levels of IT literacy, contemporary blends are less face-to-face alongside e-learning than they are fully integrated through the likes of Teams and Zoom.

Early books about blended learning were heavy on design thinking. Thorne (2003) has a chapter on *Designing Blended Learning*. Garrison & Vaughan speak of blended learning as ‘a coherent design approach’ (2007, p. x) based on the Community of Inquiry (CoI) model, a position maintained in Vaughan et. al. (2013, 2023). We will examine the CoI shortly; for now, it is important to note that despite the emphasis on design, not all blended learning is coherent, or works well.

You have, no doubt, at some stage in your education, encountered the ‘Frankencourse.’¹⁰ Blended learning can be easily done, *badly*. Often, design thinking is hijacked by an individual’s enthusiasm, or a mismatch to organisational systems, or limited funding, or the limitations of pedagogical or technical knowledge from the one designing the blend. One of the purposes for this book is to encourage those seeking blended learning solutions to design them *well*, by providing a framework for developing blended models. Designing blended learning well is the focus of Blendagogy.

The rise of the blend

The last decade has seen both considerable growth in blended learning, and an incredible fragmentation of education models. Covid-19 lockdowns coincided with the availability of synchronous video solutions and fibre connectivity, at least in New Zealand, now making streaming, live communications an expectation for online and distance education. The classic distinction between distance and on-campus education is now very much in our rear-vision mirror, as education models motor ahead into online-rich, materials-supported, and engagement-oriented highways. Former models of distance education, moving in trajectory from print-based to asynchronous online models, now join the same road as the former on-campus models, which have moved from lecture attendance to synchronous and recorded online classes.

Blended learning increasingly brings together the asynchronous distance and synchronous on-campus models that were once irreconcilable extremes. Blended models seek to provide learners with choice and flexibility which, advocates claim, assist

¹⁰ Online this term is attributed to Tom Kuhlmann [Avoid the Curse of the Frankencourse | The Rapid E-Learning Blog](https://blogs.articulate.com/rapid-elearning/avoid-the-curse-of-the-frankencourse/) | <https://blogs.articulate.com/rapid-elearning/avoid-the-curse-of-the-frankencourse/>, however I first heard it in 2010 at *Blended Learning Conference* held at the University of Queensland, in partnership with the University of Hertfordshire. Note that, in his Foreword, Vaughan talks about blended learning implying “bolting” technology onto a traditional course.’ The term ‘bolting’ immediately takes me to the classic image of Frankenstein’s monster.

learners in accessing and scheduling study within a richer education experience. The future of education models is destined to be blended.

Blended models are already ubiquitous, with examples across all institutions I am familiar with. According to The Business Research Company 2026 report, blended learning is also growing. Service revenues are increasing at a compound annual growth rate of 11.3%, and so blended learning is tipped to move from an overall market size of \$US27.96 billion in 2025 to \$US48.31 billion in 2030.¹¹ These changes are significant, particularly given blended models such as Hyflex (Beatty, 2019; Lee, 2022) and Bichronous Online Learning (Martin et. al., 2020), which combine the reach of traditional distance learning with traditional intramural approaches. The affordances of these approaches provide a richness and convenience from an ākonga perspective. The availability of learning materials, on hand at any time and any place, coupled with the explanations of an expert, form a potent blend of availability and inclusiveness.

Frameworks for blended learning

The last two decades have seen various models for blended learning emerge.

The Community of Inquiry

The Community of Inquiry (CoI) framework was developed by Garrison and colleagues at the turn of the Millenium. The framework is internationally renowned for describing academic development in ways familiar to educators, and it enjoys both an impressive scholarship and an enduring longevity.¹² The framework is based on three presences, which together make up the educational experience as shown in Figure 1.

These presences are as follows, definitions drawn from the Community of Inquiry website:¹³

- **Social presence:** ‘the ability of learners to project their personal characteristics into the community of inquiry, thereby presenting themselves as ‘real people.’
- **Cognitive presence:** ‘the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication.’

¹¹ [Blended Learning Market Size, Share and Forecast Report 2035 | https://www.thebusinessresearchcompany.com/report/blended-learning-global-market-report](https://www.thebusinessresearchcompany.com/report/blended-learning-global-market-report). The overview notes that ‘The blended learning market consists of revenues earned by entities by providing services such as student tracking, learning management, and professional development and training. The market value includes the value of related goods sold by the service provider or included within the service offering.’ As such, it is not a measure of university provision.

¹² See [The Community of Inquiry | https://www.thecommunityofinquiry.org/](https://www.thecommunityofinquiry.org/)

¹³ [The Community of Inquiry: About The Framework | https://www.thecommunityofinquiry.org/framework](https://www.thecommunityofinquiry.org/framework)

- **Teaching presence:** ‘the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educational worthwhile learning outcomes.’

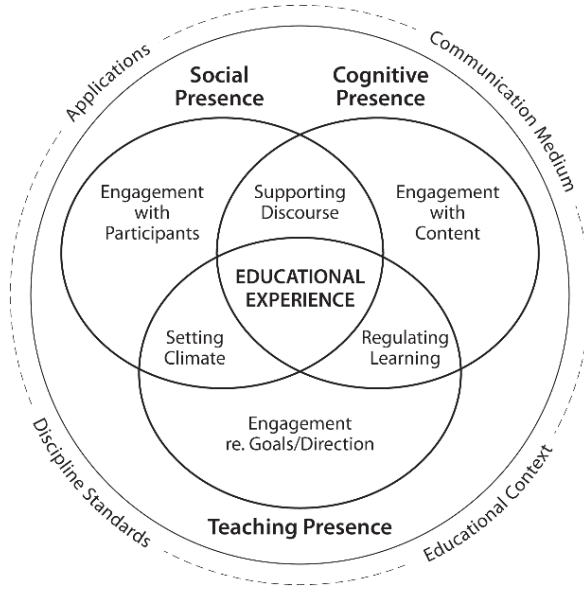


Figure 1: The Community of Inquiry framework. Image used with permission from the Community of Inquiry website, <https://www.thecommunityofinquiry.org/coi>

The model has its critics; suffice for the purposes of this book, two are its assumption of a collaborative-constructivist approach to teaching and learning, and that the entire learning climate is determined within the actual course experience. The emphasis on shared metacognition (Vaughan et. al., 2023) is not universal across education, particularly across the vocational settings described in this book. Differentiating between cognitive and teaching presences can also be somewhat difficult, and so the model seems best suited for higher-level studies where dialogue and the negotiation of meaning are central to learning.

These reservations expressed, Vaughan et. al. are leading references in blended learning emphasising the design of a community of enquiry, with an emphasis on deep learning. The seven principles of blended learning are an important reference point for all blended learning practitioners, even where community, discourse, and shared metacognition are not the primary learning objectives. These seven principles are:

1. Design for open communication and trust that will create a learning community.
2. Design for critical reflection and discourse that will support inquiry.
3. Establish community and cohesion.

4. Establish inquiry dynamics (purposeful inquiry).
5. Sustain respect and responsibility for collaboration.
6. Sustain inquiry that moves to resolution and shared metacognitive development.
7. Ensure that assessment is aligned with learning outcomes and growth for all students (Vaughan et. al., 2023, p. 23).

Component and teaching approach blending

Littlejohn & Pegler (2007) suggest deliberate four components for any blend that might be combined in different ways. They suggest space, time, media, and activity as the components, all of which can be described from the ākonga and kaiako¹⁴ perspectives.

Component	Ākonga perspective	Kaiako perspective
Space	Whether ākonga can meet face-to-face or online	The physical and virtual spaces available
Time	Whether ākonga are available synchronously or asynchronously	Time availability and zones, and cohort limitations
Media	Which media tools can be accessed	Available resources and discipline suitability
Activity	How these are determined, whether group or collaborative tasks are involved, level of autonomy	Decisions about learning activities, which may include putting components of learning into the hands of ākonga

Table 1: The four components of a blend, based on Littlejohn & Pegler (2007)

There is clearly some interdependence across these components, which look to be more an exploration of constraints than a means of designing blended learning models. Later they propose blended learning be defined in terms of the forms of teaching they represent, citing Reynolds et. al. 2004:

1. Learning as behaviour: a focus on learning demonstrated skill.
2. Learning as understanding concepts: a focus on learning ideas through discussion.
3. Learning as knowledge construction: a focus on giving ākonga activities with which to establish their own understanding, which could be synchronous or asynchronous
4. Learning as social practice: a focus on community and learning together, and from one another.

'Blending,' in the frame of Littlejohn & Pegler, is a process of design expressed through a learning design sequence map or sequence of learning plans, useful for planning each lesson, module or topic, but this is not the right level of granularity for planning a cohesive course experience or approach to a programme of study. Also, while there is some acknowledgment of the restrictions that might determine choice of space, time,

¹⁴ Teacher, instructor. Can be singular or plural.

and media, significant agency is given to the kaiako. This suggested agency is very problematic, as we will see in this book; designing blended learning requires a careful consideration of the context in which education takes place.

Contemporary models

The HyFlex and Bichronous models mentioned earlier are very useful points of reference for blended learning design. Both tend to include streamed classroom sessions that are also recorded for later reference, and both also have characteristics of frameworks based on specific principles.

HyFlex, a portmanteau of hybrid-flexible, is a model promoted by Beatty (2019). The approach connects online and on-campus learners into an integrated learning experience that can serve them both at once. Beatty sought to move beyond traditional forms of blending such that traditional on-campus learners would not be ‘abandoned.’ HyFlex classes enable students to attend face-to-face or online, synchronously or asynchronously, through a single model; the hybrid component combines ‘online and face-to-face teaching and learning activities,’ while the flexible element let’s ākonga ‘choose whether or not to attend face-to-face sessions ... with no “learning deficit”’ (p. 35). HyFlex has an impressive international scholarship.¹⁵

Bichronous Online Learning brings together asynchronous and synchronous forms of education into a single model, ‘where students can participate in anytime, anywhere learning during the asynchronous parts of the course but then participate in real-time activities for the synchronous sessions’ (Martin et. al., 2020, para. 6). There are multiple ways of designing Bichronous Online Learning, with practitioners describing it as ‘the best of both [asynchronous and synchronous] worlds’ (para. 18). Best practices recommended by practitioners include optimising ‘course design and structure, course resources, discussion forums, instructor presence, and timely assessment and feedback’ (para. 21).

Of course, many other models exist, and the various names used to describe them often gloss over the core similarities that they have. Beatty (2019) lists FlexLearning; Converged Learning; Blendflex; Flexible Hybrid as a sample of types. Many of these overlap considerably and are often defined in terms of specific technologies; subsequently, they date very quickly and are not always transferable. More transferable are the four fundamental values of HyFlex: learner choice, equivalency, reusability, and accessibility (Beatty, 2019, p. 29).

Rather than getting caught up on terminology, this book proposes blended learning as an overarching term for a broad variety of models that include HyFlex and Bichronous

¹⁵ See [Research Bibliography – HyFlex Learning Community](https://www.hyflexlearning.org/bibliography/) | <https://www.hyflexlearning.org/bibliography/>

across its reach. Describing *how a model works*, rather than attempting a specific label, is preferable.

A call to descriptive practice, and the needs of practitioners

The range of terminology used to describe different approaches to education is bewildering. Elsewhere (Nichols, 2024) I have proposed that rather than attempting to lock ourselves into any terminology we instead promote all forms of education that maximise its availability, inclusivity, scalability, and sustainability. The issue with terminology, such as ‘online,’ ‘flexible,’ ‘HyFlex,’ or even ‘blended’ is that it tends to obscure, rather than clarify, how teaching and learning takes place. Description, rather than labelling, helps practitioners to better share practice and consider differences.

In August 2025, in response to a call for case studies now included in this book, a group of blended learning practitioners from Aotearoa New Zealand gathered for a one-day workshop to discuss blended learning models and challenges. The main part of the workshop involved each participant providing an overview of the blended learning model they apply, later contributed as a case study for this book. Once all presentations were concluded, participants were asked to share the themes and challenges they had observed across the day’s proceedings.

The discussion on blended learning in vocational education from the workshop highlighted several critical themes and questions.

- One prominent theme was the diversity and flexibility of blended learning models. Participants noted the wide range of interpretations of what constitutes ‘blended learning’ and emphasised the need for coherence in terminology to avoid confusion and improve conversations around shared practice.
- Another key theme was the importance of connectedness, across ākonga and communities of learning, in the form of whanaungatanga,¹⁶ relationships. Connectedness was considered a vital component of successful blended learning.
- The integration of indigenous knowledge, mātauranga Māori¹⁷ in the New Zealand context, was also recognised as a strength in some examples. Incorporating indigenous knowledge systems was admired by participants.
- The impact of technology was also a significant point of discussion. Advancements in technology post Covid-19 have given great energy to synchronous online learning, and so blended learning continues to extend its reach and evolve. Questions were raised about the definition of face-to-face learning in the context of digital platforms like Zoom.
- Collaboration emerged as a crucial element for developing blended learning resources. Clear communication between subject matter experts (SMEs) and instructional designers was highlighted to ensure the development of fit-for-purpose resources.

¹⁶ Relationship, kinship, sense of family connection - a relationship through shared experiences and working together which provides people with a sense of belonging.

¹⁷ Māori knowledge, wisdom, understanding, skill - sometimes used in the plural; see Glossary.

- The importance of industry connections and the explicit integration of industry needs into blended learning models was raised.
- The commitment of educators, and the need for institutional support and infrastructure to sustain innovation, were emphasised (this was to become a major theme across the case studies, as you will see.)
- Finally, the supportive learning community evident in the workshop was identified as essential for the success of blended learning. It is not often that blended learning practitioners are able to come together to share practice.

The discussion highlighted a difficult truth; in many institutions, those adopting innovative blended learning models are frequently *individuals*, basing their approach on their own experience and best judgement. Others were aligned with academic programmes or institutions with clear commitments to blended learning. Those able to work with a team of experts, for example in the creation of course materials, were deemed fortunate. The challenges faced across these practitioners were mostly a reflection of whether the model reflected a model applied across their institution, aligned with a model used across their academic programme, or stood alone within their single course.

The Blendagogy Framework

And so, *blendagogy*, my own portmanteau of blended, and pedagogy. From the cover of this book you can see that

blendagogy is the art, science, or practice of combining educational activities for the purposes of student learning. Blends might be coherent, or discordant, depending on their design. Properly practiced, blendagogy seeks to optimise the actions of teaching toward more effective learning.

You can also see that not all blends *work*. The cover is intended as a metaphor!

The Blendagogy Framework this book establishes is developed to encourage effective design of blended learning models. The proposition of the Blendagogy Framework is that blended models should optimise four strategic objectives, be built around six descriptive factors, and align across three levels of context.

The Blendagogy Framework consists of four objectives, six factors, and three levels.

The four objectives of blendagogy

The four objectives are those I have sought to champion in my time as President with ICDE, the International Council for Open and Distance Education: education models should aim to make education available, inclusive, scalable, and sustainable. The first two are important from an ākonga perspective, the latter two from an institutional one.

- *Available* education gives students the ability to access learning of interest to them when and where it suits them. Availability is considered in terms of when an enrolment period starts and ends, the flexibility afforded students within those dates, and the range of programme options available. Included here are level and subject choice, and enrolment and programme flexibility.
- *Inclusive* education makes it increasingly possible for anyone to participate, whether challenges of disability, geographic remoteness, life commitment, representativeness, or other special study need are faced.
- *Scalable* education is able to cater for a broad range of demand and reach, whereby an increase in demand or extended reach can be catered for in a time- and cost-efficient way, and a reduction in demand can be temporarily absorbed.
- *Sustainable* education is characterised by a low carbon footprint, long-term financial viability, alignment with demand, and social relevance alongside a quality, reliable service. Where education is government subsidised, sustainability also considers the institution's alignment with funders' priorities (Nichols, 2025, p. 151).

Blended models must navigate across these four sometimes conflicting objectives. I suggest a matrix of options for decision-making across these four objectives in Nichols (2025), to strategically improve the openness of education practices.

The six factors of blendagogy

The six factors together provide a well-rounded view of how a blended model functions in terms of teaching and learning. They encourage a concrete description of the actual dynamics of the blended model, improving both design and sharing of practice as points of commonality and difference can be better discerned. The six factors are:

1. *Ākonga activity* – what do ākonga experience? How do they experience learning? Put another way, what are they expected to do, to learn?
2. *Kaiako activity* – what are the various roles educators are expected to perform? What are the actual tasks they do?
3. *Resources* – what learning materials are provided? How are they developed, maintained, and distributed?
4. *Timetable* – what are the hours of learning, and across what period of time? What are the asynchronous and synchronous dynamics in play?
5. *Assessment* – what are the assessment tasks, and who prepares and marks them? How are assessments used as learning opportunities?
6. *Institutional ākonga success services* – what are the additional roles that support ākonga? How accessible and comprehensive are they?

Each case study in this book is written around these six factors. Authors were asked to provide around 400 words to each of the six factors, to give a well-rounded and descriptive view of the model they work to. The same format can be used to provide a narrative of any model being designed, enabling better comparison and highlighting points of difference.

As an aside, the six factors show why it is so difficult to make generalities about what ‘works’ in blended learning. Models are highly contextual and have very different dynamics; subsequently, approaches that improve ākongā outcomes are seldom directly transferable to other models.

Three levels of blendagogy

It is helpful to think about education as taking place across three different levels of activity: that of the institution, the qualification, and the course or module (Nichols, 2020), which together make up the macro, meso, and micro levels of blended learning practice. Any blended model must be compatible across these three levels, or else risk working against its operational context.

The macro, institutional level is the level of policy, overall budgeting, and formally available and supported technologies. These both enable and restrict blended models; even if blended models are not deliberately designed at this level, macro decisions will shape their effectiveness and longevity. Institutional approaches to timetabling; choice of learning management system, LMS, or virtual learning environment, VLE; centrally funded and supported technologies; any norms around the kaiako to ākongā ratio; quality systems; and departmental budgets together set the backdrop for all education provision.

The meso level is that of the individual school, department, or qualification. As with the macro level, these are often outside of the control of individual kaiako. There may be qualification-wide assessment practices, certain workload and role expectations, and norms related to tutorial support and teaching and learning resources. As with the macro level, the meso level shapes what can and cannot easily be achieved in a blended model designed by kaiako.

The micro level is the one that individual kaiako can most control, even though their actual decisions are shaped by the macro and meso levels. It can generally be thought of as the level at which teaching and learning take place. Teaching activities, group activities, assessment, and the preparation of resources are typically the sole domain of kaiako; often unique technologies are also implemented at this level. Many approaches to blended learning are shaped to suit the specific subject being taught, alongside the pedagogical abilities of the kaiako and whatever support their department or institution is prepared to offer them.

The discerning reader will have noticed that the three levels here affect the six factors differently. Working backwards from the list of six factors, institutional ākongā success services are very much a macro level consideration. Timetables and much of the kaiako activity are also largely determined at the macro level. The meso level will likely have a heavy influence on assessment and ākongā activity; at the micro level, kaiako influence what they can within these constraints. The design of blended learning models is largely shaped by the macro, meso, and micro mould available to those designing the model.

The design of this book

This book centres on the case studies, which are designed to illustrate some central truths around blended learning:

- Blended learning models are highly variable.
- Blended learning models can be compared by describing the six factors behind each.
- Macro, institution; meso, qualification; and micro, teaching and learning contexts are all essential for the design and overall success of a blended model.
- Blended learning models are best when carefully designed, which involves optimising the six factors across the three levels, set within the four overall objectives.

Each case study was prepared by a practitioner or group of practitioners with the objective of describing the dynamics of their model using the six factors. Each adopted their own style and engaged with the six factors differently, both because their models differed and their sense of pedagogy tended to determine the emphases they bought. In my view, this is a strength; the different styles enrich the narrative and have helped further refine the model as will be seen in the concluding chapter.

The 14 case studies that form the heart of this book are presented in three categories, clustered according to which of the three levels they best illustrate.

- The macro level, illustrating institutional issues: NorthTec's cross-network delivery pilot; Otago Polytechnic's learning hubs and blended delivery; the Primary Industry Training Organisation's (PITO's) New Zealand Certificates in Agriculture (Dairy Farming); and three from Southern Institute of Technology (SIT): their micro-credential in Geographic Information Systems, the SIT New Zealand Certificate in Learning Design (Level 6), and SIT's Master of Applied Health Science.
- The meso level, where departmental or qualification matters are more apparent: Ara Institute of Technology's New Zealand Certificate in Adult Teaching (Level 5); Future Skills's applied management degrees; Open Polytechnic's Bachelor of Teaching (Primary); Otago Polytechnic's Post-Graduate Certificate in Learning Design (Level 8); and Toi Ohomai's New Zealand Diploma in Supply Chain Management (Level 6).
- The micro level, where specific approaches to teaching and learning are presented: Whitireia & WelTec's blended learning for first-year programming; Wintec's teaching

of bioscience in the Bachelor of Nursing, and courses within Wintec's Bachelor of Social Work.

Each case study ends with a brief editor's comment related to the model described in the chapter.

This introductory chapter sets the scene. Blended learning has been with us for at least 30 years, shaped by the possibilities of technology and fragmented across the many institutional contexts within which it is practiced. Recent changes toward streaming video, a population with better access and familiarity with streaming and online media, and the recent experiences of Covid-19 lockdowns have done much to propel new approaches that were not possible even a decade ago. Older paradigms with on-campus and distance education models as different extremes of practice are now defunct; models such as HyFlex now bridge across both of these, forcing new ways of thinking, practicing, and, for want of a better term, institutional collaboration and competition.

Despite its promise, blended learning is not always successful. Ideally, blended learning models are designed to make education more available, inclusive, scalable, and sustainable. Toward these objectives, model makers need to align ākongā activity, kaiako activity, resources, the timetable, assessment, and institutional ākongā success services with the opportunities made available by the macro, institutional; meso, qualification; and micro, teaching and learning levels of context.

The concluding chapter will draw together the four objectives, six factors, and three levels into a coherent set of considerations for designing blended learning solutions. It is my hope that, by the time you reach the concluding chapter having enjoyed a rich variety of blended learning case studies, you will have a fresh appreciation of the challenges and possibilities of designing optimal blended learning in your own situation. This book was prepared at a time when artificial intelligence, AI, was disrupting education at the fringes of blended learning practice. The Blendagogy Framework should prove robust enough for designers to incorporate the potential of AI across the macro, meso, and micro level contexts.

Design. That is what blendagogy is all about.

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Author profile

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Case studies:

THE MACRO LEVEL

CASE STUDY MACRO.1

Cross-network delivery collaboration pilot: NorthTec and Open Polytechnic

Lisette Buckle | Rachael Kelleher | Doug Standring

“The transition of teaching kaiako to more of a facilitated learning model has presented notable challenges. This shift diverges significantly from traditional delivery methods, where akonga progress along a uniform timeline of skill acquisition.”

Context

This case study describes a pilot blended delivery partnership between NorthTec, a regional Institute of Technology and Polytechnic (ITP) serving Te Tai Tokerau Northland, and Open Polytechnic, New Zealand’s national provider of vocational distance learning. Both were business divisions of the New Zealand Institute of Skills and Technology (NZIST)¹⁸ at the time of the pilot. The initiative was launched in early 2024 to explore whether a flexible, online learning model combined with local support could sustain and extend access to vocational education in Northland.

The pilot emerged from sector-wide goals for scalable, inclusive provision and applied lessons learned from previous collaborative arrangements including from eCampus, a former alliance of tertiary providers that shared qualifications via a common online platform. While eCampus demonstrated the potential of shared delivery, it also highlighted limitations, insights that informed the design of the Cross-Network Delivery (CND) model.

¹⁸ At the time of writing, the New Zealand Institute of Skills and Technology (NZIST) was formally known as Te Pūkenga. Both Open Polytechnic and NorthTec are business divisions before Open Polytechnic becomes an independent polytechnic again in 2026, whilst NorthTec remains part of NZIST.



Figure 1: High-level view of the CND model functional responsibilities

From 1 January 2026, Open Polytechnic will return to its earlier status as a stand-alone ITP whilst NorthTec remains part of NZIST. Alongside Open Polytechnic's core role, it has an expanded remit to provide enabling services to members of a new ITP Federation. As well as delivering immediate benefits to the partners and learners, this collaborative pilot provides valuable lessons and insights for variants of the model in the future state of the ITP sector.

Prior to and during its incorporation into NZIST, Open Polytechnic committed to exploring how its distributed learning capabilities and services might be deployed to support partners; enhance local, that is regionally centred, provision; and increase network efficiencies. The CND model described here sits in a continuum of possible blended delivery models in this context. In the CND model, local ākonga engage and enrol with NorthTec and receive general administrative and learning support via the NorthTec campuses, while studying online and completing assessments with Open Polytechnic.

Prospective learners in NorthTec's Northland region already have the option of 'online only' study with Open Polytechnic, which enrolls nearly 40,000 learners nationally in line with the geographic distribution of population. The CND blended model tests the assumption that there is a different, possibly under-served, segment of ākonga: those who are willing to study online if no other option is available, but who prefer connection with, and support from, a local campus.

The CND model enables NorthTec to expand its portfolio with a suite of sub-degree business programmes that might otherwise be difficult to offer sustainably. Open Polytechnic charges a cost recovery fee for service; the scalability of its distance model means it can include large numbers of partner learners in its standard monthly course offerings with comparatively limited incremental costs. Enrolments thus far are positive and are increasing in programmes that would not otherwise have been offered by NorthTec. Importantly, the programmes are attracting a younger demographic than the Open Polytechnic average.

While the CND model can continue to operate in its current form, fully operationalising the model more broadly will require further system and process refinement and automation. Over its two years of operation the pilot has delivered positive outcomes that suggest it has potential to be deployed more widely, as the business divisions of NZIST assume various degrees of autonomous operation over 2026.

A high-level view of the functional responsibilities within the CND model can be seen in Figure 1 on the previous page, noting that local support decisions are determined by NorthTec.

Description

Ākonga activity

NorthTec manages the initial part of the learner journey, including marketing, pre-enrolment advice, and guidance. This local engagement allows NorthTec to connect with its community in ways Open Polytechnic cannot. Kaimahi¹⁹ provide personalised advice on study options, workload expectations, and eligibility for allowances, helping ākonga make informed decisions about part-time or full-time study. These conversations often lead to adjustments in course selections to ensure study fits with lifestyle and whānau²⁰ commitments.

Once enrolment is confirmed, ākonga receive a welcome letter from Open Polytechnic. This letter outlines course details, login instructions for the learner portal MyOP and the learning management system (LMS) iQualify. They also receive key contacts for academic and technical support. NorthTec invoices ākonga for fees and manages any changes such as withdrawals or transfers.

Each ākonga is allocated a local support person who contacts them to explain the local support available and becomes their regular point of contact for learning support and pastoral care. Services vary by local campus, but the intent is consistent: to provide reassurance and guidance throughout the ākonga journey. This local presence helps clarify expectations and reduces anxiety, particularly during assessment periods.

NorthTec ākonga engage directly with Open Polytechnic online course materials as part of their learning. Courses are designed for asynchronous (self-paced) independent learning, providing a narrative scaffold for ākonga within a deliberate overall course structure. Each course has a study plan to guide ākonga as to expected progress to keep them on track, though they can choose to work to their own schedule provided assessment deadlines are met. Assessments are submitted online via iQualify, and a small number of courses have exams which are done in person rather than online.

Ākonga complete formative tasks as they progress through the materials to reinforce learning and to help them prepare for summative assessments. Automatic real-time feedback is given as formative tasks are completed, and in many cases a model answer is provided.

Announcements are posted in iQualify Talk Channels by Open Polytechnic course leaders. Ākonga can post questions in Talk Channels when they need support and contact their Course Leader by email or phone. Alternatively, NorthTec ākonga preferring to engage with someone face-to-face can choose to engage with NorthTec

¹⁹ Worker, employee, clerk, or staff. In this book, kaimahi are in contrast to kaiako.

²⁰ Extended family, family group, a familiar term of address to a number of people - the primary economic unit of traditional Māori society.

support services. The volume of interaction with NorthTec's face-to-face kaiako increases when ākonga are preparing for assessments, as the facilitator de-escalates the assessment anxiety many ākonga experience. These kaiako are also the motivating contributor encouraging ākonga to meet submission deadlines.

Kaiako activity

Open Polytechnic Course Leaders provide academic support by distance, addressing course and assessment-related queries. They communicate with ākonga primarily via Talk Channels in iQualify, posting weekly announcements and responding to those questions ākonga ask across both public and private Talk Channels. Course Leaders can be contacted in a variety of ways: through Talk Channels in iQualify, by email, or phone. Open Polytechnic Course Leaders are also often the primary contact about things such as withdrawals, transfers and support services. Sometimes course leaders may notice that ākonga need additional support and suggest they access additional specialist support such as disability services or learning support.

A challenge for Open Polytechnic kaiako has been identifying whether ākonga are Open Polytechnic ākonga or enrolees with NorthTec. Not getting this right can create situations where ākonga are referred to Open Polytechnic teams when they should be referred to NorthTec.

NorthTec kaiako play a complementary role focussed on local engagement. They provide pastoral care, learning support, and monitor learner progress and engagement using an online dashboard developed by Open Polytechnic. This tool tracks key indicators such as how often ākonga interact with their online courses, whether they've submitted assessments, and if any extensions have been requested. Analytics are also used to support decisions around managing non-engaged withdrawals, giving supporting evidence where there is no or little interaction with the course materials.

NorthTec kaiako providing local support are given access to a copy of the online course materials, which allows them to be familiar with how the course is presented, including both formative and summative assessment tasks. However, kaiako do not receive access to assessment marking guides or model answers. This decision was made intentionally to protect the integrity of the assessments, which are also provided to nation-wide Open Polytechnic ākonga. It also helps to avoid differing views on the level of support that should be provided to ākonga when preparing for assessments. To maintain clear role boundaries, NorthTec kaiako are not added to any online classes facilitated by Open Polytechnic kaiako. This helps prevent conflicting advice and ensures consistency in academic guidance.

Open Polytechnic kaiako are not expected to liaise directly with NorthTec kaiako. Instead, any queries or issues are managed through those non-academic managers at

NorthTec and Open Polytechnic who oversee the relationship, and who provide support as needed.

There is no requirement that those NorthTec kaimahi acting in a support role are subject matter experts (SMEs), as academic guidance is provided by Open Polytechnic Course Leaders; the course materials are designed to reflect the academic voice to ākonga. However, NorthTec does have kaiako with relevant subject matter expertise, so direct ākonga assistance can be provided if requested. The transition of teaching kaiako to more of a facilitated learning model has presented notable challenges. This shift diverges significantly from traditional delivery methods, where ākonga progress along a uniform timeline of skill acquisition. The new approach requires a ‘just-in-time’ pedagogical framework, characterised by ad-hoc and individualised support tailored to the unique circumstances of each ākonga. To ensure successful implementation, consistent and ongoing support for NorthTec kaiako from direct line management is essential. It is encouraging that adaptation to this model is now progressing well.

The CND model requires kaiako to possess highly developed administrative competencies, as the model requires continual adjustment of enrolments to align course timing with learners’ changing commitments to work and whānau. These demands fluctuate month by month and are influenced by varying stressors throughout the calendar year.

Resources

The pilot began early 2024 with the New Zealand Diploma in Business (Level 5) in Leadership and Management, and Accounting strands. As additional suitable programmes and associated digital courseware became available, NorthTec expanded its offerings to include certificates at New Zealand Qualifications and Credentials Framework (NZQCF) Levels 3 and 4, all six strands of the New Zealand Diploma in Business, and a certificate in information technology.

All courses are designed for asynchronous, self-paced learning and follow a consistent learning design model. They are textbook-independent and structured around a series of topics that provide a narrative scaffold and steady study workload. Open Polytechnic uses a formal, project-based development process that brings together the expertise of SMEs who are typically active in industry, alongside learning designers, digital media specialists, an editor and expert reviewers, including bicultural and Pasifika perspectives. Courses are centrally maintained to ensure consistency and quality and are increasingly incorporating mātauranga Māori in their design.

NorthTec kaimahi do not have a direct role in course or assessment design, as these are managed centrally by Open Polytechnic. However, feedback from NorthTec kaimahi and ākonga is considered. NorthTec is responsible for gathering learner feedback through learner surveys and sharing relevant insights with Open Polytechnic.

Learners enrolled through NorthTec access Open Polytechnic's digital learning environment via the MyOP portal and iQualify platform. These systems provide course materials, assessment submission tools, and communication channels. A personalised welcome letter from Open Polytechnic confirms course details, login instructions, and key contacts, helping learners navigate their blended study journey with confidence.

Comprehensive learning materials are hosted on iQualify. The online courseware includes interactive formative tasks, readings, videos, and summative assessments. Open Polytechnic also provides access to its library and learning centre, so ākonga can access an extensive range of electronic books, journals, reports, magazines and more, as well as a distance lending service for print resources. Ākonga are expected to have regular access to a laptop or desktop computer and a reliable internet connection so they can access the course, stream videos, and download materials. Technical assistance is available through the Open Polytechnic Service Desk for issues related to logging in, Microsoft Office 365 support, or accessing learner email. Support is available via the website, phone, and email, ensuring that ākonga can access help when needed.

Onsite facilities such as library, gym, cafe, ākonga support and well-being services, and in-person administrative personnel are available in the same way as for NorthTec's on-campus full time ākonga, ensuring there is a consistent availability of services to all who attend NorthTec campuses. There is some duplication of services for CND ākonga, which gives them the option of utilising those services that best fit their circumstances.

Timetable

Prior to the CND model, NorthTec offered between three and six qualifications across the Business Certificate and Diploma undergraduate levels. All had fluctuating cohort sizes. These uncertain ākonga volumes made it very difficult to guarantee ongoing availability of these programmes. Now NorthTec can offer eight qualifications across all three of its Northland sites. The range, location, and variety of qualifications is more than trebled through the CND model.

Courses were traditionally offered once or twice a year, tied to semester dates. Now they follow Open Polytechnic's monthly start dates, allowing flexible enrolment throughout the year. This means learners no longer have to wait up to six months for their chosen programme to begin. Ākonga study asynchronously, with suggested pacing guides and assessment deadlines provided. The flexible timetable supports ākonga who are balancing study with work, whānau, or other commitments and allows for transitions between face-to-face and online modes.

Courses are typically 20 weeks long and comprise 12 topics. Study plans are provided offering advice on how to pace courses at a topic per week, which also allows a week to prepare and submit assessments. The final assessment is due in week 16, and there are four weeks after to allow for marking and resubmissions. Ākonga have the flexibility to

submit assessments early and work ahead of the suggested timetable if they choose. They also have the option to apply for extensions. Opportunities here vary depending on the specific programme or course being studied.

Whilst flexibility is a major advantage of this model, challenges exist for ākonga who choose to study full-time. Managing multiple assignments with similar due dates throughout the course requires careful planning and time management skills. Some ākonga find this difficult and may require additional support. This is a future area of focus.

Assessment

Assessment tasks and rubrics are designed as part of Open Polytechnic's overall course development process, which is managed by Open Polytechnic's Learning Design and Development directorate. All assessments are co-created by contracted subject matter experts (SMEs) working with Learning Designers, ensuring academic rigour and alignment with learning outcomes. Quality assurance is maintained through Open Polytechnic's Assessment Centre which oversees pre- and post-assessment moderation. Moderation activity follows established practices and policies and includes reporting on recommended and required actions. This centralised approach allows NorthTec to focus on individual support for each ākonga, knowing that assessment design and practice is undertaken by Open Polytechnic.

The Open Polytechnic model has assessment marking performed by adjunct kaimahi, rather than Course Leaders. Open Polytechnic's Online Marking platform (OLM) manages assessment marking. Ākonga submit assessments online through the iQualify system, and final results are provisionally approved by Open Polytechnic's Results and Awards Committee (RAC) before being confirmed by NorthTec. The Open Polytechnic RAC meets weekly, and results are considered as and when they are available. This means results for ākonga are passed back to NorthTec as soon as they are available. NorthTec is then responsible for updating academic transcripts and awarding qualifications.

Institutional ākonga success services

NorthTec ākonga have access to a range of online distance support services through the Open Polytechnic website and its learner portal, MyOP. While these resources are designed for Open Polytechnic ākonga and are generally useful, they are not tailored to the specific needs of NorthTec learners and do not mention the additional support available to ākonga enrolled with NorthTec. This can lead to confusion or missed opportunities for those wanting to access local or in person assistance.

Open Polytechnic has developed a range of individualised and automated interventions, triggered by data analytics, to support ākonga success. These include automated texts and emails sent based on specific criteria (Brice et. al., 2023). However, NorthTec CND

ākonga are currently excluded from these communications, as the messages are not suitable for their context. One key concern is the timing and content of messages related to the withdrawal process. Since withdrawal policies differ across Open Polytechnic and NorthTec automated messages could be misleading, sometimes arriving after ākonga are already ineligible for refunds, resulting in confusion and inaccuracies. Tailoring these communications for NorthTec ākonga was outside the scope of this pilot.

To enhance learner engagement and support, the delivery is supplemented by facilitation from local community kaimahi, trusted and well-connected individuals who are embedded within the communities they serve. People are encouraged to utilise the physical facilities available at regional campuses, including enquiry and enrolment centres. These campuses include Raumanga, Whangārei, Ngawha, Kerikeri, and Kaitaia. This approach aims to foster culturally responsive and contextually relevant support, thereby improving learner retention and success.

In response to the specific needs of a smaller regional ITP with a dispersed population, NorthTec identified a critical requirement for real-time, face-to-face support to complement online delivery. This initiative aims to better engage ākonga who may struggle with a fully asynchronous online distance learning model, helping to reduce barriers to participation.

Once ākonga start their studies, NorthTec kaimahi can monitor ākonga progress using an engagement dashboard developed by Open Polytechnic. NorthTec kaimahi review this regularly to ensure ākonga are engaging with their courses and submitting assessments. The dashboard also allows NorthTec kaimahi to understand if ākonga are engaged and active, even if they are unable to contact them by email or phone.

Constraints

The CND model requires both NorthTec and Open Polytechnic to hold accreditation for those programmes being shared. During the pilot this was straightforward, because unified programmes under NZIST allowed both divisions to operate as part of a single accredited entity. A shared service agreement clarified roles and responsibilities, enabling flexibility without additional New Zealand Qualifications Authority (NZQA) or Tertiary Education Commission (TEC) approvals.

However, with Open Polytechnic returning to standalone status from 2026 the model will likely require a subcontracting arrangement under NZQA rules. To maintain NorthTec as the primary provider and ensure the learner relationship remains locally grounded, NorthTec will need to be the accredited provider, with Open Polytechnic acting as the subcontracted provider to support regional viability.

Gaining programme accreditation requires the polytechnic to demonstrate capability, including having staff with subject matter expertise. While NorthTec meets this requirement for some programmes, it limits the model to areas where NorthTec has academic kaimahi even though Open Polytechnic provides subject expertise within the CND framework. This constraint significantly restricts scalability and adds additional barriers to set up adding additional compliance. Clear regulatory guidance is required as the ITP sector further evolves.

As a pilot involving relatively small numbers, and with ongoing uncertainty around how collaborative models will be resourced and supported in the long term, minimal investment has been made in adapting information technology systems and processes. Existing systems have been used, supported by targeted communication with ākonga to reduce confusion. However, because ākonga access their courses through the Open Polytechnic learner portal, they are often presented with information intended for Open Polytechnic ākonga, which may not always be relevant or appropriate. To justify further investment, greater certainty is needed that the CND model will be supported by key agencies and scaled sustainably. The limited integration between systems has resulted in some double handling of enrolment and results data, with manual data entry increasing the risk of errors. This is particularly concerning when entering results into NorthTec's marks management system, APlus+. With appropriate investment, there is potential to develop system integrations that allow data to flow efficiently between platforms, streamlining processes and reducing the likelihood of user error.

There are challenges around the changing role of kaiako, where the traditional tutor-led lesson moves to response of ākonga-driven enquiry. Kaiako are not necessarily needed for their specific subject matter expertise but instead offer a generalist mentor and support function to support ākonga, who already have access to the learning materials and an online course leader.

Internet and device access is also a constraint in smaller settlements where, historically, access to good quality learning has been challenging. Identifying access as a potential barrier is a critical pre-enrolment discussion. With some planning, access can be overcome with access to local campus facilities and resources. Unfortunately, though, travel costs and time remain significant challenges for some.

Fee structures have also posed challenges. Initially, NorthTec charged a learner fee while Open Polytechnic offered programmes fees-free, creating an incentive for learners to enrol directly with Open Polytechnic. To maintain equity, NorthTec adopted a fees-free approach, which reduced overall income per learner. However, the increased volume counteracted this overall supporting viability.

Evaluation

NorthTec has been fortunate to observe the progression of one graduate from the CND model into the second year of a Bachelor of Applied Management (Leadership and Management). As part of her academic journey, this ākonga chose to centre her research methodology inquiry around the following question: ‘How can NorthTec enhance its level of student engagement through improved use of hybrid learning models?’ (Segessenmann, 2025).

As part of this project, feedback was sought from current ākonga experiencing face-to-face instruction, Moodle, iQualify, and online platforms including Zoom and Microsoft Teams. Valuable insights are being provided into the ākonga experience, which will help with further development of the CND model. The research has provided both qualitative and quantitative data, enabling NorthTec to critically evaluate current practices and inform future delivery strategies. Lessons will be incorporated into future planning of delivery so as to better meet the needs and priorities of ākonga.

From the ākonga research project, we have already learned that ākonga who enrolled with NorthTec from across business, health, and information technology qualifications were motivated by having a face-to-face delivery option available, meaning they did not want to enrol in a distance programme. The key challenges they faced from the online component were self-regulation, often because of not being familiar with study techniques from secondary schooling; poor internet connection; difficulty managing their time; the differences between online and face-to-face peer support; and an absence of clear structures of weekly sessions.

This information is used to structure those NorthTec workshops and engagement sessions with facilitators to inform pre-enrolment conversations. The CND model is exploring the best format for facilitator support sessions, which will include whakawhanaungatanga in the first week of each term as ākonga numbers grow.

The CND model represents a promising evolution in vocational education, particularly for the widely distributed regional learners in Te Tai Tokerau Northland. By leveraging the strengths of both Open Polytechnic’s flexible online infrastructure and NorthTec’s community-embedded support, the pilot has demonstrated the potential to address long-standing barriers to access, viability, and the challenges for some ākonga in engaging and succeeding in fully distance learning.

Key insights for ākonga success from the pilot underscore the importance of culturally responsive facilitation, robust local support, and proactive enrolment processes that consider digital access and learner readiness from the outset. The CND model’s adaptability, scalability, and alignment with unified programme structures position it as a viable framework for future collaborative delivery across the ITP Federation intended for the sector.

The pilot also highlights areas for further developing the CND model, including IT system integration, improving the ākongā experience, supporting the specific needs of full-time ākongā, and bringing clarity around institutional roles. Continued evaluation and refinement, guided by ākongā and kaimahi feedback and reflection on ākongā success data, will be essential to ensure the model's ongoing sustainability and effectiveness at scale.

Ultimately, the CND model offers a blueprint for inclusive, learner-centred education that honours regional diversity while embracing the efficiencies of digital delivery. Its success will depend on ongoing commitment to partnership, innovation, and responsiveness to the evolving needs of ākongā.

Editor's notes:

This combination of classis distance education and on-campus education is a logical extension of collaboration across the vocational education sector. Open Polytechnic and NorthTec have different ākongā appeal, and it is clear a synergy is in place through the CND model such that NorthTec is able to offer more services and options to local students who would otherwise not choose to engage in distance education study.

Funding and accreditation systems need to adapt to the possibilities of the CND model. As mutual subsidiaries of NZIST, Open Polytechnic and NorthTec were able to smoothly come to a joint arrangement that seems to present an ākongā-centred, mutually satisfactory arrangement. As the ITP sector moves into a new phase, both institutions become distinctive for the purposes of funding and accreditation. That kaiako in NorthTec are not required to be subject-matter experts will be an area of concern to accrediting agencies, and to some industry agencies that often set additional criteria for qualification recognition.

The CND model will no doubt continue to develop and mature. At first glance the CND model looks to be the basis for a hub-and-spoke model, with Open Polytechnic at the hub. Care has been taken in the CND model, though, to have ākongā identity with NorthTec. Future iterations of the model will likely continue to have these 'spokes' extend their central role for their local ākongā. The role of kaiako will be key to further extension of the model.

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Author profiles

Rachael Kelleher is Network Relations Manager at the Open Polytechnic, where she acts as the key liaison for ITPs accessing Open Polytechnic's enabling services. Her work focuses on developing sustainable blended delivery models that enhance regional provision, reduce duplication, and support collaboration across the vocational sector. Rachael has held a range of roles at Open Polytechnic, including business development and supporting organisations to implement iQualify, the institution's learning management system. Prior to joining Open Polytechnic, she worked at WelTec establishing a Student Experience function. Before moving to Aotearoa, Rachael served as National Skills for Life Manager (Literacy, Numeracy, ESOL) for Learndirect in the UK, leading national initiatives across a large network of community-based learning centres. Her current interests include blended learning models, sector collaboration, and the use of distance courseware to support flexible delivery.

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Lisette Buckle is Director – Ākonga Success at NorthTec. She is an experienced academic leader with over a decade in vocational education, specialising in programme development, academic quality assurance, and strategic leadership across varied academic portfolios. Lisette has led multidisciplinary teams, contributed to NZQA quality processes, and developed industry-aligned programmes. Her work is underpinned by a strong commitment to ākonga success, culturally responsive pedagogy, and the integration of Te Tiriti o Waitangi principles, alongside experience in international educational partnerships.

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Doug Standring is one of Aotearoa New Zealand's most experienced open and distance learning (ODL) professionals. Along with marketing and communications his specialist expertise includes the international ODL environment, and distance learning strategy, management and business models. Doug's 30-year career in tertiary education in Aotearoa New Zealand and the United Kingdom spans strategic planning; brand, digital and search marketing; corporate communications; business development and partnerships; product and service innovation; learner journey design; and transnational education. He has also conducted consultancy work for the Commonwealth of Learning. Doug's previous roles include managing media and communications at the London School of Economics and Massey University. Along with graduate study in marketing, Doug holds a Master of Arts (First Class) from Massey University and a Graduate Diploma in International Relations (Distinction) from the London School of Economics.

CASE STUDY MACRO.2

Learning hubs and blended delivery: Piloting equitable access

Terri Brian

“While blended delivery offers considerable promise in increasing access and flexibility, it is not a universally applicable or inherently equitable solution... successful, sustainable blended delivery must be underpinned by a whole-of-organisation approach.”

Context

NorthTec is the largest provider of tertiary education in Te Tai Tokerau Northland, with multiple campuses across the region. As part of the national vocational education network, the organisation plays a critical role in providing pathways to qualifications and employment. Across its campuses, NorthTec offers the New Zealand Certificate in Study and Career Preparation (NZCSCP) at New Zealand Qualifications Authority (NZQA) Levels 3 and 4. These programmes are designed to support ākonga (learners) seeking to develop the skills, knowledge and attributes required for higher-level study or improved employment prospects.

In Te Tai Tokerau Northland, many ākonga have complex and diverse needs that impact on their study efforts (Dang & Raven, 2022) and, for many, fully classroom-based study options are not feasible due to existing employment or whānau responsibilities, financial constraints, or health issues. As a result of geographical isolation, some need to travel considerable distances to get to campus and, while online study options exist, those without reliable devices, or the necessary digital and study skills, need scaffolded and targeted support to be able to participate. Additionally, internet and other infrastructure in some areas remains unreliable, creating further barriers to enrolment and programme completion. According to Beatty (2007), achieving equity in tertiary education means all ākonga have equal opportunity to succeed, and have the financial, social, and academic support necessary to engage in the learning process.

In 2020, in response to the need to provide more equitable access and participation for regional ākonga in Te Tai Tokerau Northland, NorthTec piloted a blended delivery model supported by the establishment of two learning hubs at its campuses in Kerikeri and Kaitaia. The delivery model was designed to offer ākonga multimodal learning options via a choice of face-to-face, synchronous online, or asynchronous participation, as illustrated in Figure 1. The addition of learning hubs was central to the blended delivery model, providing locations where ākonga could attend face-to-face tutorials, receive academic and pastoral support, interact with their peers, and access essential digital tools and reliable internet connectivity. This approach enabled NorthTec to provide ākonga with improved access to the NZCSCP programmes, providing a clear pathway to further education, and ultimately greater access to and control over their learning.

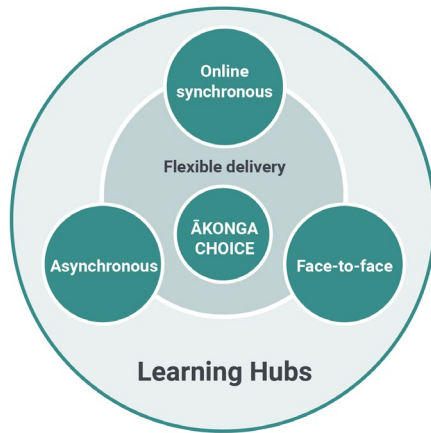


Figure 1: NorthTec blended delivery model

When the pilot was set up in 2020, there was little information available about alternative models of blended delivery. Reviewing the project six years later with the benefit of hindsight, and through the lens of the large-scale changes to education brought about by the Covid-19 pandemic, it appears that the blended delivery pilot was, in fact, an example of Hyflex as described by Beatty (2007). According to Howell (2022), HyFlex is not just a method of delivery, but also a pedagogy and a strategic approach for expanding educational access and participation. The model is underpinned by four core principles:

1. **Learner choice:** ākonga can choose how they participate in a learning experience.
2. **Equivalency:** all participation modes provide equivalent learning experiences.
3. **Reusability:** resources created for one mode can be used across others.
4. **Accessibility:** all ākonga have access to well-designed learning experiences and the technologies and skills required to make informed choices about participation.

By leveraging technology, HyFlex delivery makes it possible to serve geographically dispersed and remote ākonga, offering them convenient and alternative means of accessing educational opportunities. Ākonga can choose when and how to engage, at a time that aligns with their personal circumstances (Beatty, 2007).

Unfortunately, at the conclusion of the pilot changes within NorthTec management and the organisation's strategic direction, combined with the concurrent restructuring of the polytechnic sector, meant the funding required to continue with the delivery model was no longer available. Recommendations from the subsequent evaluative study (Brian, 2021) were also unable to be implemented. These constraints are described in more detail in the final sections of this chapter. It is therefore necessary to note that, while the author stands behind the intent and integrity of the delivery model, the case study reflects a snapshot within a very specific period. If a similar blended approach was to be reconsidered at NorthTec it would likely, for a variety of reasons, look quite different to the model described here.

Description

Ākonga activity

The NZCSCP blended delivery model enabled ākonga to exercise choice about how, when, and where they participated in learning activities. To support these choices, ākonga at Kerikeri and Kaitaia campuses had access to newly established learning hubs which, situated in repurposed traditional classrooms, were redesigned as learner-centred, flexible environments. Equipped with laptops, Chromebooks, audio-visual tools, and reliable internet connectivity, the hubs were intended to foster both academic and social engagement, featuring adaptable seating, formal and informal workspaces, and amenities for eating and food preparation. Ākonga were provided with 24-hour, seven-day access to the hubs, giving them extended opportunities to engage with learning. The hubs were also venues for face-to-face and synchronous online tutorials, self-directed study, group work with peers, and academic and pastoral support.

Tutorials led by kaiako were available across all modes of participation, ensuring ākonga had equal access to expert knowledge and support. In some instances ākonga could choose to attend online, synchronously, when kaiako in other campuses delivered face-to-face tutorials, either individually or as part of a group at a hub. At hubs, ākonga could also take part in supported learning sessions where kaiako were available to provide guidance and support. Open hub sessions provided flexible, self-directed learning spaces; ākonga could schedule one-to-one appointments for academic and pastoral support, focus on personal learning goals, or interact and collaborate with peers. For remote ākonga, supported learning and open hub sessions could also be attended synchronously online.

Because ākongā studying at Level 3 often need extra support acquiring the study skills and digital capabilities necessary to engage effectively in multiple modalities and online learning, scaffolded face-to-face and online synchronous sessions were provided. As ākongā progressed to Level 4, greater autonomy in their learning choices was encouraged, reflecting their more advanced learning competencies. At Level 4 learning activities were designed to be more self-directed, and ākongā were better able to exercise increasing control over their choice of modalities.

The online learning management system (LMS) Moodle supported delivery through asynchronous activities, designed to complement face-to-face and online synchronous sessions. Classroom-based content was recorded for asynchronous access, and online discussions and forums were designed so that they could be reused and incorporated into future programme and course delivery. All learning activities were designed to equally challenge ākongā to reflect on the content, contribute their developing ideas, and interact with the ideas of their peers irrespective of the mode of participation.

Kaiako activity

The blended delivery model fundamentally changed the role of kaiako facilitating the NZCSCP programmes. In 2020, kaiako were a team of eight experienced educators, working across three campuses, proficient in both foundation level education and in their areas of specialist knowledge. All were skilled in the facilitation of inclusive learning environments and in providing pastoral and academic support. Prior to the change in delivery, kaiako had been responsible for delivering face-to-face tutorials across Whangārei, Kerikeri, and Kaitiā campuses four days per week. This usually meant inter-regional travel to and from the main Whangārei campus, travel that was becoming unsustainable.

The change to the blended delivery model, while arguably a more efficient use of time and resources, required kaiako to shift from being solely face-to-face facilitators to becoming dynamic, multi-modal educators. A redesigned timetable meant that, rather than delivering four days of face-to-face learning, kaiako facilitated a combination of face-to-face and online synchronous learning experiences across five days. This required planning and delivery for multiple means of ākongā participation, often at the same time, with the additional challenge of ensuring parity of experience regardless of ākongā location and learning modality. Because the NZCSCP programmes were originally designed for face-to-face delivery, adapting course learning materials for multiple modalities required careful rethinking of both content and delivery.

To ensure ākongā had access to equitable learning experiences regardless of their choice of modality, kaiako had to develop high-quality activities and resources that worked seamlessly across both synchronous and asynchronous formats. Moodle served as the primary platform for structuring and delivering online course content, and kaiako needed to design pedagogically sound learning activities, assessments, and multimedia

resources. Kaiako also required competency in the use of audio-visual tools to deliver online synchronous or hybrid sessions. The extensions to the delivery model required new pedagogical approaches, greater digital fluency, and management skills for real-time ākonga engagement across both physical and virtual learning environments.

In addition to their specific subject teaching responsibilities, kaiako played a critical role in the provision of academic and pastoral support, facilitation of group collaboration, and guidance for independent learning. Kaiako also needed to plan teaching sessions, mark and provide feedback on formative and summative assessments, update Moodle materials, and respond to emails and messages. The learning hubs also added significant additional administrative and operational responsibilities, including ensuring ākonga had 24-hour access to the hubs, and managing the distribution, tracking, and use of Chromebooks and laptops. These tasks collectively added pressure to already complex workloads, requiring kaiako to demonstrate considerable adaptability in balancing teaching, support, and administrative tasks.

Resources

Genuine choice in how ākonga engaged with learning, while ensuring equal opportunities for success across all modalities, was a cornerstone of the blended delivery model. Central to this approach were well-designed learning activities and assessments, and access to the technologies and skills that enabled flexible participation. Over the duration of the pilot learning activities and assessments were adapted from a primarily face-to-face modality, such that they could be accessible across all modalities via Moodle. Ākonga could choose to participate in real-time, via synchronous sessions either face-to-face or online, or complete tasks asynchronously at their own pace.

To support diversity and a range of learning preferences, accessibility features were included in resource design. Downloadable, PDF versions of online activities were made available, allowing those who preferred printed materials, or were without internet connectivity at home, to work offline. Ākonga were, however, encouraged to engage online whenever possible to promote digital capability, and take advantage of tools such as text-to-speech and the interactive feedback features built into Moodle and H5P activities. A deliberate effort was made to ensure parity of experience across all delivery modes; for example, when Level 4 ākonga were required to complete a unit of learning involving practical, lab-based tutorials, kaiako developed simple home-based experiential learning activities using readily available household materials. This innovation eliminated the need for ākonga to travel to campus, while maintaining the integrity of the learning outcomes.

Beyond pedagogically sound learning design, access to technology was critical to multimodal participation. Recognising that many ākonga in the mid- and far-north faced barriers to access, NorthTec invested to provide technology. While laptops, Chromebooks, and iPads were previously available for loan, the establishment of the

learning hubs was paired with additional funding for the NZCSCP programmes to procure more devices. The learning hubs themselves were also designed to enhance the blended learning experience: portable TV screens, cameras, and speakers were installed to facilitate both face-to-face and online participation. These tools enabled ākonga to access recorded sessions, connect their own devices for collaborative learning, and participate in class activities. All readings and textbooks were made available in digital format through the NorthTec library, ensuring that ākonga had consistent and equal access to academic resources.

Timetable

The NZCSCP Level 3 and Level 4 programmes at NorthTec each consist of 60 credits comprising four 15 credit courses delivered over 19 weeks, constituting one semester. Ākonga were expected to study full-time; there was no part-time option. The blended delivery model was a direct response to the need for ākonga to be able to enrol full-time and maintain their employment or other commitments.

In 2020, the Level 3 programme focused on foundational skills in literacy and academic study, communication, numeracy, and digital literacy. The Level 4 programme, though similarly structured, was designed to prepare ākonga for further tertiary study by developing more advanced and specific academic knowledge and capabilities. Each course consisted of online activities, assessments, and resources accessible through Moodle, complemented and supported by scheduled facilitated synchronous online and face-to-face sessions.

	Monday	Tuesday	Wednesday	Thursday	Friday
9.00 – 10.30	Level 3 Study Skills (synchronous online)	Level 4 Academic Skills (synchronous online)	Level 4 Chemistry (synchronous face-to-face)	Level 3 Study Skills (synchronous face-to-face)	Level 4 Biology (synchronous online)
11.00 – 12.30	Level 3 Digital Skills (synchronous face-to-face)	Level 4 Chemistry (synchronous online)	Level 4 Academic Skills (synchronous face-to-face)	Level 3 Maths (synchronous face-to-face)	Level 4 Data Analysis (synchronous face-to-face)
1.00 – 2.30	Level 4 Data Analysis (synchronous online)	Level 3 Health (synchronous face-to-face)	Level 3 Maths (synchronous online)	Level 4 Biology (synchronous face-to-face)	Level 3 Health (synchronous face-to-face)
2.30 – 4.00	Supported Learning	Open hub	Level 3 Digital Skills (synchronous face-to-face)	Open hub	Supported Learning

Figure 2: Example timetable

The shift to blended delivery offered a practical and scalable solution to some of the logistical and financial challenges in maintaining consistent and sustainable regional delivery of both NZCSCP programmes. However, it required a complete redesign of existing timetables to better align with the delivery approach. Traditional, four-day one-subject-per-day timetables were replaced with three 90-minute sessions per day, spread across a five-day week, as shown in Figure 2. Sessions included both subject-specific tutorials, supported learning, and open hub sessions. The new timetables meant kaiako could potentially facilitate tutorials face-to-face on one campus while simultaneously delivering them to ākonga attending synchronously either online from one of the learning hubs or from home.

It is important to note that Level 3 ākonga had more timetabled face-to-face synchronous sessions than those at Level 4. This was reflective of the need to scaffold more advanced learning competencies as ākonga became increasingly self-directed. The format ensured consistency in delivery, and enabled resource-sharing across locations. Timetables were also intended to be synchronised across all three campuses, meaning only one kaiako was needed at any one time and alleviating pressure on those teaching part-time.

Accommodating Level 3 and Level 4 programmes in the same physical space meant the number of available kaiako-directed learning hours were reduced, however this was compensated for by supported learning sessions. These sessions provided a more informal academic environment, where kaiako were able to guide and support ākonga as needed. The additional open hub sessions provided the opportunity for ākonga to focus on personal learning goals, engage in self-directed online study, or collaborate in group work without kaiako support.

Assessment

Although traditional assessment methods such as quizzes and knowledge-based tests can be used in multiple modalities, adapting these for asynchronous delivery demands careful attention to issues of equity, accessibility, and academic integrity (Beatty, 2007). The implementation of the blended delivery model required significant rethinking and redesign of summative assessment tasks to ensure that learning outcomes were consistently achieved across all modes of participation. A key challenge in assessing learning within the blended model lay in selecting and applying assessment strategies that functioned effectively across both synchronous and asynchronous modalities. Assessment also needed to accommodate ākonga engaging at different times and in different locations.

In 2020 most assessments, especially those in the Level 3 programme, had historically been classroom and paper based. The NZCSCP programmes did not include formal exams. While some assessments were simply modified for online access via Moodle, others had to be completely redesigned to function effectively for blended and off-

campus delivery. Assessments that were already open-book, essay, or project-based transitioned more seamlessly, as these already enabled ākonga to engage at their own pace and allowed for formative feedback on drafts prior to final submission. Other courses used quiz-based assessments delivered via Moodle.

LMS functionality was consistently used so that all ākonga, regardless of their mode of participation, completed these assessments in the same way. Summative quizzes, for example, were made available for 48 to 72 hours during which time ākonga were permitted multiple practice attempts and one summative attempt. To accommodate ākonga unable to complete the quiz within the designated timeframe, an alternative quiz was opened under the same conditions. Automated features within Moodle supported timely feedback for multiple-choice and short answer questions; those requiring more complex answers were assessed and marked by kaiako. Moderation processes were carried out by the wider teaching team, a centralised approach that helped support consistency and quality across all campuses.

Both Level 3 and Level 4 programmes contained a presentation as an assessment task, including a group work component at Level 4. Historically the group work component created concerns around equity. The blended delivery model exacerbated these challenges, particularly when some ākonga were unable to engage synchronously on a regular basis. Kaiako actively managed groups and task allocation to suit specific ākonga needs and abilities, assisting in the facilitation of group work and mitigating the risks for non-engagement.

Institutional ākonga success services

Ākonga enrolled in foundation-level programmes such as the NZCSCP often do so with limited experience in asynchronous and self-directed learning. Many also present with heightened learning and social needs, making tailored pastoral and academic support services essential to their success (Ako Aotearoa, 2012). To be successful the blended delivery model required support systems that were flexible, accessible, and responsive across all modes of participation. In regional campuses with fewer dedicated support staff, kaiako were generally the primary point of contact and provided both academic and pastoral care, either face-to-face or via emails and texts.

In 2020, in addition to the academic and pastoral support provided by kaiako, institutional support for NZCSCP ākonga included Te Ara Poutama | Student Support Services, and the Student Voice team comprising of academic advisors, health care, counselling, disability support, and tikanga²¹ Māori guidance. These services were accessible face-to-face at scheduled times in the regional campuses, or remotely via the

²¹ Correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention, protocol - the customary system of values and practices that have developed over time and are deeply embedded in the social context.

NorthTec Learner Portal. This support for the blended delivery model ensured a range of options for ākonga accessible via a range of modalities.

Other services included Te Whare Pukapuka, the Library, also based in Whangārei, which extended academic support across the region offering guidance on locating and referencing resources, and library-based tutorials aligned with course content. For regional ākonga, the library provided a free postal service. Technology support beyond that provided by kaiako was accessed via the ICT Helpdesk, by free-phone or email. The Helpdesk was an important element of support for NZCSCP ākonga and proved fundamental to the success of the delivery model. Further digital skill support could be found in a series of 'How to' guides for ākonga on the NorthTec website, offering information and advice on common issues such as on campus wifi connection, enabling self-service user accounts, and accessing email.

Constraints

Prior to 2020, tertiary education institutions around the world had largely maintained delivery models that required ākonga to either attend campus-based classes or enrol in fully online programmes. There was limited systemic motivation to adopt more flexible delivery modalities (Howell, 2022). Consequently, when the NorthTec NZCSCP pilot took place, the programmes faced significant challenges in articulating their needs and value to decision-makers, particularly related to justifying ongoing investment and alignment with organisational goals. Continuing with the regional blended delivery model or adopting it across the organisation would have required continued funding aligned with long-term support. Uptake was complicated by financial constraints, and the absence of both robust evaluative frameworks and longitudinal data to measure improvements in access and participation over time.

Prior to the 2020 pilot, NorthTec organisational structures prioritised face-to-face delivery. The transition to the regional blended delivery model required a shift not only in pedagogy, but also in operational and technical support systems. NorthTec kaiako involved in the pilot were primarily experienced in designing and facilitating face-to-face models of learning and teaching, and often lacked the confidence or training in online and hybrid modalities. This placed increased demands on their time and professional knowledge. A lack of structured and timely professional development made it difficult to develop multimodal teaching practice, and the absence of a coordinated support system constrained the potential for effective implementation. A targeted and strategic organisational approach to upskilling that included blended pedagogies, and the integration of technology, were needed to address some of these challenges for kaiako; however, staffing changes and funding constraints meant that this was not perceived as an immediate organisational priority.

Successful implementation of the blended delivery model in the NZCSCP programmes required consideration of at-risk and priority ākonga, who often faced individual constraints affecting their engagement in learning. Many were unfamiliar with online learning environments and did not have the digital literacy, self-regulation, or time management skills necessary for effective multi-modal and asynchronous participation. As a result, despite being offered flexible learning options, many ākonga opted to attend face-to-face sessions and disengaged entirely from online and asynchronous participation. These patterns highlight inequities in ākonga readiness and underscore the importance of preparing them to make informed decisions about their choice of learning modality. More intentional communication about the expectations associated with blended learning, along with targeted support for the use of technology, navigating multimodal platforms, and developing metacognitive learning strategies, are needed to enhance ākonga autonomy and enable more equitable participation.

Evaluation

The primary goal of the learning hubs and the regional blended delivery pilot at NorthTec was to increase access to, and participation in, NZCSCP programmes. Evaluation of the pilot in a subsequent report (Brian, 2021) suggested that the blended delivery strategy successfully enhanced choice and flexibility, enabling ākonga to balance study with existing whānau, employment, and other responsibilities. This is part evidenced by one ākonga who reported that ‘[The best thing] is working at my own pace and learning in and around my job.’

The provision of the learning hubs to support blended delivery also addressed barriers related to infrastructure by offering ākonga access to reliable internet connections, digital devices, and the technical support necessary to engage in multiple participation modes. In the words of another ākonga, ‘I am able to access and use the technology necessary to participate and complete my online learning with a laptop and understand how to use Moodle with a wifi connection at home.’ Additional hubs were needed across Te Tai Tokerau Northland to further extend the reach of the blended delivery model, and to enable ākonga more choice as to their preferred mode of participation. For many ākonga, the distance they needed to travel to get to the regional campuses was still too far to make face-to-face participation an option.

Despite positive indicators surrounding the flexibility of blended delivery, some ākonga faced challenges associated with the levels of digital competency and self-regulation required to participate online or asynchronously. In Brian (2021), it was found that ākonga felt asynchronous online study skills were assumed and so advocated for them to be integrated and scaffolded throughout the NZCSCP programmes particularly at Level 3. Specifically, ākonga expressed the need for earlier instruction on navigating Moodle and participating effectively across multiple modalities. Ākonga readiness for

multimodal learning needs to be evaluated early in programme delivery, and appropriate and targeted support, to ensure choice and engagement across all modalities. Learning activities that intentionally build skills and nurture relationships in both face-to-face and online modalities must also be included in course design and facilitation.

The importance of social presence and connection emerged as key themes. Ākonga placed significant value on face-to-face interactions within the hubs, noting that these sessions promoted whanaungatanga, enhancing their understanding and fostering collaborative learning: 'It helps to clarify the work we are learning, and I can get ideas from others.' Kaiako similarly emphasised the relational and pedagogical value of face-to-face contact in the hubs, with one saying

Face-to-face contact is important for maintaining relationships with learners, and for keeping course content in context with the 'bigger picture' of the programme as a whole ... [it also] positively affects motivation and learning ...'

A key challenge of the blended delivery model, therefore, was the potential for ākonga to experience isolation in online and asynchronous environments. For those participating asynchronously, a perceived lack of connection impacted their learning experience. Where online and asynchronous participation are the chosen modalities, blended delivery must prioritise building social presence online.

Gaps were also identified in organisational communication and ākonga onboarding across the NZCSCP programmes. Clearer messaging about the structure, expectations, and responsibilities inherent in blended learning, from initial enrolment through to completion was needed to better prepare ākonga for independent, multimodal study. Some ākonga also cited organisational processes as barriers to engagement with the delivery model, indicating a need to streamline administrative systems such as enrolment and ensure timely access to Moodle and support services.

While blended delivery offers considerable promise in increasing access and flexibility, it is not a universally applicable or inherently equitable solution. Critical evaluation of its implementation at NorthTec suggests that successful, sustainable blended delivery must be underpinned by a whole-of-organisation approach. Sustained professional development and recognition of the potential increased demands blended delivery places on kaiako are also essential to its success. Without targeted support and time allocation, these demands risk compromising the quality and integrity of the blended learning experience.

Finally, to avoid blended delivery becoming a financially expedient fix for systemic equity-based issues, it must include the application of purposeful, pedagogical practice, an explicit commitment to equity, and provision of robust support structures. This helps ensure that any blended delivery model becomes more than a technical assembly of synchronous and asynchronous learning activities and supports meaningful and

comprehensive learning extending beyond its components. These principles must be integrated into organisational strategy and guided by a shared understanding of how it can contribute to the provision of high-quality, equitable, and inclusive learning experiences.

Acknowledgement

The author would like to acknowledge the contributions and support of NorthTec ākonga and kaimahi, without whom, the pilot and subsequent evaluative study would not have been possible.

Editor's notes:

It is encouraging to see blended learning applied in ways that make education more inclusive to distributed populations in remote settings. The conditions of Northland, where small communities are often poorly served by technical infrastructure and access to the skills necessary for degree study, are reflected in multiple locations around the globe. The pilot reported on here indicates how the right blend can empower ākonga to access education and succeed in it. In this model, reach extends from a central campus to regional hubs, and beyond through an online study option.

The Macro case study here highlights the need for effective ākonga orientation, and kaiako professional development. As the orientation and confidence grow, that is, as the model matures, it is easy to see how the HyFlex approach presents a ready solution to making higher education more available, inclusive, scalable, and sustainable. Key to this, though, must surely be the observation that its 'principles must be integrated into organisational strategy and guided by a shared understanding of how it can contribute to the provision of high-quality, equitable, and inclusive learning experiences.' Once more we are reminded that, for blended learning to succeed and expand, it relies not just on innovative and dedicated models but on an operating model sympathetic to its dynamics.

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Author profile

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CASE STUDY MACRO.3

Primary ITO: New Zealand Certificates in Agriculture Levels 3 & 4 (Dairy Farming)

Eve Keast

“Work-based learning is, at its core, blended... Online courseware can never replace lived experiential learning. On-job training ensures the development of a skilled and informed workforce immediately aligned with industry needs.”

Context

Primary ITO (Industry Training Organisation) is a vocational education provider that leads work-based learning (WBL) for the food and fibre sector in Aotearoa New Zealand. It supports roughly 20,000 ākonga annually across more than 30 primary industries by facilitating on-the-job training, allowing employees to ‘earn while they learn’ through practical, real-world experience. Ākonga in this case study includes all trainees, learners and employers enrolled with Primary ITO. Primary ITO offers nationally recognised New Zealand Qualifications Authority (NZQA) qualifications ranging from Level 2 to Level 6 on the New Zealand Qualifications and Credentials Framework (NZQCF). Primary ITO also helps secondary school learners gain foundational skills and transition into primary industry careers through its Gateway and Trades Academy programmes.

WBL is a unique part of Aotearoa’s vocational education and training (VET) sector. WBL is a formal part of the vocational education and training sector with a formal definition in the *Education and Training Act 2020* (s. 10):

work-based training means systematic training and assessment (including apprenticeship training) in the skills characteristic of, or likely to be valuable to, persons engaged in an industry (or 2 or more industries) that is provided to persons engaged in that industry (or those industries)—

- (a) by or on behalf of employers in that industry (or those industries); or
- (b) for the benefit of employers and employees in that industry (or those industries).

That same section of the *Education and Training Act 2020* also defines apprenticeship training:

apprenticeship training means a type of vocational education and training that—

- (a) is provided for a person who is working in an industry while undertaking training in that industry; and
- (b) is provided wholly or partly at the person’s workplace, mainly by or on behalf of the person’s employer; and
- (c) consists of a programme of study or training, or both, leading to a qualification in the skills of an industry that provides entry into an occupation in that industry; and
- (d) is facilitated by a person that receives funding from TEC

In WBL most of the learning takes place in the workplace, within the employment context. The ako²² itself is either cohort-based or independent, usually supported by online and self-directed material. Training programmes are designed for the workplace, and ākonga study mainly in the workplace they are employed and are supported by both the provider and their employer, as documented in formal agreements. So, the WBL provider has a relationship directly with the employer as well as the ākonga.

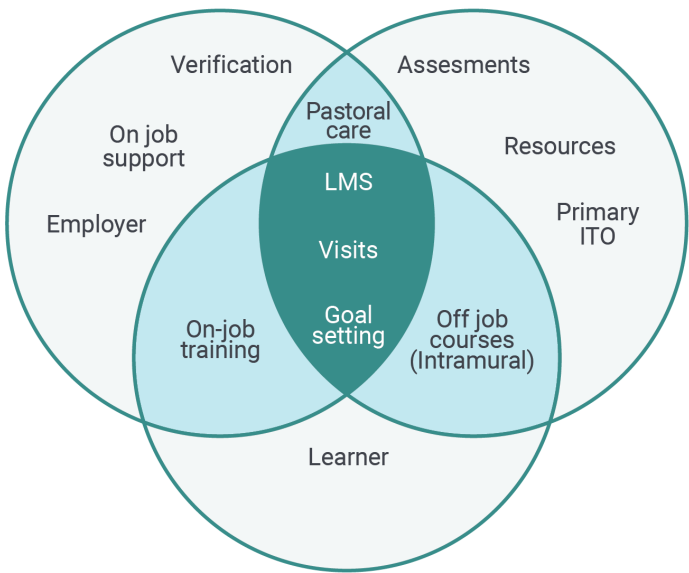


Figure 1: The interconnected functions of the tripartite training agreement

Importantly, for this case study it is necessary to distinguish between very different kaiako roles using terms commonly used at Primary ITO. A kaiako is typically an individual responsible for teaching or instructing. In WBL kaiako includes the employer,

²² (In its verbal form): To learn, study, instruct, teach, advise.

manager, Verifier, Tutor, Training Adviser, and Assessor. Frequently there are overlaps in who performs these functions, explored in more detail later under kaiako activity.

Primary ITO initially began investigating e-learning infrastructure to support blended learning as far back as 2016, as part of an internal Digital Transformation Programme. The technology aspect of this project was significant; it was based on a strategy for improved development of learning products, learning opportunities, and assessment completion.

The development of Primary ITO's learning management system (LMS), later named Mahi Tahi, began in 2020 with a focus on the newly launched New Zealand Certificates in Agriculture Levels 3 and 4 (Dairy Farming). This followed Primary ITO's purchase of Totara Learn, an LMS used worldwide for online learning.

The New Zealand Certificate in Agriculture programmes were intentionally designed to have their theory learning, verification, and assessment hosted on an online platform. These programmes were selected as the pilot for Mahi Tahi because the Unit Standards²³ in the previous programme were due to expire, making them a logical choice for moving entirely online. To ensure accessibility for all ākonga, and as part of continuous improvement, the option of paper-based assessment was reintroduced in 2025.

Ākonga enrolled in the Primary ITO New Zealand Certificates in Agriculture Levels 3 & 4 (Dairy Farming) are geographically diverse. WBL does not rely on cohorts or semesters, so enrolments have a broad participation profile. WBL models also need to be flexible because of seasonality and work demands. Instructional methods integrate online learning with live online study nights; in-person tutorial days, also variously referred to as 'training days' or 'off job days'; and the core learning taking place in the context of employment.

Mahi Tahi is the online platform for learning and assessment. It provides access to learning resources; enables ākonga to upload video and photo evidence; provides tools for Training Advisers to support and assess learners; supports Verifiers in their roles; and, where necessary, enables external assessment via providers or independent Assessors. Mahi Tahi facilitates flexibility of learning and assessment to meet the needs of ākonga. It enables access to learning for those working remotely and can also fit in with the competing demands of employment. The Training Adviser uses the Mahi Tahi LMS to monitor ākonga progress and guide their learning. Simple communication can also take place directly via the LMS. Ākonga can see where they need to be focusing their attention, as their Mahi Tahi dashboard shows those Unit Standards they should

²³ A Unit Standard is a component of formal learning registered on the NZQCF. See [Unit standard definitions and explanations - NZQA](https://www2.nzqa.govt.nz/tertiary/assessment-and-moderation-of-standards/assessment/resources/unit-standard-definitions-and-explanations/) | <https://www2.nzqa.govt.nz/tertiary/assessment-and-moderation-of-standards/assessment/resources/unit-standard-definitions-and-explanations/>

be focusing on. The employer can see their employee results in real-time, which helps in progress conversations and gives the employer options for providing meaningful support.

Ākonga provide the central reference point for how the WBL experience is designed, determining the role of the LMS. Primary ITO decided to use its LMS for learning management and to continue to use existing systems for ākonga management. The LMS deals solely with areas that make up the learning experience for ākonga, including access to learning resources, assessment submission and grading, course progress, and other elements related to completing their learning programme. Trellis, the Trainee Management System (TMS), manages registration, enrolment and compliance information including the recording of final completion of a Unit Standard, ākonga records, and other Industry Training Regulation (ITR) and NZQA requirements.

Description

Ākonga activity

Ākonga enrolled in the New Zealand Certificate in Agriculture Levels 3 and 4 (Dairy Farming) programmes engage in a blended learning experience that combines online and work-based learning. Before enrolment into each programme, the ākonga journey begins with a meeting between them, their Training Adviser, and their employer. This meeting is an opportunity for the Training Adviser to conduct a needs analysis for the ākonga and enrol them in the appropriate programme. All ākonga must be in employment related to the programme they are enrolling in.

Once enrolled in the programme ākonga are provided with access to Mahi Tahi, which hosts all learning resources and assessments. Creation of a Mahi Tahi account takes place only once the tripartite contract has been signed and the ākonga has been enrolled in the TMS. The Training Advisor inducts the ākonga and provides their orientation to Mahi Tahi. The structure of Mahi Tahi is such that ākonga can dip in and out of the Unit Standards making up their programme. This flexibility is necessary because of the seasonal nature of the food and fibre industry. Ākonga can enrol in programmes at any time of the year, meaning there are no cohorts. This individualisation means that learning activities are dictated by on farm, in employment opportunities. The differences across workplaces vary even across the same industry in different parts of the country, for example calving on a farm in Northland occurs earlier than for a farm in Southland.

Mahi Tahi programmes are displayed as ‘pathways,’ enabling ākonga to focus on their journey as they progress through the different Unit Standards of their programmes. They can quickly see what they have completed, and what is to be done. This gives them a real time indication of progress and the ability to track what assessments are still to be completed.

Programmes are made up of theory and practical assessments. Theory assessment can take the form of quizzes, multi choice, and free text answers which are marked by the Assessor. Practical assessment requires ākonga to upload photos and videos as evidence. Ākonga can use an app for Mahi Tahi to upload evidence on their phones. The app version of Mahi Tahi is only available to ākonga; Verifiers and Assessors are both required to use the web platform via a laptop or PC.

Off-job training days are required across all programmes of study. These are scheduled by the Delivery Team (kaiako) such that they complement seasonality on a farm, ensuring both that the content is timely and that people are not required to be away from work during busy periods.

Extracurricular opportunities, such as study nights, are offered to enrich the learning experience as ākonga numbers and opportunity permit. While study nights are not compulsory and typically suit those locally available, they are organised when feasible, including online where it makes sense from an availability and cost perspective.

Overall, ākonga benefit from the guidance of their Training Advisor and study online through Mahi Tahi, which will typically require them to learn on the job and provide evidence of their learning and application.

Kaiako activity

Work-based learning follows a different model than typical vocational education in Aotearoa New Zealand because of the tripartite training relationship between ākonga, their employer, and the provider. This relationship adds a layer of complexity to what would usually be a more straightforward and direct relationship between ākonga and provider. Training Advisers and Tutors have a kaiako role; for the sake of this analysis, we have combined the functions of the Verifier and Assessor. In other vocational models, the roles of Verifier and Assessor are performed by the same person.

The Training Adviser is responsible for coordinating ākonga study. The Training Adviser orientates ākonga to the Mahi Tahi platform, usually during an off-job training day if one is coming up, giving the Training Adviser opportunity to induct all ākonga. Whether the induction is carried out individually or as part of an off-job day ultimately depends on what works best for the ākonga, who is typically also an employee. Employment obligations are the reality that drive the need for flexibility and a personalised approach to ākonga engagement within the model. The Training Adviser is each ākonga's first point of contact for any technical issues such as forgotten passwords or difficulty navigating Mahi Tahi.

Training Advisers also work with employers to ensure that their employees are enrolling in the right programmes that provide the right skills, knowledge and competence for the role the individual has in the workplace. All Primary ITO ākonga enter a tripartite training agreement with Primary ITO and their employer, which ensures that everyone

understands their role and works to a common purpose. The employment context itself provides the learning opportunities, so the employer or manager might also be considered a kaiako. They work alongside ākonga and so are intimately aware of ākonga capability and progress. The role of the kaiako performed by the employer or manager in Mahi Tahi is primarily that of Verifier, in that they verify ākonga can carry out the tasks being assessed. The Training Adviser will sign off what ākonga have achieved and so award a pass to a Unit Standard based on the evidence submitted as verified and evidenced by the employer or manager. Once ākonga submit Unit Standards for assessment, the Verifier is emailed notification. On completion of a programme of study, their Training Adviser will present them with their Certificate.

Primary ITO Training Advisers are experts in their field. They have the technical proficiency to support ākonga and their employers; they can also advise on best practice and its implementation. Importantly, Training Advisers belong to the communities they live and work in. Their first-hand understanding of what it means to work in the food and fibre industry means they bring an understanding of the hours, lifestyle, and external pressures that impact a business, and appreciate how an employers' lifestyle and business are inextricably linked.

Tutors are subject experts employed to teach classes in support of specific Unit Standards. Tutors are independent contractors, brought on as their expertise aligns with the seasonal provision of subjects. They teach either in-person or online.

Verifiers play a key role in supporting ākonga throughout the training and assessment process in primary industries. A Verifier is usually a supervisor, team lead, manager, or a person with sound knowledge of the assessment topic. Verifiers are important because of their subject matter knowledge and frequent on-job access, so can observe ākonga when Assessors are not available. The main job of a Verifier is to decide if ākonga consistently complete practical tasks to the required standard. This involves observation and questioning whilst ākonga perform activities or tasks and giving feedback on the performance being witnessed. Verifiers also guide and assist ākonga in their collection of evidence and therefore play a key role in ākonga success and qualification completion.

The Assessor role requires registration with Primary ITO. Assessors are expected to have a minimum level of professional Assessor training substantiated by them having completed Unit Standard 4098, *Use standards to assess candidate performance*. Assessor professional practice is regularly reviewed and moderated by the Primary ITO Quality Assurance team. Assessors are expected to participate in ongoing professional development workshops and as the main part of their role are required to make the final decision regarding learners' competency.

Once a Verifier has verified ākonga assessments an email notification is passed on to the Assessor who subsequently logs into Mahi Tahi. Based on the verification, the Assessor decides whether the ākonga has achieved the Unit Standard. Once an ākonga

is deemed to have achieved a Unit Standard, they are then awarded it through Trellis. A Training Adviser manually records the achievement in the TMS, as the result does not automatically flow through from the LMS. This manual step will be automated in real-time through API by June 2026.

Verifiers attest to ākonga performance; Assessors determine whether that performance matches the requirements of the Unit Standard being studied. The Verifier authenticates evidence and offers feedback on performance that assists both the Assessor and the ākonga. Assessors then use the verified evidence, alongside their own judgement, to fulfil their role.

Resources

All users of Mahi Tahi have access to a Users' Guide. A short introduction course is also available, which shows users around the website and app; this course also lets users know what to expect for learning and assessments and tells users how to get access to the supporting resources that Primary ITO offers. This introductory course remains available for ākonga throughout their studies.

All learning materials for the New Zealand Certificates in Agriculture Levels 3 & 4 (Dairy Farming) are provided through the Mahi Tahi platform, so everyone involved is required to have access to a computer and the internet. The online programmes include a mix of reading, video, and interactive activities, frequent checks for understanding, and both theory and practical assessments. Theory assessments usually take the form of online quizzes. This is covered more thoroughly in the assessment section later in this chapter.

Mahi Tahi hosts a mix of resources depending on the most appropriate representation of the information being studied. This may include online content written for Mahi Tahi, links to existing resources, a recommended learning sequence based on an ākonga's own enrolment season, or a calendar confirming workshop days. Resources are both online and in print.

Availability to online resources in Mahi Tahi is driven by the learning goals determined for each ākonga in their training plan. Only Unit Standards released toward a training plan learning goal will be visible in Mahi Tahi. When their first learning goal is released, ākonga receive an email to create log in details.

Some learner guides are fully online, however ākonga are given the option of completing assessment via paper. If completing via paper, the Training Adviser must choose 'paper' instead of 'online' when releasing the learning goal and order the paper assessments via a training plan matrix. There are no Learner Guides available on paper for online Unit Standards. All learning material is available on Mahi Tahi. The option of completing assessment via paper was made available after internal feedback however, the uptake is only about 5%. The low interest may be the result of ongoing improvements in Mahi

Tahi, as well as staff turnover; a large proportion of the field team has only ever known the Mahi Tahi environment, so online learning is perceived more as a default.

Materials for the New Zealand Certificates in Agriculture Levels 3 and 4 (Dairy Farming) are developed by Primary ITO instructional designers, who are experts in crafting and maintaining learning materials and work to quality standards published by NZQA. Subject Matter Experts (SMEs) from industry are contracted to provide technical knowledge.

Timetable

The New Zealand Certificates in Agriculture Level 3 and Level 4 (Dairy Farming) both have an expected duration of 20 months. Ākonga can enrol in WBL at any time. The pathways structure of Mahi Tahi means that Training Advisers can guide the learner pathway by releasing Unit Standards as they become applicable in the work context. The flexibility of Mahi Tahi means it is also diverse enough to support both time-bound cohorts and individual rolling enrolments.

Both Certificates are made up of 125 credits of learning, and ākonga progress through the qualification in modules. A module might consist of anywhere between five and 20 credits; the number of credits also indicates to the learner how many learning hours it may take to complete that module, with one credit being the equivalent of approximately ten learning hours.

The programme is highly flexible so that study can align with farm seasonality. Ākonga study those modules that align with on-farm activity, for example, learners are enrolled in mating topics during mating season and appropriate. Primary ITO contracts independent Tutors who support the teaching of each Unit Standard. Tutors are available to support their learning.

Each Unit Standard ākonga enrol in has specific classes assigned. Training days are delivered either face-to-face or online. The online option provides flexibility for those who cannot attend face-to-face classes and provides a national reach. The removal of this geographical limitation is important, especially in dairy farming; there may be a requirement for local ākonga to milk both in the morning before a training day, and in the evening following it. Online classes remove the need to factor in travel time. Limiting the time required off farm is important for accessibility. Many farms are also remote, so travel times can be very high.

Online and face-to-face training days are considered equivalent for learning purposes. Regardless of medium, training days are a great way for ākonga to meet others working in the same industry in different businesses. For privacy reasons online sessions may or may not be recorded, depending on the ākonga agreement and the material to be covered. So, if ākonga miss a training day, they will either have to wait for the next available training day or attend a study day to catch up. Attendance is monitored by

Training Advisers, because if ākonga miss an online session they might have to travel for hours to attend one face-to-face or wait a whole year for the next one.

Assessment

Training Advisers guide ākonga to make certain they are progressing with assessment in accordance with the seasons of their farm or workplace. There are two types of assessments: practical, and theory. Theory assessment usually requires the learners to answer online quizzes. The quizzes can have a variety of answer types, including multi choice, drag and drop, and free text, as well as the ability to upload files if desired by ākonga. These quizzes are marked by the Assessor.

The Training Adviser carries out assessment for all Unit Standards. Evidence toward assessment is gathered from both off-job and in workplace, on-job, settings. Examples of assessment tasks include:

- Reader/Writer facilitated summative assessment of knowledge-based, written questions. These are off job.
- Direct observation where the Verifier or Assessor can observe ākonga completing tasks, evidenced by a checklist typically accompanied by photos or video. This is on job.
- Naturally occurring evidence gathered in the workplace, also on job.

Compliance with workplace health and safety legislation, environmentally sustainable practice, and workplace recording and reporting procedures apply across all assessed elements. Training Advisers guide ākonga toward the seasonal opportunities they have toward assessment and credit achievement. The Training Adviser carries out assessment for all Unit Standards.

The actual evidence for practical assessment varies. In most cases, evidence is in the form of uploaded videos and photographs. However, the nature of work-based learning is such that some activities cannot be captured. For example, it can be impractical or unsafe to provide photos or video when ākonga are handling livestock or operating by themselves; focusing on the photo or video might contravene on-farm health and safety requirements. In cases such as this evidence can consist of a description of the task by ākonga. The Verifier then provides their assurance that the task has been done and that the ākonga is capable.

Ākonga may have more than one Verifier throughout their qualification as they progress across different managers, team leaders, supervisors, and Unit Standards. Expertise in the topic being assessed is the common requirement for all Verifiers. Trellis manages the relationships across Verifier and ākonga, and Training Advisers enter the grades in both Mahi Tahi and Trellis.

Verifiers capture what is evident in normal working life, so they are best to be someone working with the ākonga on a regular basis. Verifiers do not necessarily need to be the

same person who carries out training. Most of the Verifier role is taken up with commenting in writing, signing, and dating tasks. This can be a regular activity if the ākongā is making rapid progress, so it is important that the Verifier has the time available during their work schedule to perform those duties for all ākongā they are involved with.

The Assessor's role is to confirm that, according to the Verifier, the ākongā is competent and can be awarded the Unit Standard (see also Primary ITO 2022, 2025).

Institutional ākongā success services

Primary ITO provides comprehensive support services to help ākongā succeed academically, personally, and professionally. Primary ITO has approximately ten mentors around the country, almost all of whom are ex-Tutors or Training Advisers with some history in the organisation. These mentors can assist ākongā with industry knowledge and assessment work and are paid for their time. Study sessions are also held at various times around the country for ākongā to attend and get assistance if needed. These study sessions are held in addition to off-job training days and are entirely optional but encouraged.

One key service offered by Primary ITO promotes literacy and numeracy. All ākongā have their prior qualifications assessed. Those with low or no prior qualifications are requested to do an online literacy and numeracy assessment to establish basic literacy and numeracy competencies. These results are fed back to Training Advisers to establish where further support may be needed. Dyslexia screening is also offered to all. These free online screenings are arranged for ākongā as requested and, when completed, provide a comprehensive report. Primary ITO's Learner Support Team sends the report to each ākongā and provides follow up support where necessary. Free Grammarly and Helperbird licenses are also available, and C pens (portable, AI pen scanners that read printed text aloud) are distributed to any ākongā needing them to improve access to paper-based activities.

Primary ITO's Learner Support Team provides nationwide reading, writing and typing assistance for those ākongā who have knowledge but struggle with reading, writing, or typing their answers for assessment by providing Reader/Writers to attend class with those ākongā who need this assistance, or work one-to-one with them to complete theory-based Unit Standards. Reader/Writers help with the actual writing of answers and comprehension of questions, rather than the technical and industry knowledge required.

Primary ITO had funding to purchase 14 Chromebooks to support deserving ākongā who are enrolled in online qualifications, but who do not have the technology to access it. Vitae counselling is also offered to all active ākongā. This anonymous and confidential counselling can assist with all forms of life challenges.

On top of these specific success initiatives, all ākonga are emailed an offer of support services and an invitation to contact the Learner Support Lead at any stage for additional assistance when their programmes are activated. Many of the institutional success services offered by Primary ITO go beyond academic support. Training Advisers, as the primary contact for all ākonga, are the connection point to the various support mechanisms in place. Training Advisers meet regularly with ākonga and their employers for professional and personal goal setting, and work to ensure that ākonga and their employers are suitably supported for success.

Constraints

Primary ITO has a strong focus on meeting stakeholder needs and has an organisational culture that is constantly looking to improve its processes. Comprehensive self-assessment practices inform decisions about programme review and development, and alignment with employer and ākonga needs. That said, there are various challenges faced with the blended model that have been identified for improvement. Most constraints and challenges relate to technology.

Digital literacy is a real issue. The older demographic who serves as employers and Verifiers are challenged by the Primary ITO online systems. Access to technology is also a consideration, as many ākonga enrolled in agriculture qualifications do not have laptops and prefer to learn using their phones. Mentors and employers do not have access to Mahi Tahi, making it difficult for them to see what ākonga are studying or how they are progressing.

Rural communities have long faced connectivity challenges. A survey by Federated Farmers recently reported that mobile coverage averages just 57% of farmland (Federated Farmers, 2025). The Federated Farmers 2025 Rural Connectivity Survey, which was completed by more than 600 farmers, highlights key frustrations around poor mobile service, unreliable internet, and high costs. To meet these last two challenges, the Mahi Tahi app operates offline. Evidence can be captured offline and uploaded to the platform when internet access is achieved.

Another technical issue is internal to Primary ITO: systems integration. Training is administered from the Trellis TMS, and there is room for improvement in how this and the LMS Mahi Tahi update completions or Unit Standard progression. As an example, Mahi Tahi can track progress towards completion however progress is reported in Trellis as a yes or no field, so Trellis updates must be made manually by the field team.

The model described in this chapter began as a pilot intended to replace a paper-based system. The New Zealand Certificates in Agriculture Levels 3 and 4 (Dairy Farming strand) were intended as a trial, however the pilot was not evaluated; instead, it was

simply adopted. The value of the approach was not immediately apparent to the field team, who were content with the paper-based system.

Finally, the past five years have seen ongoing kaimahi and organisational change through New Zealand's Reform of Vocational Education, including the establishment and now disestablishment of Te Pūkenga, the single entity intended to bring together all forms of vocational education. Fortunately, the efficiencies and technological approach taken by Primary ITO is succeeding despite these challenges.

Evaluation

Work-based learning is, at its core, blended. The model described here for the New Zealand Certificates in Agriculture Levels 3 and 4 demonstrates how an online LMS, Mahi Tahi, enhances the facilitation of work-based learning. The strength of work-based learning is its authenticity; learning is both real-world and real-time. Online courseware can never replace lived experiential learning. On-job training ensures the development of a skilled and informed workforce immediately aligned with industry needs.

The analytics in Mahi Tahi allow the Primary ITO field delivery team to actively monitor ākonga progress. Metrics such as time spent on the platform, last login, duration of last visit, which Unit Standards have been opened, and progress across all Unit Standards present a very rich picture of ākonga development. Training Advisers can then make informed decisions around progression visits, better determine the interventions they should make, and better prioritise their efforts to support learners to success. If an ākonga is progressing well and has the support needed from their employer, a Training Adviser might choose to conduct a virtual visit rather than an in-person one. Conversely, if an ākonga is having difficulties, a structured meeting might be arranged with them and their employer.

Some qualifications at Primary ITO are still paper based. Interestingly, the average number of days from enrolment to first Unit Standard assessment is higher for online learning than paper-based, however the time between enrolment and completion of the qualification is much shorter for online learning than for paper-based. This shows that although the initial experience takes time, it quickly gains momentum. It seems that, initially, ākonga take some time to adjust to the online learning environment and how everything fits together. Eventually, though, things become easier and the technology barriers are reduced. The core kaiako activity and relationships remain the same across paper-based and online versions; Mahi Tahi makes things more efficient and effective.

Editor's notes:

The work-based learning model here is a wonderful example of an integrated system recently enhanced by technology. In many ways it is what you would hope to see: employers, Training Advisors, Tutors, Verifiers, Assessors, mentors and ākonga all performing their specialised roles informed by analytics and the digital receipt of evidence through Mahi Tabi. The need for these various roles adds integrity to the education experience, and the flexibility of Tutors as independent contractors means specialists are made available in support of specific subjects. The complexity of the various roles, required by the WBL context, remind just how important it is to actively design blended models.

Central to the model is Mahi Tabi, a new system for Primary ITO that nicely brings together access to materials, a repository for evidence, profess analytics, and bringing integration to the activities of the various actors involved. Clear opportunities exist for furthering the online component, and it is clear that Primary ITO are considering the technology access of its stakeholders as they continue to improve their provision. This case study reminds us that blended models should be continuously improved; that technology can integrate how complex models operate; and that the success of a complex model relies on careful and coordinated design across specialist roles and functions.

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Author profile

Eve Keast has worked in primary sector capability for eleven years, the last seven with Primary ITO. She is currently Lead for the Pathways into Primary Industries, working at the intersection of industry, education, and community development. She holds a Master of Arts (Merit) in English Literature from Victoria University of Wellington, which has proven thoroughly unhelpful for her thus far (although she knows a lot about Alexander Pope and the advice tracts of the long Eighteenth Century). Over the past decade Eve has led various projects including the

establishment of Women in Horticulture and the Gisborne Young Grower Competition. She previously served as the Business Manager of the New Zealand Asparagus Council, the levy body for New Zealand's commercial asparagus growers. More recently, Eve led a multi-year research-based project exploring post-Covid opportunities to translate transferable skills into pathways in the primary industries. She is heavily involved in the primary sector and has served as a judge at the inaugural Primary Sector Awards in 2020 and convened the FMG Young Farmer of the Year East Coast Regional Final in 2025.

CASE STUDY MACRO.4

Southern Institute of Technology: Micro-credential in Geographic Information Systems

Emma Page

“Ākonga have the option to attend classes face-to-face... but, given the work commitments and geographic locations of ākonga in the programme, the majority choose to engage in online synchronous or asynchronous learning... An important principle of HyFlex is equivalency of learning outcomes...”

Context

Southern Institute of Technology's (SIT) micro-credential in Geographic Information Systems (GIS) was developed to meet an industry need to upskill GIS users in the use of ArcGIS Pro software, an industry standard tool. The micro-credential is a professional development programme, consisting 15 credits at Level 6 of the New Zealand Qualifications and Credentials Framework (NZQCF), taught over a 17-week period.

The decision to offer the micro-credential as an online and, later, hybrid-flexible (HyFlex) programme, was the conviction that living and working in regional Aotearoa New Zealand should not be a barrier to accessing opportunities for professional development. It was intended that ākonga from across regional Southland, including Rakiura Stewart Island, could undertake training for ArcGIS, the leading GIS platform, without the need to travel to Invercargill or a larger city. The programme has since expanded to include ākonga from across Aotearoa, in both urban and regional areas.

Initially the micro-credential was delivered to a small cohort of ākonga, all of whom were based in Gore, approximately 63 kilometres from SIT's main campus in Invercargill. Ākonga had the option of attending traditional, onsite classes outside of work hours but, given the commute, all chose to learn online. Teaching and learning were delivered via the Blackboard learning management system (LMS) and a Microsoft Teams LMS integration.

Following the successful first offering of the programme, the School of Environmental Management made the decision to offer the GIS micro-credential as a HyFlex programme in 2022. HyFlex practice was in still in its early adoption stage at SIT but was seen as a blended methodology that could bring growth in enrolments that would improve the sustainability and long-term viability of the programme. HyFlex would scale the programme to reach a wider range of industry professionals, particularly those living and working in regional Aotearoa.

SIT has been offering HyFlex programmes since 2021. These programmes allow ākonga to have choice over learning in the classroom, online synchronous learning, or online asynchronous learning; ākonga can also shift between these modes of engagement as they need or want to. HyFlex was introduced as a deliberate practice supported by digital infrastructure, abatement hours for kaiako redeveloping programmes, and a dedicated eLearning team.

HyFlex practice at SIT is informed by Beatty's (2019) four fundamental values and principles of Hybrid-Flexible course design:

1. **Learner Choice:** Provide meaningful alternative participation modes and enable students to choose between participation modes daily, weekly, or topically.
2. **Equivalency:** Provide learning activities in all participation modes which lead to equivalent learning outcomes.
3. **Reusability:** Utilize [sic.] artifacts from learning activities in each participation mode as 'learning objects' for all students.
4. **Accessibility:** Equip students with technology skills and equitable access to all participation modes. (Beatty, 2019. p.30).

SIT extend the definition of the accessibility value to include accessible course design, drawing upon the CAST (2024) *Universal Design for Learning guidelines* and inclusive pedagogical practices. The Reusability value is extended to include creating long term learning assets, which may be reused over multiple semesters or years and by other kaiako.

While there have been some changes in the demographic of ākonga who undertake the GIS micro-credential, its role continues to be for professional development. The vast majority of ākonga are in work, in roles which require the use of GIS software. Ākonga cohorts are typically comprised of professionals from city and regional councils, secondary school geography teachers, the transportation and forestry industries, and, more recently, engineers.

The SIT School of Environmental Management was able to utilise industry contacts to market the programme to ākonga. A particularly vital connection was made with Land Information New Zealand (LINZ), who saw the need for the micro-credential and offered scholarships to cover the fees of ākonga who had completed a LINZ webinar and wanted to further their GIS skills development.

Description

Ākonga activity

The HyFlex model gives ākonga the choice to complete the GIS micro-credential online, asynchronously. To make this possible, all learning resources are available in the Blackboard LMS. Learning resources follow a sequential order starting with the fundamentals of ArcGIS software, including how to install and navigate the software. Each week contributes toward building confident and independent use of ArcGIS Pro.

HyFlex courses are designed to take a narrative approach, with text, video, diagrams, and discussions embedded in the learning materials. Announcements about the course are posted by kaiako in Blackboard, and in the LMS ākonga can engage with kaiako and their peers using discussion boards and, specific to course materials, through class conversations on each page. Inline progress tracking tools allow ākonga to self-monitor their progress through the materials, and kaiako can also monitor learner engagement in the LMS.

A learning tools interoperability (LTI) integration with Microsoft Teams is used primarily for synchronous class sessions and provides further opportunities for learner to learner, and learner to instructor, interactions and collaboration. Excepting practical activities requiring the use of ArcGIS Pro software, all learning and assessment take place within Blackboard and Microsoft Teams including assessment submission, marking, and giving feedback.

The integration of Blackboard Ally, an accessibility tool, provides ākonga with the ability to download alternative formats for any learning materials directly in the LMS across a range of uploaded file types. This includes audio and electronic braille formats, as well as a Microsoft Immersive Reader option. Kaiako are provided with real time feedback from Ally when creating learning materials about the accessibility of learning resources, why particular content items receive a higher or lower accessibility score, and step by step guidance for improving the accessibility score of any of the learning resources. This supports the development of kaiako accessibility practices leading to a more inclusive programme and ensures all ākonga have equitable access to learning materials in formats which best meet their individual needs.

Blackboard's 'Goals and Mastery' learning functionality allow kaiako to align tasks, assessment, and rubric criteria with programme goals. There are specific GIS software skills which set ākonga up for success, graduate attributes, and the course learning outcomes, and through their 'Goals' panel, ākonga can track their progress toward mastery learning and toward meeting the learning outcomes for the micro-credential. This tracking also assists kaiako to identify where ākonga may require additional support or teaching, while encouraging ākonga to become more autonomous learners.

The vast majority of ākonga enrolled in the GIS micro-credential are in employment, and work in roles which have a need for GIS software use. To suit these ākonga, the programme is designed to provide skills and knowledge the ākonga can apply in their workplace as early as possible. Ākonga are encouraged to draw upon their work experience in class discussions and determine their own topic for the project completed in the programme's second assessment.

Ākonga have the option to attend classes face-to-face at SIT's Invercargill campus where they attend lab-based classes with a combination of theoretical and applied GIS learning but, given the work commitments and geographic locations of ākonga in the programme, the majority choose to engage in online synchronous or asynchronous learning. Because the majority of ākonga being off-site learners, the GIS programme is designed from an asynchronous-first perspective whereby the learning resources in the LMS must provide ākonga with the skills, knowledge, support, and sufficient opportunities for practice. An important principle of HyFlex is equivalency of learning outcomes to ākonga who might choose either in person or online synchronous learning. Online ākonga have access to class recordings, as well as narrative-based learning materials with practical tasks and opportunities to share their practical work and gain feedback from peers and their tutor.

In the final weeks of the micro-credential, ākonga attend a 'Where to next?' session, which covers the types of roles available to graduates with GIS skills and further opportunities for building upon the learning from the GIS micro-credential.

Kaiako activity

Professionals who work with ArcGIS software in their practice are contracted to teach the GIS micro-credential. These kaiako are responsible for planning and delivering lecture and tutorial classes, supporting ākonga with technical challenges they may be experiencing with the ArcGIS software, and marking assessments, and serve as the primary point of contact for ākonga. Kaiako communicate with ākonga through both the Announcements feature in Blackboard and regular recorded synchronous classes, delivered through the Microsoft Teams integration in Blackboard. Synchronous classes are in person if there are any onsite ākonga and livestreamed as Teams meetings for the online synchronous and asynchronous learners. Kaiako can monitor learner engagement and progress using analytics in both Blackboard and Teams.

Early communication with ākonga is critical to ensuring they are engaged and set up for success, as many are new to online or HyFlex learning and ArcGIS software is also new for many, so posing an additional barrier. In the first week ākonga attend a class session in their preferred learning modality, in which they are taken through the course expectations, an overview of how the programme will run, and details about how to install the ArcGIS software required for their course. As SIT supply ArcGIS Pro licences for ākonga enrolled in the course, this installation and the initial login attempts

are a guided process. Kaiako and the Environmental Management Programme Manager onboard ākonga to the software and manage ArcGIS account creation for each ākonga. The Programme Manager is a full-time member of staff in the School of Environmental Management. The Programme Manager attends the first few weeks of classes to support kaiako, and to assist ākonga with any SIT specific information including the available pastoral and academic support and any enrolment issues ākonga may still be working through. The Programme Manager also attends the student project presentations and is available to assist with learning materials updates and marking where it is required.

Kaiako are responsible for adapting existing lesson plans, planning and developing any new lecture or tutorial materials they deem necessary, and for advance checking of any datasets they will demonstrate in class to ensure the class runs smoothly. Kaiako have access to an AV technician and Digital Service Desk support to assist them in the use of classroom technologies and the software used for teaching and learning. As the classes for this programme take place out of standard SIT office hours, it is expected that kaiako are familiar with all tools and technologies in advance of the first class of the intake. Challenges inevitably arise with technology use, so having the Programme Manager join classes helps to alleviate some of the pressure and provides a more experienced user of the classroom technology for assistance.

As kaiako are appointed on casual contracts, they are supported by the Environmental Management Programme Manager and the eLearning team to develop HyFlex teaching skills. The HyFlex modality is more cognitively demanding than traditional face-to-face teaching. Kaiako must be aware of three distinct learner groups while teaching classes: ākonga in the classroom in front of them, ākonga who have joined the class remotely via Teams and may be contributing to discussions or asking questions using the chat, and ākonga who have chosen to watch a recording of the class or engage primarily with asynchronous learning resources. Balancing the needs of these three groups can be a challenge for even experienced kaiako, so it certainly means a steep learning curve for casual staff members who may be completely new to teaching.

SIT's eLearning team provide access to a 'HyFlex for Tutors' Blackboard course to all kaiako teaching in a blended, hybrid or HyFlex programme, as well as personalised support to transition to HyFlex teaching. The professional development for kaiako to adopt HyFlex practice applies a coaching approach, over a two-year period. The development is made up of a five-step process of learning materials redevelopment, coaching, and evaluation. Two kaiako and the Programme Manager for the GIS micro-credential have been through the HyFlex support process, with varying levels of engagement reflecting their respective needs. A third, new kaiako was onboarded in 2025, and has access to the resources and support associated with the HyFlex model.

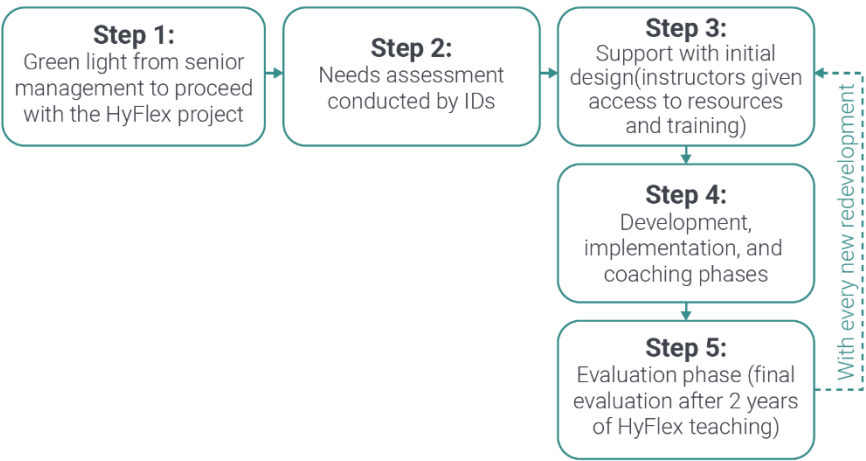


Figure 1: SIT's HyFlex project process (Manuel and Watt, 2025)

Kaiako also take on a developer role, following the lead of the kaiako who initially taught the first offering of the GIS micro-credential and wrote all of the original learning materials for the programme. The original assessments have been refined by kaiako and Programme Manager to better meet the programme outcomes. All kaiako who teach programmes at SIT, including the GIS programme, have full autonomy over the learning materials and are able to draw upon instructional design support from the eLearning team to create, update, and refine the learning resources each intake to adapt to the changing needs of industry, their own teaching style, and the needs of the cohort they are teaching.

Resources

All learning materials including the programme handbook, recordings of lectures and tutorials, are provided in the Blackboard LMS and Microsoft Teams. As the course is highly focused on the teaching of GIS software, ākonga are required to have access to a computer and internet connection. Where ākonga do not have access to a suitable device to run ArcGIS software, they are able to borrow a loan laptop from the SIT library. For off campus ākonga, these are sent by courier with return slips.

Online learning resources include lecture PowerPoints, readings, datasets, discussion boards, links, and software tutorials. These are created with the HyFlex values of reusability and accessibility in mind, where resources for each engagement modality overlap, so they can be reused by all ākonga, whenever possible (Beatty, 2019).

Learning materials are highly practical, encouraging ākonga to explore ArcGIS software, and providing them with a range of datasets to use when creating maps for a range of industry relevant purposes. Discussion tasks prompt ākonga to share the maps they

have created, to discuss the methods used to create their maps, and to generally facilitate a forum for collaboration and constructive peer feedback.

Kaiako are currently practising industry professionals, so can provide authentic datasets and discuss current real-world applications and challenges in the use of GIS tools. This helps ākonga to understand and experience how the tools are used, and the types of mapping work being undertaken in industries and workplaces which may differ from their own. This currency and range are valuable for ākonga to be exposed to, so they can better gain insight into how they can use their developing skills in their own workplace and get a broader sense of what is possible with the GIS software.

When developing learning resources all kaiako have access to the eLearning team's instructional designers to support course design, development, and evaluation. HyFlex programmes at SIT come with a teaching hours abatement in the year they are first redeveloped for HyFlex delivery. These hours are used by the developing kaiako to reimagine learning materials as asynchronous-first, adapt learning resources to be reusable across the learning modalities, and ensure that each ākonga's choice of modality can provide equivalent learning outcomes to their peers. All HyFlex redevelopment work is supported by the eLearning team and, in the case of the GIS micro-credential, has been highly supported by the Programme Manager who has experienced being both an instructor and a learner in HyFlex programmes.

Timetable

The GIS micro-credential is offered over a 17-week intake, with three intakes per year. The first seven weeks consist of lectures and related tutorials which develop ArcGIS Pro software skills. Ākonga can attend these in person or synchronously online, with recordings and asynchronous learning materials available in the LMS for asynchronous ākonga and those wanting to revise. The following weeks focus on application of the GIS software, and ākonga are encouraged to contextualise their learning to their interests or workplace.

All lectures and tutorials take place in the evening, to accommodate the work schedules of both the kaiako and ākonga.

Ākonga can book in 15 minute one-on one sessions with their kaiako at several times throughout the intake to assist with any challenges they are encountering, and for support and guidance around their GIS project. All kaiako teaching in the GIS micro-credential are industry professionals who are employed to teach the programme on a casual, contract basis with a fixed number of hours per week. The specific times which ākonga can book in helps to ensure that the school is meeting the individual learning needs of ākonga, while keeping the number of teaching hours within the kaiako's contract.

The GIS micro-credential is comprised of just one 15 credit course, which ākonga complete over their 17-week enrolment period.

Assessment

Assessments in the GIS micro-credential were developed and are marked by kaiako, who are industry practitioners. Assessments undergo a pre-moderation process before being made available to ākonga. The pre-moderation process is intended to quality assure assessments, as required for all programmes at Level 6 of the New Zealand Certification and Qualifications Framework (NZQCF). Pre-moderation confirms assessments are aligned with the programme learning outcomes; and that instructions and marking rubrics are clear and adequately describe the task and success criteria. The programme and its assessments are regularly moderated to ensure consistency of marking and quality of feedback.

The assessments for this programme have changed since the first offerings of the micro-credential, in response to how ākonga engaged with them. The initial assessments required a substantial amount of written work and, as ākonga are undertaking the programme for skills based professional development purposes, many chose to engage with the course but not to complete assessments. SIT's aim was to ensure ākonga graduate with the micro-credential, so to address ākonga taking an audit approach to the programme assessments were redeveloped to better reflect authentic assessment practices. Assessments now closely reflect how ArcGIS software is used in various industries, allowing ākonga the autonomy to contextualise assessments to their workplace projects where they wished.

All ākonga have the opportunity for one-to-one time with kaiako, either in person or via Microsoft Teams, leading up to their assessment to check their selected project allows them to successfully meet the assessment requirements and course learning outcomes. These sessions also provide individualised support and guidance.

The GIS programme has two assessments, weighted at 40% and 60% respectively. The first assessment requires ākonga to create a series of maps to show the distribution of a native bird population, with an accompanying report. The report outlines the approach taken to generate the maps and relevant geospatial information and discusses the affordances and constraints of their chosen methodology. It is intended that the assessment task replicates a task a graduate of the programme may be required to do in the workplace.

The second assessment is more flexible. Ākonga identify a project of interest which can demonstrate their GIS skills, one that has them to capturing data, incorporating existing data sets, and demonstrating geospatial processing skills. The project includes a short presentation to the class, replicating the practice of presenting a project to stakeholders

in the workplace. Ākonga are expected to attend the presentations synchronously, either in person or online.

Ākonga are required to submit both assessments and maintain an overall grade of 50% or above to successfully complete the micro-credential.

Institutional ākonga success services

All ākonga at SIT, including those enrolled in shorter courses such as micro-credentials, have access to SIT's student services. This includes counselling services, a health clinic, employment, learning assistance, Māori and Pacific liaisons, ākonga Māori peer mentoring, accessibility support, library, and the Digital Service Desk.

Particularly important for the GIS micro-credential is the laptop pool from the library. Ākonga can loan a laptop for the duration of their study to help reduce the financial and technological barriers to engaging. In addition, ākonga in this micro-credential are supplied with licences to ArcGIS software, which they require for practical components of their learning and assessment. These licences are managed by the Environmental Management Programme Manager, with technical support provided by the GIS kaiako and the Digital Service Desk.

Within the Blackboard environment ākonga have access to IT and library non-credit bearing courses, which provide digital literacy training, support for navigating and using Blackboard, step by step guides to accessing library services and databases, and research and referencing skills. SIT will soon add an academic skills course covering academic reading, writing, and presentation skills, and a 'Skills for Success' course which will provide support for developing metacognitive strategies, time management, and goal setting.

Kaiako teaching HyFlex programmes are engaged in ongoing professional development, delivered by SIT's eLearning team. This includes learning to support and guidance for engaging online learners, both synchronously and asynchronously, to build rapport; monitor ākonga engagement; and put early intervention strategies in place to ensure ākonga success. As the GIS micro-credential intakes are often large classes, additional staffing is in place to provide pastoral support to ākonga.

All kaimahi at SIT complete regular training in the Pastoral Care Code to ensure ākonga wellbeing, safety, and support.

Constraints

SIT's adoption of HyFlex has meant the GIS programme can reach a much wider audience than a purely onsite version of the programme, which would require ākonga to attend on campus in Invercargill. The support systems have evolved with the

programme over the past three years to better meet the needs of kaiako who are new to HyFlex teaching and confined to a casual contract. Despite this it can be challenging to onboard new kaiako in advance of course start dates, as onboarding often falls outside of their contracted hours. The role played by the Programme Manager to support kaiako and ākonga help to fill the gap in HyFlex teaching experience for new kaiako in the first few weeks of teaching also provides some consistency across the important ākonga intake period and continuity between kaiako.

The structure of licencing packages for the ArcGIS Pro software means class sizes are capped to ensure all ākonga have access to a software licence, avoiding unused licences each intake. Any unused licences increase the operational costs of the programme. The popularity of the programme has meant that, instead of declining entry to ākonga to limit class sizes, an additional intake has been added to meet demand. Licencing is a large administrative task often performed by the Programme Manager, sometimes with kaiako support; each ākonga licence is manually configured. To streamline things the School of Environmental Management has developed a standard onboarding process, to be certain that all ākonga have access to the required software, their login credentials have been sent out, and that ākonga have received instructions for installing and logging into the ArcGIS software.

Managing kaiako workload is always a priority when working with kaiako contracted for a small, fixed number of hours per week. In the first few intakes of the programme, it was found that up to 26 ākonga is a manageable workload for one kaiako to provide teaching, pastoral care, and to undertake the marking of assessments. Although a relatively new practice at SIT as the organisation adjusts to the demands of HyFlex teaching, additional staffing is appointed for the GIS programme when an intake has more than 26 ākonga. While high demand and a strong number of enrolled learners is a good problem to have, it requires having kaiako or industry contacts who are keen to teach the GIS programme available to take on an additional workload.

There is a lot to learn when becoming a blended or hybrid teacher. There is always the concern when appointing a new kaiako to the programme that the shift not only to teaching, but to HyFlex teaching, will be overwhelming or discourage kaiako from continuing. SIT have been fortunate to be able to retain kaiako across multiple years, adding new kaiako to pick up any additional intakes which are offered that existing kaiako may not be available to teach. The Environmental Management Programme Manager has played a key role in supporting kaiako to develop teaching skills, HyFlex teaching practices, resource development, and managing workloads. The 'HyFlex for Tutors' programme and coaching from the eLearning team further supports developing a strong pool of passionate, skilled HyFlex practitioners to deliver the GIS programme.

Evaluation

The GIS micro-credential programme was first delivered in 2022 as an online micro-credential with four ākonga enrolled. Since 2022, it has evolved to be delivered as a HyFlex programme with two intakes per year in 2023 and 2024 and three intakes in 2025, as ArcGIS software has become an industry standard resulting in an increased demand for ArcGIS training. The first intakes of the programme had fewer ākonga successfully completing the micro-credential than expected. It was found that ākonga were choosing to engage in classes and work through the learning materials, but not complete or submit assessments. Redesigning assessments to better reflect authentic application of the learning outcomes and allowing ākonga to undertake a project directly related to their work saw a marked increase in successful qualification completions, from 75% successful completions in 2022 to an average of 83% in 2024 and 2025.

Several factors have been critical to the success and growth of this programme. Firstly, there is the timeliness of the micro-credential's availability. Although released in 2015 the ArcGIS Pro software is only recently an industry standard, so has seen increased adoption over the last few years. In the time the programme has been offered a university has also started offering an online GIS micro-credential, however this has not had a significant impact on enrolments because the university programme focusses on an alternate application, allowing both programmes to cater to different learners and industry needs to each other.

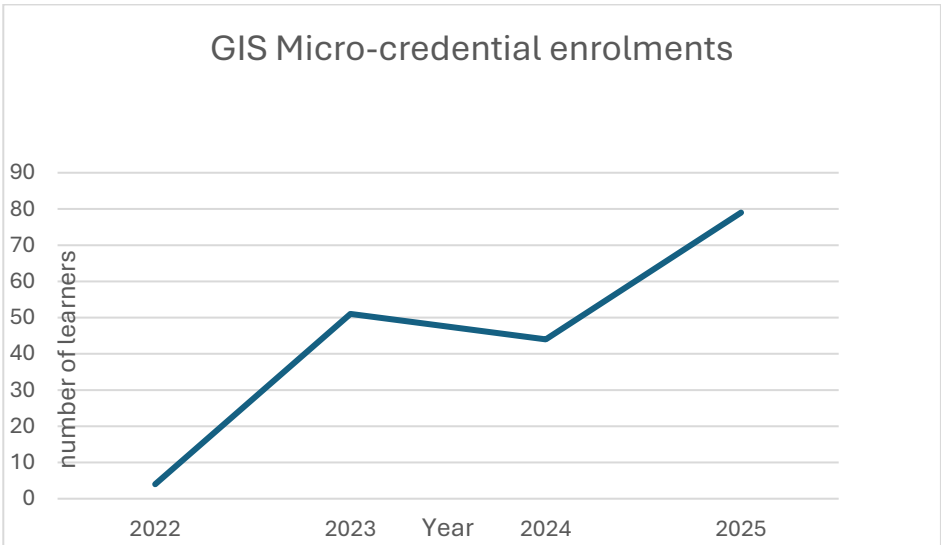


Figure 2: *Ākonga enrolments in GIS micro-credential*

Secondly, partnering with organisations such as LINZ has helped to create pathways from LINZ GIS webinars to SIT's micro-credential and increases the awareness of the

programme. Targeted marketing through industry contacts resulted in the rapid growth of enrolments in the programme: four ākonga in 2022, 51 in 2023, 44 in 2024, and 79 enrolled thus far in 2025 (Figure 2). Early enrolments for 2026 are promising, with almost a full first intake as at August 2025.

The third and most valuable success factor is the kaiako who have developed the learning resources and teach the GIS micro-credential. Kaiako are passionate industry practitioners who see real world value in growing their ArcGIS skills, particularly in regional New Zealand. The ability of kaiako to bring workplace experiences, authentic data, and real-world applications GIS into the classroom has created a highly relevant, engaging programme. While not all kaiako who teach this programme have needed or wanted to engage with HyFlex teaching support systems outside of the School of Environmental Management they are all aware that support is available and how to access it, as well as the availability of asynchronous professional learning and support channels. The programme has developed a strong reputation for quality and industry relevance, as demonstrated in the number of enrolments which occur through word-of-mouth recommendations.

Opening the GIS programme up to HyFlex delivery has allowed SIT to reach ākonga from across Aotearoa New Zealand, ensuring that being physically located outside of a major city is not a barrier to professional development. The success of this programme has influenced other programmes at SIT to adopt HyFlex practices.

Editor's notes

In this case study we can clearly see that blended models can provide more than just flexibility; they can also offer valuable choice, for all learners near to or far from a campus. The mix of an LMS, in this case Blackboard, with videoconferencing, in this case Microsoft Teams, can be leveraged in ways that make small classes viable. The learning materials, no doubt the result of a large initial investment, are maintained by active industry practitioners who engage on casual contracts. This represents a strong vocational focus, with a national reach and manageable delivery costs.

The change to assessment is a significant contribution to this book's focus on blended learning. Replacing written work, likely essays or short-answer recall questions, with work-relevant projects nicely underscores the extent to which blended learning models can be both grounded and flexible.

It is clear that the HyFlex model as presented here relies heavily on dedicated kaiako on casual contracts. The Programme Manager seems to serve a vital backstop, providing a point of continuity and, no doubt, escalation for any teaching and learning related matters. The kaiako role, and that of sympathetic support services for ākonga and kaiako – extending even to the support of designing learning materials – make this an interesting and very successful blend. The degree of institutional alignment here across the HyFlex approach is particularly striking.

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Author profile

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CASE STUDY MACRO.5

Southern Institute of Technology: New Zealand Certificate in Learning Design (Level 6)

Melissa James | Sue Deuchar

“Study with SIT Online is online, asynchronous, and self-paced. Success in this context requires akonga to be independent and to engage in the learning process autonomously and actively, which places an increased demand for self-regulation...”

Context

This case study examines the New Zealand Certificate in Learning Design (Level 6) (NZCLD L6), offered by SIT Online, the online learning faculty of Southern Institute of Technology (SIT). The qualification is intended for educators and trainers in the adult and tertiary education sector, who

specialise in learning design to improve curriculum, teaching practice and learner outcomes for their own and others’ practice.

Graduates of the qualification will have the skills and knowledge to analyse learning design requirements and design and evaluate solutions and outcomes, including solutions that have a significant focus on technology-enhanced learning and teaching (NZQA, n.d., Strategic Purpose Statement).

This statement positions the NZCLD L6 as a practical and work focussed qualification, which underpins a blended learning approach that connects learning with authentic professional practice. The intention of the blended model was to bring together multiple dimensions of the learning experience, including theory and practice; workplace and academic contexts; individual and collaborative learning; reflection and action; and the integration of concepts, systems, and patterns across learning activities and assessments. This approach recognises that contemporary learning designers increasingly need to recognise interconnections, relationships, structures, and patterns

that operate across educational systems, rather than simply acquire and reproduce content knowledge.

The NZCLD L6 qualification is 60 credits, provided through three 20-credit courses in the SIT Online programme of study. The courses are designed to sequentially align with the Graduate Profile Outcomes (GPOs), which themselves follow a logical and industry relevant progression of analyse, design, and evaluate. The first paper was delivered in the second half of 2022, with the remaining papers released at the beginning of 2023.

The programme includes a 60-hour work-integrated learning component, specifically designed to have ākonga collaborate with colleagues in their workplace. This mentorship component mirrors collegial workplace activities in learning design, such as the collaboration between learning designers, subject matter experts, and other stakeholders required for successful project outcomes. The work-integrated learning component also reflects the Māori pedagogical approach of *tuākana-teina*,²⁴ which highlights the value of knowledge-sharing, mutual respect, and growth through collaborative relationships. This approach enriches both individual development and collective practice, while affirming cultural values that recognise learning as a shared and relational process (Rātima et al., 2022, p. 20).

The context bound nature of knowledge acquisition in the programme lends itself to a constructivist approach, so the learning arc across the courses demonstrates the cumulative nature of learning as ākonga build their understanding and skills. Blended learning also aligns well with andragogical principles, as it supports adult learners' need for flexibility, self-direction, and the application of prior knowledge to authentic, practice-based contexts (Blaschke, 2019). It is often assumed that adults, due to their age and accumulated experience, are more adept at identifying what they have learned in the past, what they want to learn in the future, and the ways in which they learn best. However, adult students bring a wide range of abilities, experience, expectations, biases, and prejudices to their learning which can both assist and sometimes hinder knowledge acquisition.

Study with SIT Online is online, asynchronous, and self-paced. Success in this context requires ākonga to be independent and to engage in the learning process autonomously and actively, which places an increased demand for self-regulation (Edisherashvili et al., 2022), an important and transferrable soft skill in today's workforce. The majority of SIT Online ākonga are working while studying, and this study model gives them freedom to access learning on their own schedule and at their own pace. A further benefit to ākonga is a better balance of work, family, and study. This flexibility also supports access for a wider range of learners including those geographically distanced from educational institutions, and those non-traditional ākonga requiring greater

²⁴ Literally 'elder sibling - younger sibling,' an approach whereby more experienced peers support those earlier in their study journey. Sometimes represented in plural forms: *tuākana-teina*.

accessibility. By removing the constraints of time and place, online asynchronous learning enables ākonga to engage in ways that suit their individual needs, ultimately promoting greater inclusion and equity in education.

Progression through the NZCLD L6 courses reflects the programme's blended learning philosophy by anticipating the ākonga journey from multiple perspectives: the technological, where learners engage with a variety of platforms and tools; the conceptual, where conceptual understanding and cognitive schema development are scaffolded from novice to expert; the systemic, where coherence is maintained across the micro, meso and macro levels of the instructional system; and the social, where collaboration and belonging are fostered. These aspects intersect with cultural, affective, metacognitive, and temporal dimensions, together shaping the lived experience of learning. Building on this foundation, the progressive course design carries a deliberate future-proofing intent. The foregrounding and sequencing of concepts, systems and patterns familiarises ākonga with the modes of thinking that align with the logics of emerging technologies, such as generative artificial intelligence (GenAI), which are increasingly embedded within educational and professional practice.

Description

Ākonga activity

In designing the NZCLD L6 programme of study, course developers intended that the ākonga experience should extend beyond the achievement of predetermined learning outcomes, use of technologies such as learning management systems (LMSs) and authoring tools, and digestion of factual knowledge. The developers positioned the ākonga journey as an immersive, multisensory, and dynamic process in which ākonga actively engage, co-construct meaning, and accommodate and assimilate key concepts through effective scaffolding and interaction. In doing so, ākonga develop increasingly sophisticated mental models and systems perspectives, enabling deeper understanding of the complex, dynamic, and interconnected nature of learning design contexts (Sagr et al., 2026).

The design of the blended model emphasises the principle that 'concepts are king,' not 'content is king.' This approach reflects the conviction that conceptual, systemic, and pattern-based design orientations are foundational to learning design in the 21st century and beyond. A sense of familiarity and structure that supports learning is built through materials and activities designed to highlight recurring structures in pattern-based formats, for example cause-effect, problem-solution, cycle, and framework. Patterns in engagement such as rhythms of challenge and reflection, and cycles of collaboration, are also deliberate elements of design.

The future-focused orientation of the programme is not presented as an additional layer; rather, it is woven into the course design itself. In this way, ākonga develop the ability to identify the concepts, patterns, relationships, and systems embedded within subject matter, rather than focusing solely on content. Ākonga learn to distinguish between the volume of content and its conceptual complexity, ensuring that learning effort is aligned with the significance, interconnectedness, and transferability of concepts rather than the amount of content associated with them. By recognising recurring patterns and structures across domains, ākonga build capabilities in systems thinking, knowledge transfer, and adaptive expertise. These capabilities are increasingly important in AI-enhanced environments, where content generation is becoming abundant and accessible, while the ability to discern significant concepts, understand relationships, navigate complexity, and exercise sound judgement remains essential.

For ākonga, the learning experience extends beyond reading content and completing assignment tasks. A typical study session commonly involves moving between theory, reflection, discussion, and workplace application. Ākonga might begin by engaging with a concept such as constructive alignment or systems thinking, before critically reflecting on how the concept is evident, absent, or challenged within their own educational context. They may then discuss their observations with peers or colleagues, test their thinking against workplace realities, and refine their understanding through iterative cycles of feedback and reflection. In this way, learning is experienced as an active process of inquiry, integration and meaning making.

As ākonga progress through the programme, they are expected to create authentic artefacts such as needs analyses, learning design documentation, curriculum maps, assessment plans, storyboards, evaluation plans, and mentoring resources. These artefacts are developed in real educational and training contexts, and are frequently informed by interactions with learners, colleagues, subject matter experts, and other stakeholders. Consequently, assessment creation is characterised by cycles of investigation, design, implementation, evaluation, and refinement.

The principles of constructive alignment are embedded in the learning experience, in that ākonga practice and acquire concepts that highlight the importance of ensuring robust alignment across their learning and their actual design work. Constructive alignment learning and skill acquisition extends across the instructional system, from the ‘macro’ level of the instructional system set by the New Zealand Qualifications and Credentials Framework (NZQCF) GPOs and qualification intentions; through to the meso level that includes assessment design and subject matter orientated concept definition within high-level design plans; to the ‘micro’ level, concerned with the likes of storyboard narrative and formative activities.

The aim of the SIT Online NZCLD L6 programme, under continuous review, is to equip ākonga with the skills required for the rapidly evolving future of learning design.

In their futures, learning designers may increasingly act as critical reviewers, curators, and editors of GenAI and artificial general intelligence (AGI) generated outputs rather than being originators of content and structure themselves.

Kaiako activity

The ākonga cohort mostly consists of individuals who already have some experience in education or learning design across training, educational, commercial, and professional contexts. Many bring with them established practices, workplace knowledge, and prior exposure to digital platforms, tools, and design methodologies. This prior experience provides a strong knowledge foundation at times, but it also shapes assumptions and habits that are not necessarily aligned with evolving best practice in learning. The programme and its kaiako seek to broaden ākonga perspectives by emphasising design as a systemic, conceptual, and learner-centred practice. Kaiako support, lead, and accompany ākonga on their learning journey to step outside of any preconceived notions that learning design is about ‘putting content up to digest’ in the ‘snazziest way possible,’ as ‘fast as possible.’

Kaiako encourage ākonga self-reflection and connection to workplace reality, and model, mentor, and provide clarifying examples of what good leadership and evolving practice in learning design looks like. Kaiako also support ākonga through complex design processes such as high-level design planning; storyboard and asset creation; navigating macro, meso, and micro instructional system considerations; assessment design and development; and broader systemic understanding across learning design processes and practices. Summative assignment marking is also done by kaiako, using prescribed marking schedules. Feedback is structured to include general commentary as well as points directly related to the schedule, and ākonga may engage in further discussion of marks or feedback if further clarity or discussion is desired.

From an administrative perspective, kaiako monitor ākonga initial access and engagement, encourage ongoing engagement, initiate SIT withdrawal and non-engagement processes when required, and assist with pre-enrolment queries. Kaiako are supported by a Programme Operations Manager (POM), who has an administrative role covering enrolment approvals, moderation, and programme review and development. The kaiako and POM also have access to the wider SIT range of support services. Additionally, both engage in regular professional development across domains relevant to their practice, including culturally responsive pedagogy, pastoral care, quality assurance, and future-focused practices aligned with emergent trends in learning design, adult education, and training.

From a pastoral care perspective, kaiako play a key role in creating an environment where ākonga feel supported and valued; are safe to encounter challenges and take calculated risks; and are empowered to make judgements and decisions in their learning. This extends to responding to the diverse needs of the cohort and the individual; the

consideration of cross cultural, cross context and cross platform challenges and nuances; and recognising the personal and professional challenges that ākonga might encounter while studying alongside work and other commitments.

Kaiako are the main contact for ākonga throughout their study. Having a dedicated kaiako for each course ensures consistent guidance and support. Kaiako provide an introductory message or video, including contact information, in the 'Welcome' module of the course LMS, Blackboard. This message aims to make connections with ākonga, outlining the support on offer, clarifying what ākonga need to do to begin, how the course will run, and what is expected of them. Kaiako continue to post messages throughout the intake. Kaiako can foster engagement and motivation by building good relationships with ākonga through personalised feedback that reflects an understanding of each learner's progress.

Overall, the kaiako role is positioned as a 'mentor in the middle,' rather than 'guide on the side.' This framing reflects an intentional position of kaiako as active participants, working alongside ākonga within the learning community. In this way kaiako contribute their expertise, professional judgement, and lived experience to help ākonga interrogate assumptions, test emerging ideas, and refine design decisions. Kaiako provide both challenge and support, encouraging independence and critical reflection, while serving as a stabilising presence as ākonga navigate complex tasks and the dynamic transitions and interconnections of complex adaptive systems.

This positioning enables kaiako to model effective 'lead learning design' practice in real time, so they can demonstrate inquiry, iteration, alignment, and evaluation in ways that mirror the dynamics of authentic workplace learning design team contexts. This approach is increasingly important as the profession rapidly evolves from traditional learning design practices, towards learning design as a GenAI assisted profession. The asynchronous online delivery model supports scalability by enabling kaiako numbers to be adjusted in response to changes in enrolments, ensuring that learner support and engagement can be maintained as ākonga numbers increase.

Resources

Ākonga are provided with study guides that contain scaffolded, concept orientated narratives; multisensory activities; and formative opportunities for pre-assessment design practice. These guides are provided in both a fully online and PDF format for offline study and reference. Guides are intentionally developed to begin with key foundation concepts and introductory narrative, then scaffold ākonga from 'zero to hero' as they progress toward further acquisition of each set of sub-concepts or related concepts before shifting to the next.

The learning path within each study guide holistically considers principles of best practice in learning design, cognitive loading, constructive alignment, and learner time

on task. Each week's learning relates directly to an assignment task, is calculated to be no more or no less than the credits or learning hours allocated to that task and considers the intrinsic value of each learning activity and the challenge it provides for ākonga to develop conceptually orientated cognitive schema, practice, and apply what they are learning.

This approach aligns with established curriculum frameworks that emphasise concept-based learning and transferable understandings, including the *International Baccalaureate Middle Years Programme (MYP) Curriculum Guide 2024-2025* (International School of Paris, 2024), and the *New Zealand Curriculum Key Competencies* (Te Kete Ipurangi, 2020). By organising learning around interconnected concepts rather than isolated content, the programme encourages systems thinking and the application of knowledge across diverse contexts while supporting educational priorities associated with global citizenship, sustainability, intercultural understanding, and international cooperation (Rieckmann et al., 2017).

Cost-effectiveness in resource development is achieved through reusable assets and narratives, digital-first approaches, and minimal reliance on specific proprietary technologies and tools. Ākonga are encouraged to make use of free trials of online applications, rather than rely on institutionally supplied subscriptions. This approach also encourages ākonga to develop tool agnostic capability, ensuring graduates are not tied to any single application or platform. Courses can then emphasise concepts, frameworks, practices, and processes that apply across tools and platforms. This shifts the emphasis from simply learning how to operate software, to developing the skills to select and utilise tools appropriate for the task.

Kaiako communicate to ākonga twice weekly via announcements in Blackboard. Announcements are drawn from a pre-developed communication plan, that aligns to the learning path in the study guide and to assignment due dates. These supportive announcements are in a variety of forms, are designed with varying purpose, and deliberately adopt particular tones of voice and intonation. For example, some messages are content focussed, highlighting important aspects of weekly coursework or encouraging reflection to help ākonga create interconnections between the familiar and unfamiliar. Other announcements are designed to be motivating, such as highlighting successful progress or a reminder to reach out for help if needed and are positioned at potential low points in the learning journey when ākonga may be losing interest, momentum, or confidence.

Timetable

Each intake in the NZCLD L6 programme runs for 19 weeks. Four intakes are offered each year, roughly equating to traditional academic semesters though with earlier or later starting options (that is, February or March, and June or July). As the compulsory work-integrated learning component requires ākonga to collaborate with colleagues in

their workplace, this semester-based approach accommodates tertiary education based ākonga as well as those working in industry organisations.

Ākonga need to complete the three courses in the programme sequentially, so they can only undertake a maximum of two courses per year. An additional late-year intake is offered in some years. Most ākonga complete the NZCLD L6 in consecutive intakes, but the programme has an academic timeframe of three years which means ākonga are likely to be studying alongside both familiar and new peers. However, the sequential nature of the courses means all ākonga in one course are at the same point in their learning journey, offering greater opportunities for meaningful learner-to-learner interactions for sharing information and experiences, and helping clarify understanding and expectations. This alignment strengthens learning for all.

All learning material is available from the start of an intake to facilitate self-paced learning. Materials are organised into modules of varying lengths depending on the number of weeks required for a specific topic or learning outcome, with summative assessments due at relevant points related to these modules. Weeks without active learning are also scheduled in the modules, to allow for completion of assessment activities. These allowances are typically one week prior to an assessment due date, with an additional week's allowance at the end of the intake to allow for any ākonga requiring an extension.

Ākonga complete approximately 200 hours of learning in each course, which is equivalent to approximately ten and a half hours per week. This includes time spent engaging in readings, videos or podcasts provided through Blackboard as well as independent research, practice activities, time spent on work-integrated tasks related to assessments, and constructing assessment responses.

Although ākonga have the flexibility to complete learning at their own pace within each module, they still need to meet the specified due dates for each assessment. This structure provides a clear road map that supports effective time-management. A weekly structure can also help reduce cognitive load, preventing students from feeling overwhelmed by the entire course at once, and deter procrastination that can lead to last-minute stress.

Assessment

Assessment tasks are constructively aligned to the 'active verb, concept, context' nature of course learning outcomes. All assessments are achievement based, and ākonga must achieve a cumulative minimum of 50% across all assessments to pass each course. Each summative assessment task is weighted to align marks proportionally to the course learning outcomes, the qualification GPOs, and indicative credits. Ākonga time on task and the relative placement within their learning path are also considered with the same focus on alignment. This constructive alignment weighting practice assists with ensuring

that ākonga are not under- or over-assessed, and that there is not an under- or over-representation of content in alignment with the intrinsic value of a specific course concept and GPO weightings. Ākonga are also provided with supporting formative activities and practice tasks that prepare them for assignment completion.

The assessment pathway follows the progressive ‘analyse, design, and evaluate’ learning arc, embedded across the programme of study. Summative discussion activities are peppered across the assessment regime and encourage ākonga to share ideas and experiences on topics such as embedding Māori pedagogies, selecting tools, and articulating design model comparisons and design requirements. Discussions also have ākonga reflect collaboratively on topics such as stakeholder perspectives, stakeholder negotiation and management, and the challenges of aligning theory with practice.

In the first course, which focuses on the ‘analyse’ aspect of the progressive learning arc, ākonga research and critically analyse instructional design models by describing their phases, benefits, and applications to real-world design contexts and projects. Ākonga are also required to evaluate learning design requirements in dynamic situations. The assessments in this first course assist ākonga with understanding the complex adaptive system orientation of learning design in practice and are concerned with developing course structures and assets that align to the macro, meso, and micro aspects of instructional and organisational systems. Ākonga create a Terms of Reference (TOR) or Instructional Design Document (IDD) for a chosen learning or training unit related to their own context. This task requires analysing the context, needs, and goals for the unit, defining project scope, clarifying learning outcomes and assessment approaches, and identifying relevant stakeholders and their roles across the project.

In the second course, focused on the ‘design’ aspect of the progressive learning arc, ākonga design assessment tasks from given course descriptors. Their responses must demonstrate constructive alignment, and all assignment instructions are to be clear, self-directed, and suitable for the delivery context. They are also required to develop detailed marking rubrics for these assessments that are balanced, measurable, and relevant. In addition, ākonga create a portfolio of artefacts for their contextual learning or training unit from the first course, which includes articulating or developing graduate outcomes and curriculum lists, mapping outcomes to courses, writing a full course description, producing a storyboard and learning assets, and compiling peer feedback with a reflective evaluation of their learning journey.

In the final course, aligned with the ‘evaluate’ aspect of the progressive learning arc, evaluation in learning design practice is assessed. Assessment here involves the design and development of an evaluation plan for the contextual learning or training unit from the first two courses. Ākonga must reference instructional system design strategies at the macro, meso, and micro levels of the system, feedback and quality assurance techniques and tools, and pedagogical aspects. The second assignment in this course focusses on mentorship, requiring ākonga to collaborate with and mentor a colleague to

enhance the use of learning design in their practice. This involves ākonga articulating their role as mentor and collaborator, identifying the roles and responsibilities of other design team stakeholders, and defining and describing nuances around the skills, capabilities, working relationships, and interdependencies that exist within the design team with an emphasis on the mentee. This practical, work-aligned assessment also requires ākonga to design and develop a collaborative design journal that describes communication and collaboration efforts with the mentee, project progress, monitoring and control activities, and the expected progress and outcomes of each phase.

Institutional ākonga success services

All ākonga enrolled with SIT Online have access to the full range of academic and health and well-being support through the SIT Library, Digital Services, and Student Support Services. Availability of services is promoted on the SIT website and in a Study Toolbox module included in each course in Blackboard.

For academic support, the library offers assistance in person and by phone, email, video call, and desktop sharing. The library can help in sourcing reading material, and in guiding ākonga with database searching and APA referencing. Advice and support for assessment writing or other study skills is available both on the library website and in person from the Learning Support team. Laptop loans for the duration of study can be arranged through the library.

Support for physical, mental, and spiritual wellbeing during study is also available for online ākonga via a health nurse and counselling service. SIT's Disability Advisor offers support and advocacy for ākonga with physical impairments that create barriers or hinder learning, and the Study Toolbox module gives guidance on using the accessibility tools available in Blackboard. SIT Online also have both a Māori and Pasifika Support Officer who can be contacted via phone or email. There is a welcome email from both on each course in the Welcome module in Blackboard, which is an easy reference point for ākonga at any time in their learning journey.

As the NZCLD is a level 6 qualification and has a preferred pre-requisite of an adult teaching qualification at level 5, ākonga are generally familiar with academic expectations and their interest and experience in learning design tends to mean they enter the qualification with a good level of digital and information literacy. However, many may be new to Blackboard as the LMS and so, particularly at the beginning of an intake, technical issues related to online learning can be a source of stress and friction. IT assistance is available via phone and email, and there are FAQs and other guidance through the MySIT ākonga portal.

Struggling or non-engaging ākonga are identified by the kaiako, POM, or Blackboard analytics at various points in an intake, and automated messages can be sent via the Student Information Management System. However, personal contact from the kaiako

or POM is the preferred, and typical, initial communication method. Where a need is identified by a kaiako or ākonga, SIT Online also offers one-to-one peer tutoring for ākonga who may be struggling with understanding course materials.

Constraints

As with all programmes, a range of external and internal factors influence the design, development, implementation, and ākonga experience at the macro, meso, and micro levels.

Advances in GenAI have a universal effect. In the learning design context, the pace of technological change presents significant challenges for ākonga as they seek to remain current with evolving practices and innovations in learning and training design. This is particularly evident given the reduced timeframes and costs enabled by rapid development applications currently being trialled across education and training organisations throughout Aotearoa New Zealand. While the graduate outcomes of this qualification are designed to encompass these shifts, a more rapid cycle of review and update needs to occur to ensure this programme of study remains contemporary and relevant. The organisations that ākonga are developing and training for are also challenged by GenAI, with the general expectation that courses can be developed faster, for less investment. Academic integrity and artefact originality also challenge institutions, and those ākonga who are financially or organisationally advantaged often have access to superior GenAI subscriptions that can provide better results, highlighting potential inequities and disparities in learning.

The institutes of technology and polytechnic (ITP) sector in Aotearoa New Zealand has undergone several years of change, most recently merging into a single entity that has since been disestablished. These changes brought a general uncertainty, leading to loss of kaimahi in multiple support services and general funding restrictions resulting in hiring freezes. Distance delivery was particularly hard hit through changes in funding, which limited the scope of course development and updates.

At the macro level, an interesting constraint the programme faced is the result of each course being designed and built by a different developer. Institutional funding limitations, limited time between programme approval and the planned delivery date, and limited access to learning design kaimahi at SIT contributed to this situation and led to variations in the layout and presentation of course materials in Blackboard including the number, type, and functionality of interactive experiences. This meant the initial programme experience was not as cohesive as it was intended to be and much of the first two years of delivery were focussed on identifying and rectifying this diversity, within budgeting and resourcing constraints.

The sequential nature of the course design, along with 19-week intakes, means that it takes ākonga 18 months to complete the qualification, which has received some negative feedback. The long enrolment period also makes it harder for ākonga to analyse, design and evaluate a single learning or training unit, reducing the potential benefit of seeing a project through all stages to end-user outcomes.

There is also some room for improvement in the range of platforms and authoring tools ākonga encounter across the programme. It is possible, particularly in the second design focussed course, to provide ākonga with greater opportunity for enhanced active creation, where they might use a broad range of digital tools to practice designing, prototyping or evaluating course assets. Similarly, increased consideration on identifying and selecting the best tool, within the classic design project triple constraints of time, cost, and scope, would also be beneficial.

Evaluation

The asynchronous online model employed for this programme effectively balances flexibility with structure, allowing ākonga to work at a pace that enhances their learning and success while developing important work-related skills and capabilities. The scaffolded progression of the programme leads to strong course pass rates, and the clear sequencing of assignments and critical reflection opportunities ensure ākonga build the confidence needed to meet course and graduate outcomes. Overall, the blended approach has contributed to a more coherent and authentic learning experience that supports both learner engagement and the development of professional capability. Although there were some initial teething issues that impacted on ākonga satisfaction in the first two years, work to improve courses has been ongoing. In the 2024 Student Satisfaction Survey, ākonga reported a 91% overall satisfaction with the programme, increasing to 100% satisfaction in the 2025 survey.

Ākonga and kaiako feedback demonstrates that ākonga develop greater understanding and capability in dealing with a diverse range of workplace challenges as they progress through the courses. The blended learning model also holds ākonga accountable for professional standards, and the authentic collaboration during the programme strengthens applied learning in the workplace while maintaining academic, cultural, and inclusive rigour.

While the review and restructuring of tertiary education in the ITP sector has led to some uncertainty and funding issues that impacted development on this programme, it is anticipated that this programme will be refined through 2026 for delivery in 2027. This timeframe will enable deeper consideration of the rapid evolution of GenAI and its positioning within the learning design landscape, to enable creation a more adaptable and future-focussed programme.

There is a lack of defined professional standards for learning designers in Aotearoa New Zealand, however there is an educational pathway from the NZCLD L6 to the Postgraduate Certificate in Learning Design (Level 8) (PGCLD L8) offered by Otago Polytechnic, also described in this volume. The PGCLD L8 takes the essential analytical, design, and teamwork skills foundational to the NZCLD L6 into advanced practice, where learners demonstrate critical judgement, adaptability, and leadership in more complex learning design projects. A focus of the planned NZCLD L6 review will be strengthening this progression to support higher levels of ākonga success and learning design practice across Aotearoa New Zealand and beyond.

To conclude, while GenAI is showing a progressive ability to generate a variety of learning design content, foundational knowledge of adult learning, constructive alignment, and the skills for critically evaluating AI outputs will continue to inform and underpin the NZCLD L6. Its blended learning model which integrates multiple dimensions of learning and combines workplace learning alongside theory, will continue to be vital for producing industry competent, adaptable practitioners who are effective collaborators and communicators, and equipped with the digital fluency and design thinking skills required of learning designers today.

Editor's notes:

Any programme designed by learning designers is going to reflect careful consideration of the ākonga journey and a deliberate focus on applying education theory. We have here a thoughtful model made for part-time, situated ākonga, studying an area that is dynamic and highly contextualised to practice. The focus on transferable professional skills that are solutions independent, and on the inevitability of GenAI and AGI, are commendable. The asynchronous online model is an appropriate means for ākonga engagement toward professional practice.

However, we see the limitations of institutional context; in this instance, constraints relating to funding, time, and general resourcing resulted in individual courses being created by different developers, leading to a disjointed programme design and learner experience. A further limitation, related to semesterisation and part-time engagement, is unpopular with a small group of ākonga, but that evaluations indicate high levels of satisfaction evidences the effectiveness of the model overall. In the model, kaiako have a broad role that includes subject expert; learning coach; assessor; and advocate. The use of group engagement, collaboration, peer mentoring, and facilitative teaching help make this model scalable.

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Author profile

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Sue Deuchar is an experienced educator, learning designer, and researcher with more than 25 years of experience across the tertiary, corporate, industry training, and private training sectors. She holds a Master of Education (eLearning), a Master of Educational Administration and Leadership, and a Master of Emergency Management. Sue is currently a course developer and

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CASE STUDY MACRO.6

Southern Institute of Technology: Master of Applied Health Science

Jerrylynn Manuel | William Payne

“The blended model was implemented at a ‘time of survival,’ assisting the viability of the programme during the pandemic. The model was successful in increasing enrolments and broadening the diversity of the ākonga population... Under HyFlex domestic enrolments have increased still further...”

Context

As of 2025, the Master of Applied Health Sciences (Wellness and Rehabilitation) (Level 9), referred to from here on as the MAHS programme, has been on offer for eight years through the Southern Institute of Technology’s (SIT’s) Department of Sport and Exercise. The programme consists of eight papers in total: six papers at Level 8 and two at Level 9. There are two pathways, through either a Research Project or a Research Thesis. Ākonga may start or exit the programme with a Postgraduate Certificate or a Postgraduate Diploma after completion of two or four Level 8 papers, respectively. The intention of the programme is to strengthen ākonga expertise in their health-related fields, including Nursing; however, for those whose undergraduate degree is not within the Health Sciences, the programme has been successful in transitioning into more specific areas within the health domain such as wellness coaching. In 2025, the cohort consisted of an even mix of international and domestic ākonga, both groups having grown in number each year.

Historically, this MAHS was offered through face-to-face means in a traditional manner. Although ākonga were able to access course resources through the organisation’s Blackboard learning management system (LMS), much of the teaching and learning across both theory and practice occurred live and in-person. It was not until 2019 that Blackboard was used to stream online theory lessons during SIT’s foray into blended delivery. Now, with the programme being offered in a hybrid-flexible (HyFlex) format, Blackboard content has been expanded and redesigned to support a greater volume of

asynchronous learning. So, the MAHS went from traditional, to blended, to HyFlex models from eight, to six, to two years ago from when this chapter was first drafted in 2025.

The transition to blended delivery occurred in response to the need to reach a wider domestic audience to increase enrolments and create a more diverse ākongā population. It was found that Bachelor of Sports Sciences graduates tended to pursue employment rather than further study, and so it was thought that blended delivery would better capture those graduates wanting further study options. Further, prior to 2019, very few domestic ākongā enrolled in the programme; there were only two in 2018. The design of the blended model was such that online theory classes were offered in the evenings based on the preferred schedules of working ākongā via Blackboard Collaborate, the LMS's video-conferencing application, with practical lessons such as rehabilitation clinics reserved for on-site sessions. This is a similar system to the enriched virtual blended model, described by Christensen et al. (2013). Across 2019 and 2020, blended delivery permitted domestic ākongā to continue learning despite pandemic restrictions and ensured the continuation of the programme when international ākongā numbers dropped. The move to blended delivery helped ensure the viability of the programme by increasing the number of domestic enrolments.

HyFlex delivery was piloted at SIT in 2021 and became an official delivery method within the institution in 2022 (Manuel, 2022; Manuel & Watt, 2025). In 2022, international ākongā numbers began to grow, which prompted teaching staff to reconsider their method of delivery. The MAHS programme joined the HyFlex roll out a year later, in 2023. Since the blended programme was designed with fixed schedules in mind, such that ākongā had to be on-site or online at certain periods, it called into question whether the model was flexible enough to accommodate for life events such as when ākongā may be travelling or ill. Asynchronous learning opportunities work best for flexibility, and, with a small teaching team, an asynchronous approach was viewed a pragmatic way to cater to the different participation needs of ākongā. Kaiako would also only need to teach their materials once. The decision to adopt an asynchronous model for the post-graduate programme was also favoured because ākongā at this level tended to excel at online learning in the blended format compared to their undergraduate counterparts. Blended delivery within the MAHS programme was phased out over two years and replaced with HyFlex delivery.

The MAHS blended model sits within SIT's vision for HyFlex, which is underpinned by Beatty's (2007) four principles of flexibility, accessibility, reusability, and equivalency as shown in Figure 1. Although like the previous blended model, the MAHS teaching team recognise key points of difference to the HyFlex one. HyFlex provides more ākongā choice and a greater emphasis on asynchronous learning, which further shaped the blended model and, subsequently, course design. So, what began as a blended model

offering flexible access was further shaped to better suit ākonga and align with the institutional direction toward HyFlex.

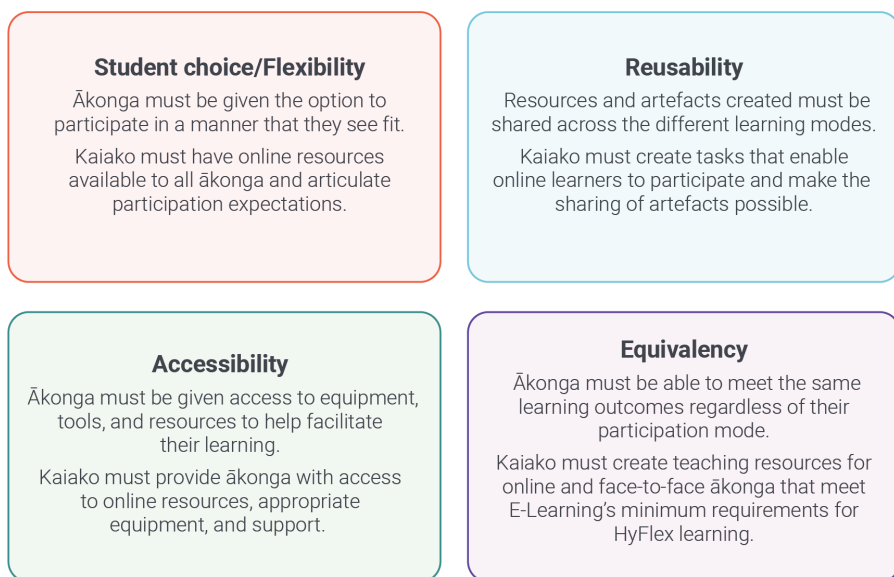


Figure 1: SIT's HyFlex Principles, based on Beatty (2007)

Description

Ākonga activity

Once fully enrolled and prior to the commencement of study, ākonga have access to both SIT's online student portal MySIT and Blackboard. MySIT is an informative site and the access point to the organisation's allied services including Student Services, Library, IT Help Desk, and the digital learning tools Blackboard, OneDrive, Microsoft Teams, and the Office 365 Suite. Event notices and ākonga research advertisements are also posted in this space, as are course lists and timetables, fees, print credits, and past results. LMS access includes the Blackboard Help and SIT Career Hub courses alongside those they have enrolled in, which are available on the course start date.

In the blended model, lessons were provided both online and on-site at scheduled times. Learning resources including course handbooks and PowerPoint slides were made available in Blackboard, and online classes were both streamed and recorded. Blackboard content was organised according to topics rather than by weeks, and folders were used to separate each topic with each resource listed as its own distinct file. A narrative termed a 'worksheet' created by the teaching team was provided for each topic, outlining the learning outcomes and providing step-by-step instructions on how

to engage with the study resources. Study questions and links to additional resources, such as podcasts, were also included in the same document. The expectation was that ākongā would submit assessments within Blackboard in the appropriate spaces.

Several changes were made when the programme joined the HyFlex roll out. First, the decision was made to adopt Microsoft Teams instead of continuing with Blackboard Collaborate as SIT's video streaming platform. Second, lesson videos became live-session recordings or pre-made instructor-voiced recordings. Third, worksheets were revised to reduce ākongā cognitive load involving improved resource navigation and enhanced kaiako presence. As a result, all learning materials were included within what was previously the worksheet document and instructional text became more detailed. Less information needed to be provided to ākongā in the blended model, since tutors were available in real time. HyFlex demanded more be given in the learning resources.

Retained from the blended delivery structure in the new HyFlex model are the scheduled on-site (day) and online (evening) sessions. *Domestic* HyFlex students have the option of attending on-site sessions in-person, either synchronously, or asynchronously, and online sessions either synchronously or asynchronously. Due to visa restrictions, *international* ākongā are not provided the same level of flexibility as their domestic counterparts. They are required to attend on-site and online sessions in-person, and in real-time. So, international ākongā are still bound to the blended delivery model.

The movement away from traditional classroom teaching to a more digitally enhanced experience offered ākongā greater access to their kaiako. Out-of-class time communication was mainly facilitated through email, especially during the blended period. In HyFlex, ākongā are now encouraged to use the chat function of Teams. Managing questions and comments from synchronous students across both blended and HyFlex models has proven tricky. Etiquette needed to be explicit. Often, a portion of the class time is reserved for engaging with synchronous learners either one-on-one or collectively. In peer-to-peer communication during live sessions the expectation is that, regardless of their asynchronous or synchronous participation mode, ākongā are to engage in class discussions. Kaiako are mindful that greater effort is needed for asynchronous communication, which takes place in the Blackboard discussion board. Course design for asynchronous communication remains a work in progress.

Kaiako activity

The small team of MAHS kaiako wear several hats when orchestrating ākongā learning experiences. Kaiako are the point of contact for study-related issues for the courses they manage and also offer pastoral support to those enrolled in their courses. Subsequently, they are also responsible for directing ākongā to appropriate SIT services, such as Learning Assistance and the Library. To help coordinate learning, kaiako provide weekly instructions as announcements in Blackboard to ensure ākongā are kept

up to date with what their upcoming classes will cover, what they must do to prepare for class, and what their in-person or online arrangement will be.

Kaiako generally develop all course materials and assessments, manage the communication flow within their courses including through worksheets, provide opportunities for feedback, monitor ākonga engagement on the various platforms including Blackboard and Teams, and grade assessments. Additionally, for HyFlex delivery, kaiako are expected to schedule their classes in Teams such that an invite and online calendar entry is sent to all ākonga enrolled in the course. Some kaiako may be responsible for organising outside classes, for example with guest speakers, and in-class events that might include Learning Assistance supplying APA referencing support. For practical sessions, arrangements must be made to ensure off-site ākonga also have an option to participate; as an example, resources may need to be provided for ākonga to facilitate a body-weight training session in a park. Kaiako might also be called upon to support colleagues in developing digital skills and pedagogical knowledge to facilitate the previous blended, and now HyFlex, lessons. This may be through mentoring or enlisting the help of the SIT eLearning team for HyFlex professional development.

As in other programmes within SIT, the MAHS Programme Manager is also a MAHS kaiako. The Programme Manager is responsible for both the management of kaiako and ākonga expectations under HyFlex, an important role because HyFlex is still a relatively new system and there are slight variations in how it is employed across different departments. The initial communication with prospective ākonga via email or phone prior to the programme commencing is an opportunity for discussions around the skills and requirements for online study, and whether that approach best suits their present circumstances. The contact also clarifies the need for on-site attendance, if any. The Programme Manager is also responsible for promoting the organisation vision for HyFlex delivery to kaiako, aligning with departmental values and ensuring that the vision is apparent across the various courses using the HyFlex model (Manuel & Watt, 2025). In the MAHS, this specifically applies to the development of course materials and how they are used by ākonga studying asynchronously. The Programme Manager must also ensure the departmental vision is accurately communicated on all public-facing materials, including the SIT website. Although these responsibilities were also in place under the blended model, HyFlex delivery demands greater clarity around ākonga choice and engagement.

Resources

Computer requirements are communicated to ākonga early in the pre-enrolment process. In addition to discussions with the programme manager, information about HyFlex study can be found on the SIT website. Ākonga choosing to study offsite must have access to a suitable computer with a webcam, microphone, and speakers; a reliable internet connection; and a space conducive for learning. During the pandemic the SIT Library, in collaboration with the SIT Information Technology Services, developed a

laptop loan service where devices were shipped to ākongā upon request. This service is still operational, but is now managed by the SIT's Digital Team (formerly Information Technology). Once frequently utilised by HyFlex ākongā, it is now reserved for ākongā experiencing financial hardship.

Generally, the first day of course is reserved for an orientation in which kaiako demonstrate how the learning tools operate. For the MAHS programme, this orientation includes basic navigation of MySIT, Outlook, Blackboard, and the relevant streaming platform (either Blackboard Collaborate for the blended model or Microsoft Teams for HyFlex delivery). Videos within Blackboard provide a tour of online course and assessment expectations. Several years of employing this onboarding system have shown the importance of these videos, as ākongā require greater digital skills than is usual to successfully operate within blended and HyFlex formats. Work is currently underway to further improve the pre-onboarding process by making the same orientation class information available to all enrolled ākongā, and to provide step-by-step instructions on how to navigate the various learning platforms.

All digital resources are housed in Blackboard and are released based on the schedule published in the course handbook. Some topics take one week to cover, whilst others take longer. As mentioned previously, digital resources include PowerPoint slides and links to the various podcasts, readings, and YouTube videos embedded in topic worksheets. Lesson videos in the form of class recordings or short, pre-made videos are provided in Microsoft Teams and Blackboard in the case of the latter, so as to give ākongā studying asynchronously awareness of the events that took place in the class. Pre-made videos are prepared using Kaltura, or else are Teams recordings. In some cases, the Teams recording is embedded in Blackboard to ensure that all materials can be found in one online location, preferable in that ākongā do not need to navigate the Teams environment to find things. The objective is to supply ākongā with enough information to navigate resources on their own, with minimal assistance from kaiako. The value of recorded resources to those who had attended class is that they can be used for review. Learning assets generated in class during in-person activities are often reserved only for the live experience, even though they are captured in the class recordings. This means that asynchronous ākongā may be omitted from the engagement. Work is being done to better connect all learners within a single activity.

In addition to the resources provided by kaiako, ākongā have access to the same suite of applications their kaiako have access to. The more relevant ones for the MAHS programme include OneDrive, Word, and PowerPoint through an Office 365 portal. Ākongā have one Terabyte of cloud storage in OneDrive. For certain assessments, ākongā can use the recording feature of Teams and submit the file in Blackboard for grading.

Timetable

The MAHS programme operates on a two-semester model, with each semester 17 weeks long. For full-time ākonga, this means an 18-month programme; for those part-time, a cap of six years to completion is applied. Ākonga may enter the programme at the start of any semester. All papers consist of a certain number of in-person and online classes, as originally designed under the blended model. As mentioned previously, this structure has been retained in the HyFlex model however now domestic ākonga have the choice of how they want to attend. According to the programme's course guides, the number of hours per course is distributed across kaiako contact, that is, the timetabled class hours published in each course guide, and independent study hours. The expectation is that ākonga engage with their assessments in independent study hours. In a 300-hour course of 30 credits, for instance, 56 hours are reserved for online and on-site timetabled lessons while 244 hours are for self-study.

Ākonga are given access to their Blackboard courses on the start date. As mentioned above, Blackboard content is organised by topics which are typically covered within 1-2 weeks and is made visible to ākonga according to the course schedule or when released by the kaiako. Assessment due dates are fixed, and ākonga are expected to submit their work according to those dates. So, despite the flexibility that HyFlex offers, the course is very much kaiako controlled and aligned with centrally determined study progress.

Assessment

Assessments and rubrics are created by kaiako and revised each year. In development of assessments, kaiako require a firm understanding of the learning outcomes and instructional design knowledge to ensure that tasks align with outcomes and are industry relevant. Generally, there are two assessments per course.

Once assessment is drafted, and prior to deployment, inter-departmental moderation is conducted by an academic team in the same faculty. A final pre-moderation report with suggested revisions is then provided to the kaiako who drafted the assessment, with the expectation that at least some recommendations are actioned. Post-moderation is also conducted internally and externally; three samples representing a high, middle, and low grade are provided to the moderator to assess the fairness of the marking prior to the results being released to learners. All assessment information and rubrics are provided to post-moderators along with the course handbooks available to ākonga through the relevant Blackboard site.

Under the blended model, all assessments were conducted during on-site periods. The issue now faced by staff under the HyFlex model is how to manage the provision of equivalent assessment experiences. Although most assessments require written responses submitted through Blackboard, presentations have been problematic. For those studying synchronously, live, online presentations are possibly an easier

experience for ākonga than is presenting in-person; remote students may not have the same performance pressures as their on-site peers, and it is possible for remote students to read from a script or notes. Ākonga studying asynchronously are also expected to present live, online, but without a large audience. These differences call into question the fairness of marking to ensure that ākonga are not disadvantaged because of their choice to attend on-site.

Skill-based assessments have also been challenging to implement, which explains why so few of these are used in HyFlex delivery. If ākonga are required to perform a task, evidence of achievement needs to be recorded. This evidence is not easy to gather for those studying asynchronously. The transition to HyFlex teaching was also accompanied by a shift to online tests from paper based. The programme has a small, five percent, timed open-book test. A certain degree of trust is required for those sitting this test online, as proctoring tools are not used.

Support for formative assessments had to shift with the move from blended to HyFlex delivery. Since ākonga were required to be on-site under the blended model, hands-on tasks were easier to facilitate. In HyFlex, more online information is required to support ākonga in conducting these tasks on their own. Synchronous participation is easier to manage than is asynchronous engagement, as kaiako are at least able to communicate with ākonga in real time. There are also questions around safety for those task-based activities performed off-site, especially when ākonga are working with clients. As an example, on-site training is preferred when dealing with clients who have medical conditions, such as heart conditions, unless ākonga have sufficient skill to manage these directly. These issues mean conversations with kaiako are required to determine whether off-site tasks are appropriate for certain ākonga. Asynchronous ākonga are given the choice to record themselves completing formative assessments; should they choose not to, they miss out on valuable feedback from their kaiako.

Institutional ākonga success services

SIT offers several areas of wrap-around support for ākonga across departments including Library, Student Services, and IT Help Desk. These services can be accessed via MySIT. During and prior to the period of the blended learning model, the SIT Library was heavily utilised by ākonga, who reported particular appreciation for APA referencing and EndNote assistance, and the helpfulness of having resources including journal articles posted via mail. The distribution of laptops also began via the SIT Library during the pandemic. The Library also provides online guides for ākonga on topics such as study skills and assessment writing.

Ākonga can access a wide range of professionals through Student Services including counsellors, health nurses, an accessibility advisor, an employment officer, Māori and Pasifika liaisons, and learning assistance personnel. Some of these services were reduced in response to Covid-19 restrictions, whilst others moved online. Since the pandemic,

connection to support pathways have been strengthened, especially during the HyFlex rollout. Learning Assistance kaimahi have been instrumental in providing embedded writing, research, and assessment support through in-class workshops facilitated at the start of the programme. On-campus, one-on-one assistance is also available. Ākonga were at one stage encouraged to use Studiosity, an online study support service; however, this is no longer subscribed to. Kaiako have since taken on the service that Studiosity would have provided through academic writing workshops within their courses.

The MAHS programme is one of several working in collaboration with the SIT eLearning team in designing student journey modules, with the aim of making the hidden curriculum of vocational learning more visible and explicit. These modules include departmental expectations around HyFlex learning, academic writing, and general study skills and are embedded directly into programme-level and individual Blackboard courses. The aim is to eventually create a space within Blackboard's Institution Page to increase their availability to ākonga.

Constraints

Both flexible modes, blended and HyFlex, have their issues. While blended delivery is less rigid than the previous study experience, the lack of flexibility in lesson scheduling was restrictive and limited who could attend the programme. Ākonga with work responsibilities found this particularly problematic even though the model was an attempt to accommodate their needs. However, one advantage that Blackboard was the only learning platform, so there were fewer ākonga concerns related to the navigation of digital tools. By contrast, HyFlex requires ākonga proficiency in the use of both Blackboard and Teams. Availability of kaiako, and their willingness to work evenings, are issues across both modes. Evening classes make for long workdays, so the distribution of blended and HyFlex classes across the teaching team needs to mitigate against kaiako burn out. Kaiako must be skilled in managing forms of engagement concurrently: on-site, synchronous, and asynchronous, and ensure that ākonga are participating appropriately.

The greater control afforded to ākonga in the HyFlex model requires an increase in the commitment from kaiako. Some kaiako report issues with managing asynchronous ākonga whose engagement is lack-lustre; kaiako term these individuals 'ghost students,' as traces of their existence is only seen when assessments are submitted. The lack of participation by online ākonga makes it difficult for kaiako to track progress, and kaiako intervention was often too late. Kaiako surmise that poor engagement might be due to ākonga feeling embarrassment when seeking help, a lack of digital skills, and life circumstances that in some cases includes long-term illness.

A further constraint to the HyFlex model is the need for kaiako to provide more personalised support, which takes more time than the blended one. A growing population of international ākonga, whose preference is one-on-one interactions, and asynchronous learners who are out-of-sync in study progress, all require individualised approaches. It is recognised across SIT that this level of support may not be feasible with larger classes sizes and in courses with more than two assessments.

Additionally, development for HyFlex and its facilitation is labour-intensive. Although 60 abatement hours are provided to kaiako for the development of each new 15 credit HyFlex paper, kaiako constantly re-evaluate and redesign their resources with each intake. The so-called 'one-and-done' approach does not apply. HyFlex also requires kaiako have high levels of technological skill, since specialised classroom equipment is used including the Logitech Rally Bar system; kaiako must be confident in using and troubleshooting should the technology fail and the IT Help Desk not be immediately available.

Finally, kaiako must perform more administrative tasks not previously needed. As an example, kaiako must log and report any hours used for materials development, now requested by senior management.

Evaluation

The blended model was implemented at a time of survival, assisting the viability of the programme during the pandemic. The model was successful in increasing enrolments and broadening the diversity of the ākonga population, both of which were the reasons for moving to the blended format; domestic enrolments increased from two to between 30 and 40 ākonga within its first iteration. Under HyFlex domestic enrolments have increased still further, but to a smaller extent with a total of 50 local ākonga enrolled in 2025. Most of these ākonga have been encouraged to take the part-time route, as many of them are working; this arrangement of part-time study gives ākonga with other commitments a much better option for successful completion. Overall, the department has at least 70 students enrolled each semester. New challenges have arisen with the blending of domestic and international ākonga, both because of their varying experiences and the need for support that caters to such a broad group.

Through course evaluation surveys and anecdotal accounts, both domestic and international ākonga report satisfaction with their blended and HyFlex MAHS experiences. High pass rates for the programme have continued across the transition through different models, likely because more academically capable ākonga are enrolling, and the provisions of the part-time option for those who need it. The flexibility of HyFlex has also improved the retention rate of the programme, as more Bachelor of Sports Science graduates now continue onto the MAHS programme. The

MAHS has also helped ākonga gain employment in the health industry and provides a strong transition for those whose background is not within the health sciences, including those in Māori health.

Overall, the greatest success with the movement to HyFlex is in the increase in enrolments and the assurance that the programme remains viable.

Editor's notes:

Providing ākonga choice takes effort. In this case study we can see how a successful, programme-wide blended model was later caught up in an institution-wide adoption of a HyFlex model and, rather than replace one with the other, both have continued side-by-side. It is clear from the case study that the burden of this flexibility has fallen upon kaiako, who must wear several hats in a dedicated commitment to ākonga success.

One significant element of the model here is the lesser flexibility afforded international ākonga, who are able to participate in the blended model but not the HyFlex one; international ākonga are required to attend classes. We can see how regulations can limit the possibilities of blended models, a real tension in this case.

There does not seem to be a plan to consolidate the initial blended and later HyFlex models, as both seem to suit different audiences; both synchronous and asynchronous, full-time and part-time options are catered for, across both domestic and international ākonga. Ensuring equity of experience and assessment across these options looks to be a tremendous challenge, particularly with 'ghost students.' The model options present us with dedicated kaiako, ākonga-centric pedagogies, and an ecosystem of online tools brought together, requiring kaiako to take on a range of responsibilities and expertise across technology, learning design, and ākonga support.

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Author profiles

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Dr. Will Payne has been with the Southern Institute of Technology for 20 years. He works as both a tutor and programme manager with the School of Sport and Exercise. Will credits his '20 years of learning' to his ability to pivot and seize opportunities. Will holds both Doctor of Philosophy and Master of Science degrees in the field of Human Nutrition. Will recently achieved the professional milestone of being awarded his PhD, contributing to the field of children's nutrition, health and social sciences. He has been able to apply his learning to his tutoring and programme manager work in the Postgraduate level Applied Health Science programmes. As a physical conditioner for 16 years, he has also trained world champions, Olympic medallists, and paralympic gold medallists.

Case studies:

THE MESO LEVEL

CASE STUDY MESO.1

Ara Institute of Technology: New Zealand Certificate in Adult Tertiary Teaching (Level 5)

Niki Hannan | Faye Wilson-Hill

“Kaiako intentionally model best practice. Blended delivery enables ākonga to experience this practice in both face-to-face and online modes. Teacher education principles remain consistent in both approaches...”

Context

Ara Institute of Canterbury (Ara) has a long-standing history of offering on-the-job tertiary teaching qualifications modelling the use of technology. Various Certificates in Adult Teaching (CAT) qualifications have been offered since 1995. The New Zealand Certificate in Adult and Tertiary Teaching (Level 5) (NZCATT L5) is the latest, approved for delivery in 2017. NZCATT L5 is a part-time, 60 credit teaching qualification made up of four courses, suitable for practising tertiary teachers, or kaiako, teaching at any level in the New Zealand vocational education sector. Most programme participants are teaching at Ara and complete the courses over a two-to-three-year period. Uniquely in this book, then, ākonga are kaiako themselves in their own context. Care will be taken to ensure equivalency across case studies by applying the same terms in the same way, thus *kaiako* will refer to those teaching on the NZCATT L5 programme, and *ākonga* to those enrolled in the NZCATT L5 programme. Those taught by the ākonga as part of their kaiako role will be referred to as the ākonga of those enrolled in the NZCATT L5 programme.

The application of theory and practice for vocational and work-based education is integrated throughout the NZCATT L5 programme's design, supporting ākonga to develop competence and confidence in blended design, delivery and assessment. Ākonga participating in the programme come from diverse backgrounds and teaching

contexts. They are experts in their fields, however, are mostly new to the pedagogies and technologies of teaching and learning.

The kaiako team designed and teach the various NZCATT L5 courses with a commitment to modelling best practice in curriculum development and the use of educational technology. The team are early adopters of various blended learning practices as supported by the various technologies available to them at any time. As an example, during the Covid-19 pandemic during 2020 to 2022 there was a swift transition to delivering NZCATT L5 fully online. Despite its pace, the transition was a smooth one in part because OneNote Class Notebook had been a core part of the blended design since 2018. Ara also made Zoom available as a Covid-19 response, so online meetings, recording and breakout rooms were universally available across the institution. Post Covid-19, ākonga feedback was for a return to a face-to-face delivery. However, to mitigate the logistical challenges of timetabling required learning hours for fully face-to-face delivery of an in-service qualification, and to take ongoing advantage of the technology available, there was a move to the current blended learning model.

The blended learning model used in NZCATT L5 is illustrated in Figure 1. The model has remained consistent since 2012; changes in technology have served to strengthen, rather than redefine, the approach.

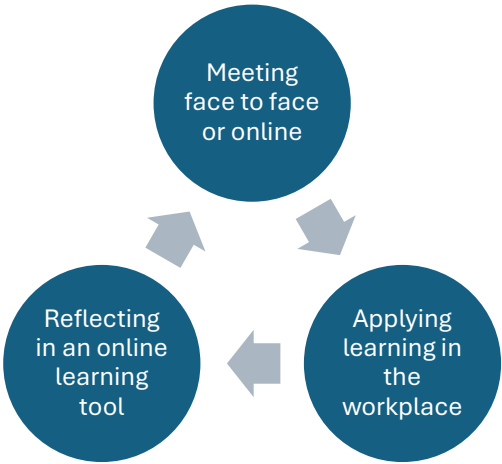


Figure 1: Blended learning model for NZCATT L5 at Ara

The diagram represents the fortnightly cycle of learning for each course, starting with a synchronous session either face-to-face or joining online for in-person and remote groups. One of the core purposes of these sessions is to establish a trusting learning

environment where ākonga can collaborate, explore and share experiences of what they are interested to apply in their teaching, for example interactive learning strategies.

After the synchronous session ākonga apply different teaching and learning approaches, including using available forms of technology in their workplace, in their own practice. The cycle for the blended learning cycle in Figure 1 is completed by NZCATT L5 ākonga uploading their session planning, resources, and reflections on the learning of their own ākonga to an online platform. The cycle then begins again.

A range of education platforms are deliberately used in the programme, including Moodle, OneNote Class Notebook, and Microsoft Teams. This variety provides NZCATT L5 ākonga with the experience of using the platforms to complete their learning and assessment. Consequently, the participants are more confident to navigate and design online environments for their own ākonga in their workplaces.

Kaiako intentionally model best practice. Blended delivery enables ākonga to experience this practice in both face-to-face and online modes. Teacher education principles remain consistent in both approaches, and ākonga consider how they might develop and respond to emergent technologies in their own practice through activity and reflection.

Description

Ākonga activity

Throughout the NZCATT L5 courses ākonga experience evidence-based principles of ako in action. Ako encapsulates the relationship between kaiako and ākonga, and the reciprocal nature of teaching and learning (Rātama, et al., 2022). The design of the programme ensures that the ākonga experience and reflection on being a learner takes place in parallel with them acting and reflecting on being a kaiako. For example, NZCATT L5 ākonga have a diverse range of ākonga in their practice who they need to get to know. In face-to-face sessions they experience a range of interactive activities across the programme for getting to know one another and their kaiako by enacting whakawhanaungatanga²⁵ (Rātama, et al., 2022). Together ākonga explore the diversity amongst their peers who may, for example, express neurodiversity, different cultural perspectives, unique past learning experiences, and deeply personal motivations for teaching. Ākonga are asked to trial similar activities in their own work context and reflect on how they contribute to developing a trusting learning environment.

Being new to technology adds to the complexity of being new to teaching. Early in each course, ākonga experience an introduction to an online learning platform. This involves

²⁵ Process of establishing relationships, relating well to others.

ensuring all have access, confidence in navigating the tools, and the experience of completing some online tasks. Ākonga experience the importance of early success and confidence-building activities with new technology, supported by their peers and kaiako. Any previous experience with technology is explored, to draw focus to the skills they can build on. A range of technology supporting teaching and learning is considered throughout the programme, along with coverage of the benefits and challenges technology brings to the learning process in ākonga-specific contexts. These learning experiences enable NZCATT L5 ākonga to more effectively support their own ākonga in turn, within the blended framework of their own situation.

The NZCATT L5 blended learning model gives ākonga the opportunity to experience various forms of giving and receiving feedback in each aspect of the cycle. Face-to-face sessions allow for verbal and written feedback, modelled by kaiako and practised between ākonga informally in group discussions and activities. This feedback is reinforced formally when the NZCATT L5 ākonga teach their own ākonga. This also works in reverse, as NZCATT L5 ākonga receive verbal and written feedback from kaiako after being observed in their workplace. For most ākonga, this is the first time they have received feedback on their teaching. These observations, at least three in number, are designed to be strength-based. For example, in the debrief, ākonga are asked how the teaching session went from their perspective. The observing kaiako build on their comments, linking them to aspects of teaching practice that they noticed and how they saw this impacting on the learning process. Comments are also given on what can be further developed and other aspects to consider. Ākonga often comment on how these experiences validate their practice and build confidence, and the importance of the feedback to their own development as developing kaiako. The online aspect of the cycle also allows for written feedback to be given promptly on Moodle forum submissions in some courses, and shared OneNote pages in others, related to ākonga's own reflection on teaching practice. Two courses use Moodle, and two others OneNote, to provide exposure to the tools mostly used at Ara. Online formative feedback is given at multiple points in each course, contributing to the growing sense of capability for each ākonga.

Face-to-face sessions also allow for deep exploration of te Tiriti o Waitangi²⁶ and its relationship to teaching and learning. Ākonga experience a bicultural approach in their tuition, with both tangata whenua²⁷ and tangata Tiriti²⁸ facilitating. This design is intentional. A two-day workshop takes place in the first course halfway through, with another at the start of the second course, so that ākonga get to know each other well,

²⁶ The Treaty of Waitangi, a founding agreement between the British Crown and indigenous Māori in New Zealand.

²⁷ Local people, hosts, indigenous people - people born of the whenua, i.e. of the placenta and of the land where the people's ancestors have lived and where their placenta are buried.

²⁸ 'People of the Treaty,' inhabitants of New Zealand who are not tangata whenua (see also Tiriti o Waitangi).

building trust. Ākonga practise Te Reo Māori throughout each course, and Māori models for learning are integrated into the blended learning cycle. Workshops are interactive. As an example, ākonga work together to read and respond to texts about te Tiriti o Waitangi, and the ensuing policies and laws of the colonising government. Ākonga feedback typically mentions the profound effect of hearing personal stories from tangata whenua, and comments on the importance of face-to-face as a critical part of an effective inclusive education process becomes clear.

Ākonga activity

Teacher education has an important role in support of the Ara strategy seeking to leverage technology to enhance teaching practice. NZCATT L5 kaiako are subject matter experts, course designers of all aspects of the blended learning cycle, and the facilitators and assessors of NZCATT. These responsibilities require an advanced level of pedagogical skill. As an example, kaiako need to be adept in designing interactive sessions and managing various technologies at once, so that synchronous sessions for both face-to-face and online learning experiences flow and are meaningful for all ākonga. Instructions and resources for each activity need to be available for both face-to-face and online modes, and kaiako need to have excellent facilitation skills and be technologically capable. Giving ākonga the choice of how to attend sessions is hybrid-flexible, or HyFlex, according to Beatty (2019).

Kaiako must remain up to date in a number of areas, as they also teach in other disciplines. This enables them to be aware of the needs of their ākonga, who are also active in their own classrooms. Kaiako all have Masters' degrees, and so are participating in research and publishing in relation to teaching and learning. This means that kaiako are themselves constantly learning and reflecting on the learning process. There is an ongoing necessity for kaiako to be informed about changes in technology, and to consider how these might affect curriculum design. The advent of generative artificial intelligence (GenAI) provides an interesting example of how kaiako and NZCATT L5 ākonga need to be adaptable and responsive to contemporary challenges. The impact on education of GenAI is becoming all-encompassing, and the rate of change is happening exponentially. This provides an opportunity for kaiako to show NZCATT L5 ākonga they do not need to be experts in all technologies. Instead, they need to work with their own ākonga in a curious, creative manner. Modelling means being comfortable with uncertainty while on the cusp of a new paradigm (Chan, 2025). Across the NZCATT L5 programme kaiako and ākonga are co-creating learning opportunities as they jointly explore the issues of GenAI, discerning the opportunities, discussing what is happening in the workplace, and considering how to enable learners to see GenAI as a tool rather than a takeover. Gen AI can be modelled as a tool for preparing activities, resources, content, and session plans.

Kaiako need to develop a broad knowledge of disciplines in the tertiary sector. Within a group of new ākonga the subjects taught can range from radiography to carpentry, and

from degree to certificate level. The role of kaiako, then, is to concentrate on the *how* of teaching and learning. They model ways of facilitating a diverse group while demonstrating educational principles that ensure ākonga success, rather than focussing on what each participant needs to teach. To be effective, the teaching process needs to incorporate a range of examples from various areas. These have been gathered through the many observations kaiako have undertaken across the tertiary sector.

Resources

The NZCATT L5 programme is largely experiential in design, therefore it is not content or resource heavy. Various supporting materials made up of up-to-date readings, resources and links are provided in online platforms. Resources include lesson plan templates, examples of learning activities, and observation forms. Session recordings are available for those who may have missed a class. Most online material contains sequences of activities related to developing lesson plans, teaching strategies, resources, assessments, implementation and reflection. The content and resources are drawn from evidence-based practices and teaching and learning principles that have been tried and tested by kaiako across many contexts.

Ara has a 'high' rating from the New Zealand Qualifications Authority (NZQA) for its robust quality systems, including academic policies and procedures. NZCATT L5 kaiako are active elements of the Ara internal teaching and learning network, focussed on building kaiako capability across the polytechnic. Guidance and expertise are provided across Ara for ongoing guidance related to resource and learning materials development, most recently addressing assessment processes and the use of GenAI. Materials outlining processes and approaches for mātauranga Māori and Pasifika teaching has been co-designed over the years with Māori and Pasifika experts, who also recommend key resources such as the Pasifika Kato toolkit (Chu-Fuluifaga & Ikiua-Pasi, 2021).

Technological assistance for teaching and learning continues to be essential. New material is often developed in a team-teaching situation with a specialist, for example the materials created in support of neurodivergent ākonga. Members of the Ara teaching and learning network have sometimes been participants in the NZCATT L5 programme as ākonga; Ara learning advisors, who do not teach their own subjects, complete the programme as professional development. This ensures reciprocal Ara wide relationships are developed, and NZCATT L5 content and resources are critiqued.

The NZCATT L5 programme serves to initiate its ākonga as new kaiako into the tertiary education community. The resources and learning materials in the programme are shaped not only to fit the participants' context, but also to align with Ara's policies and procedures. Ākonga finish the programme with well-established foundational educator capabilities, and graduates are well on their teacher development journey in developing cultural capability aligned with Ara's Māori Achievement Framework and

Pasifika strategies. Ara's internal quality standards, in the form of its Quality Management System (QMS) and evaluation processes, are socialised into reflective practice. Ākonga become skilled in the cycle of designing, implementing, and seeking feedback. Graduates of NZCATT L5 can also use their experience and reflections as part of their application for promotion, because the programme resources and teaching materials align with Ara's contractual teaching and learning competencies.

Timetable

NZCATT L5 is made up of four courses, each offered twice per year at various times across a study period of 34 weeks. Ākonga are encouraged to start with the first course, *Learner-centred practice*, then choose when to do the other three. On average the programme takes two to three years to complete; ākonga are recommended to undertake one course at a time, due to the course workload alongside the overwhelming demands of their first year themselves as kaiako. One benefit, though, is that ākonga can consolidate their learning as they apply and adapt course experiences to their own kaiako context.

Each course has synchronous sessions, mostly held every fortnight for two to three hours. There are two additional full face-to-face days for two of the courses. Each of these synchronous sessions are available to ākonga in person or online, and ākonga are free to switch between these across their study journey. Face-to-face sessions are fundamental for establishing a trusting environment (Rātama, et al., 2022). Participation in these sessions is high, suggesting that management supports their kaiako to engage in the programme as ākonga by deliberately allocating workplan time. Most of the 600 learning hours in the NZCATT L5 programme are allocated to work-integrated and self-directed learning. This includes online reflection and assessment tasks, and work-integrated hours of planning, teaching and assessing in ākonga's own diverse learning environments across classrooms, studios, workshops and online environments. The assessment due dates help determine the flow of learning hours but are also negotiable when required.

Assessment

Assessments are prepared by kaiako, who have carefully designed the curriculum to exemplify principles for effective assessment practice. The NZCATT L5 programme has several constructively aligned assessment types across each aspect of the blended learning cycle. During face-to-face sessions there are presentations, group assignments, and ākonga teaching each other. In the workplace, evidence is gathered of teaching practice; observations take place, and a teaching session is recorded on video. Online assessments consist of contributions to forums and the uploading of session planning, reflections on teaching, and further evidence of learning by the ākonga of those enrolled in the NZCATT L5 programme. As mentioned previously, there are many places for

kaiako to give formative feedback to NZCATT L5 ākonga within each course before they complete and upload summative work.

Internal and external moderation occurs on a yearly schedule, in accordance with Ara policy and procedures. Internal pre-moderation is performed for both first-time delivery and when there are changes to assessment, to ensure assessment principles of assessment are adhered to. Quality assurance records are kept that highlight issues and track kaiako practice in assessment as they relate to Ara processes. Moderators comment on the high relevance of the assessments in the NZCATT L5 programme on the grounds they are work integrated, practical and authentic.

Each assessment directly relates to ākonga teaching experience and context. NZCATT L5 course assessments are scaffolded to develop capability, and together they can be assembled to construct a portfolio of evidence for meeting the programme learning outcomes. Kaiako model the assessment processes being integrated into the learning sequence. Ākonga experience being supported in the preparation of their submissions and in presenting evidence early in the programme, which gives them the satisfaction of early success. Developing self-agency through reflection on the nature of a range of assessments is essential for ākonga, because many in turn will be designing assessment processes for their own practice which will also need to be contextualised and varied.

There is a course in NZCATT L5 that focuses on assessment design and moderation. NZCATT L5 ākonga review evaluation and moderation documentation related to the assessments they are using with their own ākonga as part of this course. Assessment principles are explored through collaborative activities and are applied as lenses to critique assessment instructions and the reliability and consistency of marking rubrics. Ākonga share their recommendations for improvement with a workplace colleague. This contextualised practice consolidates the skills needed when designing assessments for their own courses. Discussions are fostered about how GenAI can be used appropriately and legitimately, without interfering with the academic integrity of assessment. These discussions link to the variety of assessment types on the NZCATT L5 programme demonstrating how to gather authentic naturally occurring evidence.

Institutional ākonga success services

Ara has comprehensive ākonga services designed to enhance success and support wellbeing. This includes ākonga advocacy; library services; learning advisors who offer one-to-one, group, and peer support; disability services; and technical support. Ākonga in the NZCATT L5 programme have access to all institutional support services, and in parallel they also need to ensure their own ākonga access assistance when they need it.

The pastoral care shown by NZCATT L5 kaiako is important to the success of their ākonga. This care begins with personal responses to course inquiries and support through the enrolment process. Recognition of Prior Learning (RPL) requests must also

be processed, alongside course counselling for ākonga coming back into the programme. Before each course starts, ākonga are contacted personally with information about the course and a phone call. Ākonga are also connected to institutional support when needed.

Wrap-around care is modelled on Te Whare Tapa Whā (Durie, 1994), a holistic Māori wellbeing framework which is also explored in the first NZCATT L5 course. Kaiako get to know ākonga personally and professionally. When ākonga cannot make it to a synchronous session, they are contacted by kaiako and given a pathway to catch up. Each cohort forms a whānau group, where they support each other during the course by participating in collaborative learning strategies and discussions. Ākonga are on a steep learning curve, which can be stressful at times; emotional support is given by the group as they listen to each other and share the challenges they face.

Constraints

Vocational education in Aotearoa New Zealand has faced uncertainty and disruption in the last seven years, shifting to and from Te Pūkenga alongside the ever-present funding constrictions imposed in the sector. In this context there have been restrictions on hiring new kaiako; this in turn has reduced NZCATT L5 enrolments. Despite this, the programme continues to be seen as making a valuable contribution to building kaiako capability at Ara.

The blended learning model of the NZCATT L5 programme well reflects the Ara vision for developing the technological capability ākonga so they can contribute to creating flexible delivery options in their own practice. To develop this capability there must be high quality, purpose-built technology available in learning spaces with recording capacity, so ākonga can be present at synchronous sessions either face-to-face or online. This approach, consistent with the NZCATT L5 HyFlex model, means ākonga can view the sessions in their own time (Beatty, 2019).

The HyFlex nature of the NZCATT L5 model requires highly skilled and adaptable kaiako to facilitate quality learning synchronously for ākonga online and face-to-face. While this approach works well for up to twenty ākonga, it may not work well with larger groups. Ākonga, as new kaiako themselves, may particularly find both modes difficult to manage at once. For HyFlex to be successful across Ara, there must be commitment to developing technological capacity among all kaiako. Ideally, there would be a kaiako in the classroom and a technician managing the online space; however, this will add an extra cost to the delivery. It is estimated that the effectiveness of the model has a cap at around ten ākonga online and twelve in-person, assuming online ākonga are confident with the technology.

Ara has educational designers that facilitate programme development to the NZQA approval stage, and Learning Technology Advisors that support the use of technology to enhance learning. The additional activities related to the ongoing development of content, writing of assessments, creating of resources and the design of online learning platforms rely on the kaiako of each discipline. The benefit of this cascade is that subject matter experts have creative influence over their programme design, and some change can happen relatively quickly. Most of the graduates of NZCATT L5 practice across a blend of face-to-face, online, and varieties of workplace learning in their programmes. While the blended learning model of NZCATT L5 provides a fundamental experience for ākonga as they learn to become kaiako themselves, continued professional development and support to develop their expertise and technical capability for their own forms of blended learning needs to be exemplary.

Evaluation

The Ara NZCATT L5 programme has undergone two five-yearly NZQA consistency reviews. The review process demonstrated that the graduates of the programme have met the outcomes for the qualification. It is an evaluative process based on both formal and informal evidence. There is high confidence, as shown in the regular and ongoing evaluative activities, that the Ara NZCATT L5 programme demonstrates continual improvement, high-quality teaching, model learning and assessment practices, and enables graduates to create tertiary vocational learning environments that enhance learning and empower ākonga.

The consistency review process is an evidence-based, evaluative process drawing on a range of information sources. The formal sources include feedback from NZCATT L5 ākonga through online surveys of courses and the experiences of their own ākonga; feedback from programme graduates; manage and employer satisfaction surveys; focus group interviews; and external and internal moderation outcomes. Informal sources include observations of kaiako facilitating online and face-to-face; a kaiako programme action plan; anecdotal and unsolicited feedback; and regular kaiako team meetings, where ākonga progress and learning needs are discussed, and moderation issues followed up. The triangulation of evidence shows that graduates meet the graduate profile outcomes, including those related to designing learning that is pedagogically and culturally appropriate to meet specified learning outcomes in diverse contexts, using a range of facilitation and teaching strategies including technology-enhanced teaching and learning.

Other indicators of the success of the programme include qualification completion data, showing consistently high completion rates of courses; twenty graduates receiving Ara teaching Excellence Awards over the last five years; and the Ara promotion panel regularly commenting on the quality of promotions applications from those NZCATT

L5 graduates articulating the good teaching practice and improvement stories required for progression or promotion. At Ara, completion of the NZCATT L5 programme is a prerequisite for promotion.

Some of the ākongā feedback themes from participants include references to those course experiences helpful for when they have designed their own new courses; constantly reflecting on their teaching to ensure they meet learner needs; valuing Te Whare Tapa Whā as a model they can apply for their own ākongā; and sharing and engaging their colleagues in discussion about teaching and assessing practises. Key feedback theme from managers and employers includes a marked improvement in graduates' overall teaching skill and noticing an ākongā-centred focus on delivery.

One of the unique strengths of the NZCATT L5 programme is that each course uses a different learning platform. This develops a broad technological capability in ākongā. Continual improvement in technological capability requires a commitment to be up to date. As an example of this in practice, PebblePad will be the platform adopted for one course in 2026. The Hyflex nature of the programme also means the teacher educators are continually designing learning materials so that the synchronous experience online replicates the interactive experiences of those in the classroom. Recordings of key session aspects also need to be available for those who cannot attend the synchronously. These need to be constantly updated.

The evaluative evidence demonstrates that the NZCATT L5 blended learning model enables kaiako to support their ākongā, who are newly appointed to teaching positions, as they navigate the complexities and transition from being experts in their field to becoming skilful educators within their specialist disciplines. There are many strengths across each aspect of the model, drawing on the collaborative nature of learning synchronously face-to-face and online; the opportunity to explore a number of different technologies and learner platforms; and the authentic nature of contextualised work and integrated assessment. This model is recommended for other contexts.

Acknowledgement:

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²⁹ Topic, policy, matter for discussion, plan, purpose, scheme, proposal, agenda, subject, programme, theme, issue, initiative.

Editor's notes:

The blended model for the NZCATT L5 is designed to demonstrate an exemplary teaching and learning experience for its ākonga, themselves kaiako in their own right. A strength of the model is its immediate relevance to actual practice, tied in with Ara's practices. The institutional commitment to the programme is also clear, as completing it aligns with academic promotions and linking assessment with quality compliance. The institutional commitment to the programme will, no doubt, enable it to retain a strategic viability that other models in this book would not under falling enrolments. The challenges of HyFlex are hinted at in this case study; providing effective synchronous sessions for face-to-face and online attendees is a challenge, more so if class sizes go beyond around 20.

The collegiality across ākonga and immediate relevance of course experiences are key strengths of the model, the latter clearly linked to themes of technology literacy and authentic culturally centred practice. Kaiako no doubt take considerable pride in their ability to demonstrate how ākonga should themselves serve as kaiako, in a form of 'pay it forward.'

The strategic importance of the NZCATT L5 programme, its central role in teaching quality, technology literacy, and ākonga-centredness across Ara, likely plays a part in its success. Of course, ākonga are also highly motivated to become better in their own kaiako roles and certainly benefit from a dedicated team of kaiako professionals who no doubt see their role as affecting not only their own ākonga, but the ākonga who in turn benefit from their graduates.

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CASE STUDY MESO.2

Future Skills: Applied Management degrees

Varun Bhardwaj | Krish Naidu | Jason Singh | Rajeev Chawla

“Each ākonga participated in a supportive learning community, engaged in live face-to-face classroom lectures and workshops, interacted with peers..., engaged with course materials..., collaborated with kaiako and peers..., and read and responded to weekly formative feedback letters from kaiako.”

Context

Post Covid-19, blended learning is becoming an increasingly attractive model of tuition. A common definition of blended learning is ‘the thoughtful integration of classroom face-to-face learning experiences with online learning experiences’ (Garrison & Kanuka, 2004, p. 96). Blended learning approaches employ both face-to-face and online delivery strategies in the task of facilitating the process of learning (Hrastinski, 2019; Garrison & Kanuka, 2004). However, literature is largely silent on the organisational, departmental and individual level factors which collectively shape how much content is delivered online versus face-to-face and how transitions between face-to-face and online experiences are managed in practice. In addition, the literature on blended learning has only give a superficial treatment to those learning contexts such as the New Zealand Private Training Establishments (PTE) sector, where blended learning approaches face the challenge of transforming not only the knowledge and skills of ākonga but also their perspectives, evaluation criteria, and reasons for acting.

The blended learning approach presented in this chapter is the result of the first author’s experience as a kaiako in New Zealand’s PTE sector and the unique pedagogical approach developed as a Sessional Lecturer at the Future Skills Otago Polytechnic Auckland International Campus (OPAIC). The postgraduate and undergraduate programmes of Future Skills predominantly serve international ākonga. English is a second or third language for most, if not all. Online-only delivery is not an option in these circumstances, for this and other reasons. Educationally there is the risk of isolating ākonga, who are known to be navigating significant cultural transitions when they enrol in our programmes.

The Formative Blended Learning (FBL) framework serves two distinct programmes at Future Skills. One, the Bachelor of Applied Management (BAM), is a 360-credit programme delivered over three years full-time. The degree emphasises practical learning through case studies, workplace assignments, and a major research project. During their first year, ākonga complete core Level 5 courses covering business fundamentals, progressing to compulsory courses in *Improving Organisational Performance* and *Organisational Research Design* in their second and third years. All BAM ākonga complete a 300-hour (45 credit) internship in their final year, gaining hands-on experience and developing crucial industry connections. In addition to spending time on placement, ākonga are scaffolded for 150 hours of self-guided learning. The learning process is evidenced and observed through the staged delivery and review of three assessments, a research report, reflection, and presentation. No new concepts are taught during the internship, and ākonga meet regularly with kaiako for guidance. The internship is designed as the ultimate learning journey, where all the management concepts ākonga have learned are put to the test in an applied setting. Support is provided for both part-time job placement during studies, and career placement upon graduation.

The other programme, the Master of Applied Management (MAM), offers an intensive 180-credit programme over 18 months full-time, with three distinct pathway options: coursework, made up of four compulsory courses plus eight electives, including at least three Level 9 courses; professional project and coursework, consisting of four compulsory courses plus a 45 credit Level 9 Professional Project and five additional courses; or research thesis, made up of four compulsory courses plus a 120-credit Level 9 research project. This flexible structure allows international ākonga to tailor their learning journey to their career aspirations, while still maintaining the academic rigour appropriate for postgraduate study.

Each 15-credit course across both programmes is delivered over an eight-week teaching block and consists of seven face-to-face contact hours per week. A single kaiako facilitates the learning process for anywhere between one to three cohorts of 25-30 ākonga in any given block.

Summative assessments undergo a department wide process of pre-moderation and include literature reviews, recruitment and selection portfolios, and training and development plans. Ākonga create a wide array of text and audio-visual artifacts to demonstrate their learning in all their courses. However, with the rise of generative artificial intelligence (GenAI), there is growing discussion and debate among kaiako as to the validity and authenticity of summative assessment results. At Future Skills ākonga face the dual challenge of complex content mastery and language processing, and GenAI offers much needed assistance. Detection of GenAI in ākonga assessment is not reliable, and adding to the difficulty of policing GenAI is the fact that employers are asking for GenAI skills in graduates. Kaiako are realising that developing a more

sophisticated assessment approach must go hand in hand with developing a more sophisticated delivery approach. This means that kaiako can no longer rely exclusively on face-to-face delivery strategies and summative assessments. Kaiako must also explore innovative formative approaches that lift the reliability and authenticity of summative assessments.

The FBL framework was developed in the context of the BAM and MAM programmes to make a strategic contribution to the design and delivery of postgraduate and undergraduate programmes at Future Skills. The framework is illustrated in this chapter drawing from four cohorts consisting of diverse groups of adult ākonga between 2024 and 2025: *Research Methods and Enquiry* (RE) and *Managing for Sustainability* (MS) in the MAM programme, and *Human Resource Management* (HRM) and *Research Methods* (RM) in the BAM programme. These four cohorts served as observational case studies of Mezirow's (2008) theory of transformative learning and Kolb's idea of experiential learning (Kolb et al., 2014).

All four examples of the FBL framework draw on Mezirow's idea of transformative learning and Kolb's experiential learning theory. Mezirow (2008) inspires us to ask how blended learning approaches can be designed to facilitate phases of reassessment and growth, where ākonga challenge their own assumptions and chart new pathways into the future. Kolb et al.'s (2014) experiential learning process invites us to ask how blended learning approaches can be designed to enable kaiako to create and maintain safe and inclusive learning environments, environments where ākonga can guide the transformation of their own experience to create new knowledge.

Description

Ākonga activity

Each ākonga participated in a supportive learning community engaged in live face-to-face classroom lectures and workshops, interacted with peers using a social e-learning platform called Perusall, engaged with course materials using an interactive course delivery tool called Articulate Rise 360, collaborated with kaiako and peers using a virtual collaboration tool called Mural, and read and responded to weekly formative feedback letters from kaiako. Prior experience with educational technology and blended delivery helped to ensure ākonga experience was as relevant and scaffolded as possible. By design, a consistent delivery approach was maintained across both BAM and MAM cohorts. Evaluation data showed significant differences between the BAM and MAM ākonga in terms of user experience and willingness to engage with the tools. Kaiako observed that despite the added digital literacy requirements of blended formative engagement, requiring more formative assessment, the MAM cohorts had more extensive engagement with the FBL framework than the BAM cohorts.

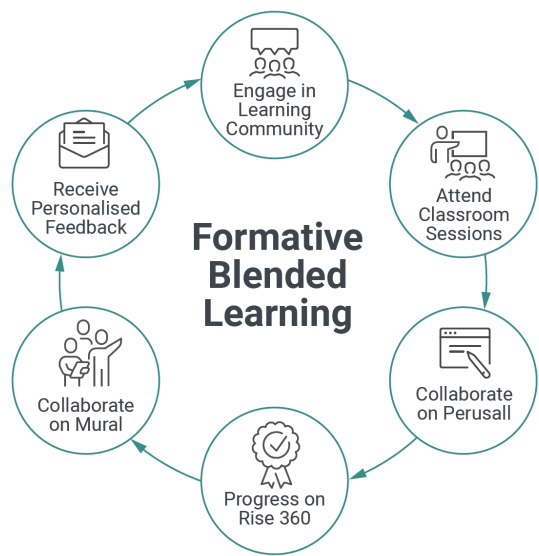


Figure 1: The Formative Blended Learning (FBL) framework

A supportive learning community at Future Skills provided the foundation for the FBL framework. The framework (Figure 1) was designed for the benefit of ākonga and the framework was continuously revised in collaboration with this wider learning community, which includes faculty members, industry partners, and pastoral care teams.

The live face-to-face classroom environment had ākonga participate in two three-and-a-half hour in-person learning sessions each week. Each session included a one-hour lecture and a two-hour workshop. In line with experiential learning principles, the lectures were designed to build on the experiences ākonga had gained from their work background or from workshops, creating opportunities for ideation and critical reflection. The workshops provided a safe and inclusive space for ākonga to experiment with their ideas and set the stage for new experiential learning cycles which build on prior knowledge. All lectures and workshops were recorded using the kaiako’s laptop or main desktop computer and were transcribed and summarised using Notta.ai. Transcripts and summaries were shared with ākonga after each session.

The online environment consisted of a social e-learning, virtual collaboration, and interactive delivery tool. These tools were not a part of the organisational SSO package which consists of Teams for communication, Moodle for course delivery and assessment feedback, library services for research database access, MS Office 365 for productivity, and Selma for attendance and final results. The tools were selected based on their pedagogical significance and their accessibility and user friendliness for both kaiako and ākonga. The accessibility of social e-learning platforms such as Perusall made it possible for ākonga to engage in peer-to-peer learning at no cost to the

organisation and without overwhelming kaiako with the administrative load of facilitating peer review processes at scale. Perusall facilitated a process of collaborative annotation, where ākonga collectively made meaning from the readings through shared struggle and insight. This social dimension created opportunities for our international ākonga to observe how their peers navigate comprehension challenges.

Perusall provided kaiako with an engagement data stream for ākonga that revealed engagement depth and tracked the evolution of critical thinking. The specific data points for each individual ākonga included comment quantity, quality, peer interaction rates, and reading completion. All data points were aggregated each week and provided as feedback to ākonga. A cumulative Perusall score was calculated for each ākonga at the end of the learning block; the Perusall data was triangulated with kaiako's observational data of ākonga's classroom behaviour, which included attendance and participation. Attendance data was accessible to ākonga in real time through the organisational SSO package. The participation data consisted of manual note entries made by kaiako included in weekly feedback letters. Attendance data was aggregated into a cumulative score for each individual ākonga but the participation data was collected for the weekly feedback process only, so went through no further analysis or aggregation.

Rise 360 was the interactive delivery tool used. Rise was chosen because it enabled ākonga to access the course materials asynchronously, within a user-friendly interface. It also allowed kaiako to quickly design and add relevant modules to scaffold ākonga's emergent learning pathways. Each course began with an innovative quest-based system that used Rise 360 to gamify the learning process. Ākonga collected 'secret keys,' digital badges that unlocked new content and signalled mastery. Knowledge-based keys were released when ākonga completed specific activity clusters, for example by watching videos, completing readings, and successfully answering scenario-based, multiple choice, and matching questions. Skill development keys were released when ākonga demonstrated a newly gained skill, for example by completing an audio-visual simulation requiring competency demonstration. The simulations were all designed using Articulate Storyline.

Mural was the virtual collaboration tool, selected because it provided ākonga with the ability to collaborate synchronously and asynchronously with their entire class and enabled kaiako to facilitate and manage the collaboration space easily. The class Mural page was designed as a community hub. Each ākonga posted a profile photo which was linked to the ākonga's own public mural page, allowing ākonga to journey alongside their peers during the learning block. Every ākonga maintained two personal pages, one formative and one summative; the formative page was their public page linked to their photo on the class page and the summative page was private, accessible only to the ākonga and the kaiako. Kaiako created two further team pages for each ākonga to participate in: an internal one for messy collaboration, and an external one for polished

presentation. The class Mural page also served as a communication hub where data streams from the face-to-face sessions, Perusall, and Rise 360 were used to provide meaningful feedback for ākongā to read, catalogue, and respond to at the start of each week.

Kaiako activity

Kaiako designed face-to-face sessions that brought diverse ākongā together into cohesive learning communities. During week one, kaiako prioritised human connection through carefully chosen exercises, such as diagnostic icebreakers for new cohorts or structured interview circles exploring course-relevant experiences for returning ākongā. Kaiako facilitated these activities to practise presence, ensuring each speaker received the attention of their peers during class-level activities. These community-building exercises served dual purposes as diagnostic opportunities, allowing kaiako to assess ākongā engagement levels and cultural comfort zones.

Kaiako also designed and maintained the digital practice environment, creating gamified learning experiences through Rise 360 that gave ākongā control over pace and repetition. Kaiako structured knowledge acquisition through strategically sequenced activity clusters, designing the ‘secret keys’ that emerge only after ākongā demonstrate genuine progress toward course learning outcomes.

The diverse ākongā activities, from face-to-face workshops and digital quests to peer collaboration and reflective annotation, generated rich and continuous streams of learning data. These data streams required systematic observation and response from kaiako. To capture the learning journey of international ākongā across multiple platforms and environments, kaiako employed a systematic coding framework that transformed routine observations into meaningful insights and personalised formative feedback letters.

During live classroom sessions, kaiako created attendance and participation codes based on direct observation of how ākongā engaged with face-to-face learning opportunities. Through careful monitoring of Perusall activity, kaiako manually assigned peer-to-peer discussion codes that capture the quality and depth of collaborative annotation and academic discourse. Kaiako also observed ākongā progress through Rise 360 and manually created learning quest codes that reflected how ākongā attempted challenges and demonstrated understanding. Finally, kaiako evaluated Mural contributions and manually generated formative task completion codes based on ākongā engagement with weekly formative assignments, visual collaboration exercises, and portfolio development activities.

The manually coded data streams for each ākongā from the classroom, Perusall, Rise 360, and Mural engagements converged at the end of each week, when kaiako synthesised participation, discussion, progress, and formative task codes. The hands-on

coding process enabled kaiako to capture nuanced learning behaviours and cultural transformations that automated systems might have missed, creating comprehensive learning profiles that informed personalised weekly feedback letters. This systematic manual observation allowed kaiako to respond to the unique combination of strengths and challenges made by each ākonga across all learning environments. Kaiako crafted personalised letters that transformed observational codes into coherent, caring communication, achieving intimate dialogue within large cohorts. Letters followed deliberate emotional architecture designed by kaiako: the opening celebrated specific observations, the middle section addressed challenges encouraging further growth, and the closing provided actionable guidance.

Kaiako orchestrated intensive block delivery that created compressed transformation journeys where ākonga were seen to transform from anxious observers to critical contributors. Kaiako abandoned an exclusive reliance on summative assessments in favour of multi-modal formative evidence capturing ākonga transformation. Prior to each course commencement, kaiako checked all digital platform integrations, updated quest content based on previous cohort feedback, and prepared coding frameworks tailored to specific course requirements. Throughout delivery, kaiako maintained platform functionality, responded to technical issues, and continuously refined the manual coding system based on emerging patterns and cultural insights gained from working with diverse ākonga cohorts.

Resources

Learning materials for the FBL framework were provided through an integrated ecosystem centred on Microsoft 365, with Moodle as the primary learning management system (LMS) and Teams facilitating communication. Perusall, Rise 360, and Mural served as additional tools, Perusall being the only one requiring a unique login. Ākonga required basic laptop computers with internet connectivity and accessed this core system using a single Future Skills password. Additional online tools included Perusall for social e-learning, Rise 360 for interactive modules, and Mural for virtual collaboration. This integrated approach accommodated diverse technological competencies whilst minimising access barriers for international ākonga. Nonetheless, the task of shifting between the various online tools did create friction for some ākonga, leading to ongoing development work which is discussed in the evaluation section below.

Course materials consisted of multimedia resources designed for diverse learning preferences and cultural backgrounds, including explainer videos with transcripts, audio podcasts, Q&A videos, and software simulations. Interactive learning progressed through Rise 360 modules featuring gamified quest systems and scenario-based learning, whilst Perusall provided annotated readings from academic literature and New Zealand business case studies. All materials were developed by kaiako in collaboration with faculty, industry partners, and pastoral care teams, ensuring cultural sensitivity and

industry relevance. Materials underwent continuous revision based on cohort feedback, with updates implemented each course delivery.

Ākonga received technical training in the form of targeted software simulations and guidebooks containing synthesised notes from previous course iterations. Authored and maintained by kaiako, these guidebooks captured key concepts, practical applications, and solutions developed through the collaborative learning community. Technical support operated through kaiako-mediated assistance during live sessions, enabling immediate problem-solving and system adjustments. External materials were sourced through institutional licences or Creative Commons (CC) arrangements. Kaiako retained ownership of FBL content created using materials sourced using the institutional license. Materials created based on CC materials were redistributed under the same license, as required from the Attribution-ShareAlike 4.0 International Deed.

Timetable

Courses within the BAM and MAM programmes operated on intensive eight-week blocks and were delivered using a cohort-based structure through four annual intake periods, February, April, July, and October, with ākonga enrolled in two concurrent 15 credit courses totalling 30 credits per block. This means ākonga were classified as full-time students. Each block required approximately 300 hours of learning engagement, including 14 scheduled face-to-face contact hours weekly (four sessions across three days), structured online learning activities, and workplace-based experiential learning opportunities (Kolb et al., 2014). BAM ākonga typically allocate six to eight hours weekly to digital platform engagement, whilst MAM ākonga require between 14 and 16 hours each week, reflecting the research-intensive nature of the postgraduate programme. The remaining hours integrated workplace application with academic learning, ensuring continuous connection between theoretical concepts and practical experience.

The concentrated eight-week delivery provided structured flexibility that accommodated international ākonga managing work commitments whilst ensuring cohort cohesion for peer learning. Course materials became available one week prior to commencement, and digital platforms remained accessible throughout each week to enable balanced engagement across online learning, workplace application, and face-to-face preparation. Assessment deadlines were strategically distributed across the block with continuous formative assessment providing ongoing feedback, enabling ākonga to work ahead where possible whilst maintaining collaborative learning essential for cultural adaptation and peer support.

Assessment

Summative assessments underwent a department wide process of pre-moderation and were designed to both suit the blended approach and be GenAI-resilient. In addition to pre-moderation, there were peer marking processes in place to confirm rubric consistency, post-moderation review for marking consistency, and periodic external moderation in accordance with institutional policy. All four courses utilised two major summative assessments with varying weightings, for example RME and MS in the MAM programme had assessments with 30% and 70% weighting, whilst HRM and RM in the BAM had two assessments with 50% weighting. Most courses shared learning outcomes across the two assessments, so that ākongā had multiple opportunities to evidence the expected learning. However, there was at least one learning outcome in most courses that could only be evidenced through only one of the assessments.

The FBL framework operated independently from summative assessment marks, because it was concerned purely with formative activities to enhance the validity and authenticity of summative assessment. Importantly, formative engagement patterns were not used by kaiako as surrogate indicators of summative performance. The integrity of summative assessment results was maintained by keeping formative and summative performance separate; formative activities were not allowed to influence summative results through any bias. The process of creating formative feedback letters was kept separate from the process of summative marking. To prepare summative assessment results for post moderation, kaiako re-inserted identifiable information to the dataset.

Once assessments were marked and post-moderation was complete, kaiako initiated a results triangulation process which compared ākongā formative engagement patterns with summative performance. This was done to provide ākongā with additional feedback about their learning that they could apply for the remaining assessments or in future courses. For kaiako, the triangulation pointed toward improvements in formative activities and future course delivery.

Institutional ākongā success services

All ākongā could access comprehensive support services designed specifically for international learners. Automated analytics were not employed in favour of the systematic coding framework described earlier, which enabled kaiako to identify ākongā requiring additional support and provide targeted referrals to appropriate services. Through weekly formative observation, kaiako could refer ākongā to student success services for attendance concerns or pastoral care issues, or to learning support for academic skills development including referencing, writing, and basic software competencies.

Individual mentoring support operated through structured consultation schedules. All ākonga received between ten and twenty-minute one-on-one consultations during week three focusing on academic progress and study planning, followed by additional consultations in weeks six or seven addressing final assignment preparation. The learning support team organised workshops during week three covering essential academic skills, supported by peer mentors who provided ongoing guidance throughout each course block. These services complemented discipline-specific support from kaiako whilst addressing broader academic development needs common among international ākonga.

Future Skills maintained a multicultural environment with staff representing diverse cultural backgrounds and celebrated cultural events from all represented cultures, creating an inclusive community atmosphere for international ākonga. Technical support operated through a dedicated IT team providing laptop borrowing, equipment repair, connectivity assistance, and software training to ensure all ākonga could fully participate in the blended learning environment.

Administrative support operated through a dedicated student success team. Library and academic writing support were delivered through the learning support team, whilst career development operated through a specialist employability team offering CV development, cover letter writing, application processes, and interview skills training.

Constraints

The FBL framework was developed and tested in cohorts of between twenty and thirty ākonga. The framework was designed to improve summative performance by identifying learning difficulties early and providing a systematic, yet emergent formative curriculum delivered through a blended format. However, behavioural codes capable of meaningfully distinguishing between learning difficulties required nuanced cultural awareness. In addition, each cohort generated novel patterns requiring new feedback variants. The observation and feedback element of the FBL framework also created barriers to institutional scaling. Scalability also faced constraints from the model's reliance on real-time classroom delivery.

The FBL framework operated within NZQA regulatory requirements and supported constructive alignment, pastoral care, and rigorous moderation processes. Industry partnership coordination presented ongoing challenges due to ethical considerations surrounding confidentiality and appropriate workplace information use by ākonga. Technology infrastructure limitations included the inability of the SSO package to accommodate the pedagogical tools needed for the FBL framework, and ākonga having to navigate multiple login requirements.

Evaluation

The FBL framework implementation began with the RE course in the MAM programme in October 2024, based on a conventional PowerPoint-based delivery. The first move toward developing the courseware that fed into and drove the FBL framework involved using existing courseware as a starting point, beginning a discipline of systematic transcription of all lectures and workshops using Notta.ai. This transcription process provided rich data sources that enabled real-time reflection on ākonga feedback from each existing activity. The transcript data became the foundation of materials development across subsequent platforms, including question-and-answer videos, podcasts, and curated article collections that would later populate the interactive blocks in Rise 360, the collaborative activities on Mural, and the assigned readings in Perusall. In February 2025, the Mural and Perusall platforms were introduced using the materials developed from transcript analysis. This was followed by integrated Rise 360 modules in April 2025. ‘Secret key’ quest systems and systematic weekly feedback letters were introduced in July 2025, to make it possible to observe ākonga progress and to create incentives from gamification. This iterative data-driven development approach proved highly effective, as it enabled organic framework evolution based on authentic ākonga learning evidence rather than theoretical assumptions about the ideal mix of online courseware and live classroom activities.

The transcript-based development process revealed significant insights into ākonga needs, particularly around feedback where some ākonga indicated a preference for mobile-friendly platforms and regular acknowledgment of online engagement across Perusall comments, Rise 360 activities, and Mural contributions. This preference, though, had to consider the majority of BAM ākonga, and a significant minority of the MAM ākonga, with developing digital literacy skills who reported feeling overwhelmed by multiple platforms.

The weekly feedback letter system emerged as the critical solution binding all framework elements together, informed by patterns identified through systematic transcript analysis. Originally, the weekly feedback letters were generated using the engagement and attendance codes via VLOOKUP and mail merge and were posted in the class Mural page for students to copy and paste into their private Mural page. However, BAM ākonga would mostly access Mural on their mobile devices; the user interface for finding and saving the feedback letter from the class page proved too complex. It proved much easier to use alternative offline access through Teams downloads and printed materials. Whilst employers increasingly demand digital literacy and GenAI skills, the FBL framework was continuously developed to accommodate the diverse learning preferences of BAM and MAM ākonga, so as to meet the ākonga half-way, and to ensure summative assessment results are valid and authentic regardless of ākonga engagement with technology.

Preliminary triangulation results from comparative cohort analysis demonstrate the effectiveness of the framework. Ākonga who engaged in FBL demonstrated clear evidence of meeting the learning outcomes. The FBL model enabled kaiako to more closely observe ākonga, and for ākonga to evidence their learning in multiple ways. For ākonga, this meant enhanced validity and authenticity of summative assessments, reduced resubmission requirements, and higher grade distributions compared to conventional delivery cohorts. External factors continue to impact framework development, particularly rapid GenAI advancement and evolving technology requirements, which necessitate continuous course material updates to maintain relevance. The FBL framework is designed to be in a continual phase of active development; the iterative process of transcript- based insights informing systematic integration refinements across all elements is a core feature of the framework. The actual tools used by kaiako across the FBL framework can vary according to kaiako and ākonga preferences.

At the time of writing, an online service called calibr.co.nz is being developed. This combines the features of [Notta.ai](https://notta.ai), [Rise 360](https://rise360.com) and [Mural](https://mural.co). Currently kaiako spend a lot of time manually downloading the session transcripts from [Notta.ai](https://notta.ai) into Teams for ākonga to access, with no easy way for creating breakout rooms or isolating the various learning activities from live sessions. Kaiako also spend a lot of time on manually creating Articulate Rise lessons and the Rise ‘secret key’ quest system for monitoring ākonga progress. Articulate Rise is also an expensive service for kaiako to maintain. Mural activities currently exclude BAM ākonga because of the device preferences these ākonga have expressed, and so the activities do not link well with transcripts. Calibr is designed to overcome these technical and administrative limitations. A second new online tool, enquir.co.nz, is based on Perusall features and adds currently missing online research capabilities. Perusall also proved difficult for BAM ākonga to navigate on mobile devices; kaiako observed that both BAM and MAM ākonga preferred to annotate their own selected readings for assignments as opposed to only those readings assigned by kaiako. Enquir is designed to give ākonga more control over their research activities while also giving kaiako visibility and the ability to nudge ākonga along. Overall, Calibr and Enquir are designed to combine the requirements and workflows of the FBL framework, while providing a more seamless kaiako and ākonga experience.

Editor's notes:

The FBL framework presented here is an excellent example of how blended models can be shaped to serve ākonga in specific educational contexts. International ākonga are typically studying in a language other than that of their home country, so the emphasis on formative activities and development of a learning community are highly valuable. The additional effort required for the evaluation of participation, discussion, progress and formative engagement is considerable, as is the additional step of

preparing a weekly, personalised letter. Perhaps GenAI might support these efforts going forward, because they are no doubt highly valued but also labour-intensive.

The model presented here does have major constraints, which the author has identified. Two deserve special attention here. Firstly, there is the considerable range of IT accounts, with each application serving a specific purpose. An important principle in designing blended models is to have the blend operate in as seamless a way as possible. It could be that the sheer range of online tools in use creates an unfortunate but real barrier for some ākonga. Second, as presented the model is not scalable. The weekly grading of ākonga engagement and the writing of personalised letters might be redesigned so as to provide the same valuable feedback, but less often. Still, the FBL framework presents us with an exemplary starting point still being further refined.

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CASE STUDY MESO.3

Open Polytechnic: Bachelor of Teaching (Primary Education)

Melissa McMinn | Lynne Brice

“Blending the online learning with face-to-face time in their local school offers ākonga opportunities to participate in collaborative learning experiences, become part of a local school community, and to actively learn alongside qualified teachers.”

Context

The Bachelor of Teaching (Primary Education) is a relatively new degree programme offered by the Open Polytechnic, as of 2023. The programme is comprised of eighteen 15 credit theory, curriculum and pedagogy courses, and three 30 credit practicum courses (which each include an eight-week practicum placement in a school). In addition, ākonga spend 140 days of school-based learning days in partner schools and attend three noho marae³⁰ over the three full-time years of the programme.

The Open Polytechnic self-paced asynchronous delivery model allows ākonga to study online by distance from across Aotearoa. They decide when and where they study, working around other commitments. There is no need to travel to a main centre to attend a campus-based programme. In this practice-based model of engaging with initial teacher education (ITE), Open Polytechnic provides access for a more diverse ākonga group, who can remain in place to benefit their communities as they learn.

The practice-based delivery of courses in the Open Polytechnic model gives ākonga access to world-class materials authored to the New Zealand context, academic expertise, and insight into the development of innovative and future focussed teaching strategies. It also equips ākonga with transferable skills to support learners in schools to effectively engage with digital technologies. Theory tuition is facilitated through the

³⁰ An overnight stay at a marae, a cultural location in Māori society.

Open Polytechnic’s iQualify learning management system. Online courses include a mix of reading, video, and interactive activities.

Initial teacher education programmes also require face-to-face elements in addition to the online learning, to fulfil Teaching Council of Aotearoa New Zealand conditions. The Teaching Council mandates practice-based programmes which purposefully partner with schools, to ensure high-quality ITE. The blended delivery model was co-designed with a range of partners to ensure graduates emerge ‘work-ready,’ with the skills needed to support their practice. The blended model also reflects the ongoing desire of the sector to work in closer partnership in the delivery of ITE. Placing the ākonga at the centre of the model, all partners work together to fully support their development into the teaching profession (see Figure 1 below).

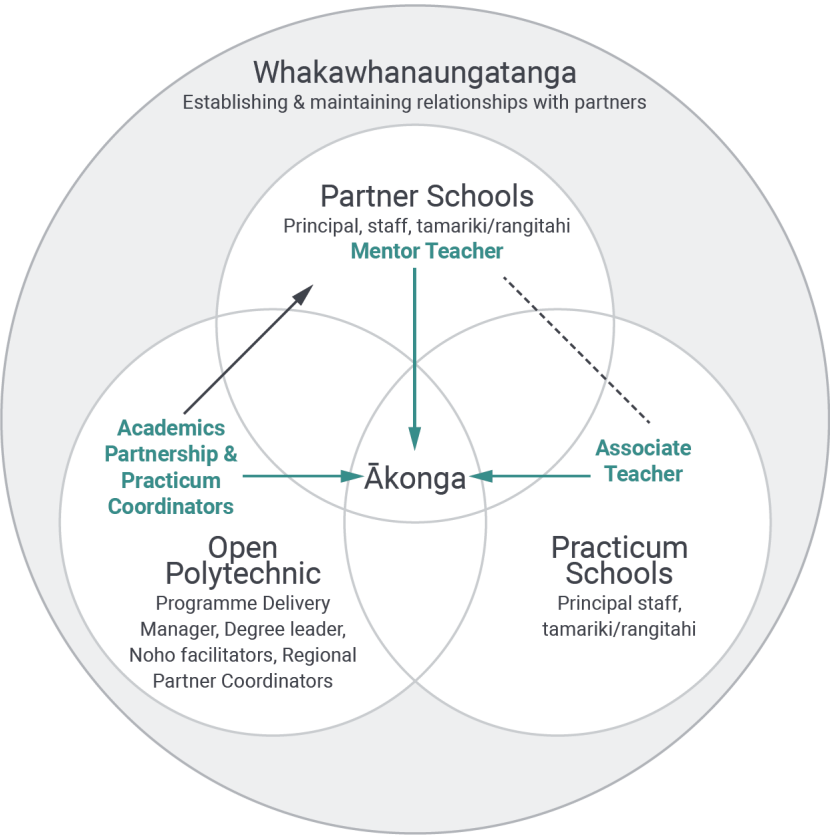


Figure 1: Partnership diagram

Blending the online learning with face-to-face time in their local school offers ākonga opportunities to participate in collaborative learning experiences, become part of a local school community, and to actively learn alongside qualified teachers. Following

Grudnoff et. al., ‘practice is both theoretical and practical, with theory informed by practice and practice underpinned by theory in an ongoing recursive way’ (2017, p. 308).

In short, this programme is blended because it must be! Theory and practice are considered equally important in preparing ākonga for the realities of the classroom, and the Teaching Council insists upon practical experience for graduates. Online asynchronous learning and direct in-school experience bring these two aspects of theory and practice together in one cohesive programme.

Description

Ākonga activity

Courseware for the Bachelor of Teaching (Primary) courses is completely online on the iQualify platform. Materials include full narrative text as well as external links, a combination purposefully designed to keep ākonga in iQualify and so provide a thorough view of progress. Students can monitor their own progress as they work through courses via a completion percentage bar on each course card on their programme landing page and receive feedback on completed formative activities. For the most part, progress through course materials is highly flexible.

Within each course, ākonga have direct, asynchronous access to their course facilitator and peers through purpose directed Talk Channels in iQualify. Ākonga can post on ‘General Questions’ or ‘Assessment’ channels to all others in the course or can send private messages to the facilitator through a ‘Private Chat’ channel. They can respond to announcements sent by the facilitator and reply to messages from one another. If needed, ākonga can also have personal face-to-face contact with the course facilitators through self-initiated video appointments.

The iQualify courses contain all assessment tasks, and the mechanism for uploading submissions. Once marked, ākonga can access a feedback sheet and view the marks awarded. In the Bachelor of Teaching (Primary Education) programme, all assessment tasks must be passed (50% or higher), and most tasks have a resubmission opportunity. No synchronous requirements are required beyond the practicum, school-based learning, and noho marae elements described below.

Practicum is a traditional and required aspect of teacher education in Aotearoa. Each practicum is a sustained period spent in schools, working with tamariki³¹ alongside a registered teacher in an allocated class. Practicum provides ākonga with a context in which to take on the role of teacher, while still being guided and supervised. It also allows ākonga to experience every aspect of school life, including planning, assessment,

³¹ Children - normally used only in the plural.

duties, and meetings. Ākonga spend three eight-week blocks on practicum in three different local schools, providing experience in diverse settings. It is through the practicum placements that ākonga demonstrate their abilities against the Teaching Council's *Standards for the Teaching Profession*. Ākonga are generally not expected to study asynchronously at this time, so their focus can be fully on their placement.

School-based learning is an important formative component of the programme, and a point of difference for the Open Polytechnic ITE programmes. Full-time ākonga complete two days a week in a partner school (a minimum of 140 days) across the programme, in addition to 120 days of practicum. Ākonga attend the same partner school for their school-based learning throughout their programme. This offers ākonga opportunities to participate in collaborative learning experiences, become part of a local school community, and actively learn alongside qualified teachers. School-based learning differs from practicum in that ākonga move across the school, observing and interacting with teachers and students in different year levels.

Ākonga also attend three noho marae across their programme, with ākonga (peers) from their programme and other programmes in the Open Polytechnic ITE suite, including early childhood education and secondary education programmes. Open Polytechnic kaiako are also in attendance. Noho marae are held across Aotearoa New Zealand at multiple times of the year, and ākonga can select when and where they attend. The noho marae are facilitated by mana whenua³² and learning is linked to course work and assessment tasks.

Kaiako activity

Academic Staff Members (ASMs) facilitate courses, acting as the first point of call for academic guidance and support. The ASM role includes communicating with ākonga through weekly announcements via Talk Channels in iQualify, providing support through the Assessments channel, and responding to ākonga questions. Course facilitators can monitor ākonga progress using engagement reports and other analytics provided in the class console of the iQualify platform and will reach out if it seems extra support is warranted. Facilitators can also communicate with ākonga through the iQualify 'Discussion Notes' function in the course work pages, making links between the content and school experiences or current events. Facilitators check all course pages and assessments before the course opens for ākonga, identifying and actioning any maintenance or content changes required.

³² (Those with) territorial rights, power from the land, authority over land or territory, jurisdiction over land or territory - power associated with possession and occupation of tribal land. The tribe's history and legends are based in the lands they have occupied over generations and the land provides the sustenance for the people and to provide hospitality for guests.

During the first weeks of a programme, new ākonga are invited to an orientation hui³³ in Microsoft Teams. This is an optional hui, in which the various elements of the programme are discussed; ākonga can ask questions and meet their teachers and peers. Optional hui are also held prior to and halfway through practicum placements, and prior to the culminating programme assessment.

Through iQualify Talk Channels, course facilitators provide a link to a booking calendar. Ākonga can book a 20-minute Microsoft Teams appointment with their kaiako. While not common across Open Polytechnic courses, these are well-attended, particularly leading up to assessment due dates. Although provided for ākonga benefit, facilitators find these a great opportunity to connect face-to-face with ākonga and get to know them better; ‘...we looked forward to these engagements, were energised by them and rewarded through the increased confidence of ākonga who participated’ (Brice, 2023, p. 4). In essence, the optional hui and office hours elements intentionally serve to enhance relational connection, provide increased access to academic advice and guidance, and facilitate peer to peer connection, something often identified as lacking in a fully online and asynchronous learning experience.

Typically, in the Open Polytechnic model, adjuncts undertake the marking of assessments. In the case of the Bachelor of Teaching (Primary Education), these adjuncts are registered teachers. ASMs are involved in review marking, ensuring that marking is consistent across markers and iterations of the course.

ASMs also take on the role of Visiting Academic (VA). The VA meets ākonga prior to practicum and briefs them on the requirements of the placement, usually via Microsoft Teams. The VA is the point of liaison with the associate teacher and principal, and arranges observation(s), offers advice and guidance, and provides written and oral feedback to ākonga. They also set specific targets for success, and assesses, evaluates, and debriefs each placement.

Also supporting ākonga are the teachers in their practicum and partner schools. These teachers are the ‘face of teaching’ for pre-service teachers in the school, filling the role of supporter and guide, experience interpreter, and mentor. These teachers, who are not employees of Open Polytechnic, are compensated for these roles; the success of these relationships are the keys to pre-service teachers’ achievement (Jones et al., 2014; Lawson et al., 2015). These relationships are also key to customising learning contexts and addressing the needs of individual ākonga.

Before any school-based learning practicum, ākonga are invited to a hui with an Open Polytechnic Regional Programme Coordinator (RPC) and school mentor teacher to discuss expectations. RPCs check-in with ākonga and mentor teachers during periods of school-based learning via email, phone, and, if necessary, online hui to discuss

³³ Gathering, meeting, assembly, seminar, conference.

progress, provide advice, and strengthen the school partnership. The school-based learning hui and check-ins are newer additions to the wrap-around care as the programme grows and evolves, on feedback from stakeholders.

Resources

The learning materials for the Bachelor of Teaching (Primary Education) are provided through the iQualify platform. Ākonga are required to have access to a computer and the internet. The online courses include a mix of reading, video, and interactive (formative) activities, providing checks for understanding. These activities are based on an underlying course narrative, written in a tutorial style (Holmberg, 1983). Accompanying ākonga through their narrative are four avatar characters, Rawiri, Sina, Priya, and Keith: all are qualified teachers with various years of experience, currently teaching in classes that span the primary school years. The avatars give examples of how theoretical ideas work in practice in a classroom, reflect upon their own successes and missteps, give tips for teaching (involving whānau), and cover emotional survival.

Course material development at Open Polytechnic is highly centralised and projectised. iQualify courses are designed by subject matter experts (SMEs) who are usually not the ASMs teaching each course. SMEs work with learning designers in accordance with the Open Polytechnic Learning Design and Development kaimahi, who are experts in developing narrative-based course materials tailored to Aotearoa New Zealand and work to transparent quality standards. No textbooks are required by ākonga, and materials are kept up to date and further enhanced by ASMs. Open Polytechnic owns all the intellectual property across each course and complies fully with copyright requirements. Digital media is also prepared by a team of internal experts.

On the landing page of their online learner portal, ākonga are provided with resource videos covering learning support, how to get started, tips for online learning, and a tour of the iQualify platform. A learning dashboard is also included. Ākonga are given access to a short, non-credit bearing course called ‘Study Toolkit,’ which covers topics such as staying motivated, setting goals, writing assessments, academic integrity and how to use the library.

Alongside the coursework, ākonga are provided with handbooks including *Getting Started with School-based Learning* and the *Practicum Handbook*. These are available to download within the course materials and are also sent to ākonga via email. These handbooks outline the roles and responsibilities of ākonga while in schools, the roles of other stakeholders, describe the required and suggested tasks while in schools, provide links to support, and include information about relevant policies and laws (including *The Education Act, 1989*).

Timetable

Most courses in the Bachelor of Teaching (Primary) programme are 16 weeks long and include twelve topics. Ākonga are encouraged to complete a topic per week, allowing a week's consideration for assessments and a week or two at the end of the course in the case of resubmissions being required. However, the flexible distance learning model of Open Polytechnic means ākonga can study when they choose, so long as due dates are met. The entire course is made available to ākonga two weeks prior to the official course start date and assessments can be submitted early, so ākonga can work ahead of the suggested schedule if desired.

Practicum courses are organised slightly differently. These include six topics and are 20 weeks long to allow sufficient time for ākonga to complete the topics before starting their eight-week placement. Due to Teaching Council requirements all 40 days of each practicum must be completed, so any missed days need to be made up; the extended course end date allows for make-up days and the completion of final assessments which require sign-off by the VA before ākonga can submit.

Open Polytechnic courses are usually offered multiple times each year, not restricted to traditional semesters. This usually means ākonga at different stages are included in the same course instance. The Bachelor of Teaching (Primary Education) programme does not yet have this enrolment pattern. Most courses have three intakes per year (currently in February, June, and October), to allow for multiple entry points while working around the school calendar.

Assessment

The assessment tasks and rubrics for the Bachelor of Teaching (Primary) were developed during the course development process by SMEs and learning designers. These were reviewed by an ASM who evaluated the technical accuracy of the assessments, learning outcome coverage, alignment of the assessment tasks to the learning outcomes, and whether the course material was sufficient for ākonga to complete the assessments. Assessments were then sent to the Open Polytechnic Assessment Centre for pre-moderation. A final pre-moderation report is made available to the learning designer and the ASM. If there are any issues raised from pre-moderation, the learning designer works to resolve them in consultation with the ASM and SME. External post-moderation is initiated by the Assessment Centre, in accordance with the Open Polytechnic's Assessment and Moderation Policy, using a valid sampling process. Internal and external moderation completed on the first courses opened highlighted minor tweaks were required in some instances, but overall assessments were sound.

The online course work includes a range of interactive non-assessed (formative) tasks that encourage active learning and scaffold towards compulsory assessment tasks. Most feedback on non-assessed tasks is automated, providing generalised guidance.

Most Bachelor of Teaching (Primary Education) courses have two assessment tasks, though some courses have three and others four. Non-practicum course assessments are allocated a percentage mark, and practicum course assessments are competency-based (competent/not yet competent).

The final assessment, the Culminating Integrative Assessment (CIA), takes place following the final practicum. This assessment is a live presentation, held virtually on Microsoft Teams, and requires ākonga to explore a detailed ‘puzzle of practice’ they encountered somewhere in their pre-service teaching experience. The presentation requires them to synthesise theory and practice in a way that demonstrates their ability to apply theoretical knowledge to a practice situation that was challenging for them. The panel of markers includes the ASM, the VA, and an in-school partner such as an associate or mentor teacher. This form of assessment, at the end of the final practicum, is mandated by the Teaching Council.

Institutional ākonga success services

All ākonga enrolled at Open Polytechnic have access to universally available support services. Learner Engagement & Success Services provide engagement support through a range of individualised and automated interventions triggered by data analytics. As an example, if ākonga have not logged on to their courses within ten days of their opening, an automated prompt is sent for them to do so. Further automated interventions respond to low engagement levels, assessments not submitted by the due date, or resubmissions not completed. Having all course materials in iQualify provides a detailed set of ākonga analytics that informs highly targeted interventions.

Personalised one-on-one mentoring support is provided for those ākonga needing assistance with study planning, time management, organisation, or more support in understanding and using the in-built features of the courseware in iQualify. These mentoring services are not discipline or subject aligned. Additional equity-focussed support is also available from a specialist team of Kaihāpai³⁴ Māori and Kaihāpai Pasifika mentors who provide on-going advice and guidance, and regular contact, with ākonga.

For those ākonga who identify specific learning needs, Disability and Access Services provide individualised support and offer a range of assistive technologies that allow for on-screen modifications to meet their needs. If required, hard copies of course materials can be provided for those with identified disabilities.

³⁴ Advocate, champion, promoter, supporter, upholder, backer, campaigner, proponent.

Through the iQualify Talk Channels ākonga also have direct access to a dedicated librarian, and can request support for finding information, writing, and referencing. Ākonga across all ITE programmes are also supported by a shared administration team that includes two full-time partnership co-ordinators, a practicum co-ordinator, and several contracted regional partnership co-ordinators.

Constraints

The centralised Open Polytechnic model, which works extremely well in providing a coherent asynchronous study experience at scale, is tailored to the requirements of the programme in this blended learning model. The requirements of the Teaching Council add a further layer of in-school learning, requiring the coordination of multiple expert systems and entities. Because ākonga require placement in three different schools (one as partner or host school for the three-year duration of school-based learning and one practicum placement, and two other schools for the other practicum placements), there is a heavy administrative load. This aspect of programme delivery means establishing and maintaining partnerships across Aotearoa becomes important, an arrangement unique to the Open Polytechnic. Most other ITE providers service only their local regions and have long-term sustainable relationships established with partner schools. By contrast, Open Polytechnic ākonga study by distance, and so often live and work in remote rural areas. It is not until enrolment occurs that Open Polytechnic knows which geographical areas need attention; the logistics of facilitating all aspects of delivery across multiple partners, right across Aotearoa, are extremely challenging. Currently, the organisation of school-based learning and practicum partners and placements are recorded on mammoth spreadsheets.

The organisation and facilitation of the final CIA assessment is also a large and complex task, which requires the communication with and coordination of several stakeholders. Again, currently, this work is recorded on spreadsheets. As with school-based planning, this spreadsheet solution is not ideal; however, to date, a suitable technology solution has not been found.

Due to the heavy administrative load and reliance on external stakeholders in the delivery of this programme, there are some concerns about the scalability of the programme. While the lack of set enrolment caps for in-takes allows for flexibility, it is difficult to resource the programme in advance.

Deciding when to offer courses has been challenging, given the constraints of the school year and ākonga eligibility to government loans and allowances (StudyLink), which requires enrolment in a full year of study. While we had previously planned to ‘pause’ study activities over summer, as schools are unavailable for ākonga placements, prioritising StudyLink requirements meant we needed to alter our course offerings to

allow ākonga to enrol full-time, including across the summer period. These requirements often necessitate a Grade Pending for ākonga results, as ākonga need to return after coursework is completed to finish practicum placements or school-based learning (sometimes the following calendar year).

Evaluation

The Bachelor of Teaching (Primary Education) programme opened in 2023, before all course materials were completed and before all systems and processes related to school-based learning and practicum were fully developed. The first ākonga enrolled into the programme could only be enrolled as part-time, in the four courses then available. They experienced some uncertainties in the early offerings while the programme team finished course writing, established partnerships, and finalised supporting resources such as the Handbooks. Nevertheless, the first course offerings achieved high success rates, exceeding all organisational targets. Successful completions ranged from 100% in two courses to 93% & 92% across the other two courses. Limited feedback from the Open Polytechnic First Impressions Survey 2023 provided some insight into uncertainties from ākonga related to learning online; when and how to begin; and the need for increased communications between schools, ākonga, and Open Polytechnic to ensure shared understanding of all roles and responsibilities. More support for assessment writing was also identified.

The Open Polytechnic Student Satisfaction Survey (2023) provided contradictory feedback, with some ākonga finding the online experience ‘remote’ with ‘no personal interaction,’ and others enjoying a positive experience, highlighting the flexibility that enabled them to continue working while studying. Despite these mixed results, pass rates were high and ākonga were able to have relationships in partner and practicum schools. In response to the survey question ‘What could we do to improve?’ ākonga suggested study groups for more interpersonal interaction, the availability of hard copies of materials, more or better communications, and more videos instead of readings in the course materials. Ākonga found being able to fit study around work, having a study plan to follow alongside fixed due dates, and access to a helpful tutor all useful aspects of their experience. This feedback reflects the complexity of this practice-based blended model, the ever-present challenge of provisioning and balancing (not too much, not too little, just enough, just-in-time) multiple sources of support, both human and non-human.

During 2024, the programme team continued to revise and refine the Handbook information, improve administrative processes related to partnership co-ordination, update course information and improve assessments according to recommendations and experiences. Course writing was also completed, so ākonga were able to enrol and complete full-time.

External environmental factors further impact the programme. Changes within the Ministry of Education, and the government's New Zealand Curriculum Refresh and the mandating of structured literacy and structured mathematics, result in outdated or incorrect material in courseware and assessments. The Ministry of Education website is also being rebuilt, resulting in multiple broken internet links (which ākonga notice). ASMs are not able to directly change course materials, and changes requested through the Open Polytechnic Live-Fix courseware adjustment process are reactive. As enrolments grow, the challenge to meet demand, to achieve a scalable and ākonga-centred delivery is heavily reliant on partnerships with the Primary School-sector, which is itself currently under immense pressure, rapidly implementing policy and curriculum changes, facing teacher shortages and burnout.

Despite these challenging external factors, feedback from school partners is largely positive, with school-based learning being particularly well-received as an important factor in meeting stakeholder needs, Teaching Council and NZQA requirements, in preparing ākonga to serve their communities. The Bachelor of Teaching (Primary Education) benefits from blending the world-class online learning materials of the Open Polytechnic with the expertise of registered teachers in real time in classrooms across Aotearoa. The first cohort of Open Polytechnic Bachelor of Teaching (Primary Education) will graduate in 2026.

Editor's notes:

The underlying asynchronous, independent open and distance learning (ODL) model is clearly discernible across this case study. The Bachelor of Teaching (Primary) blended approach is an exception to the Open Polytechnic's core ODL model, only as required by the Teaching Council. The experience is designed to deliberately enable the compulsory practicum and placement conditions, adding to the administrative overhead and somewhat limiting the anytime enrolment possibilities of the generic ODL model. However, the model is also able to facilitate in-service initial teacher education across the entirety of Aotearoa, not limited to immediate region or large centres; the model also draws on institution-wide practices including courseware development, student success services, and marking systems. Here, we see the ways in which professional body requirements can be addressed through blended learning as an extension of an institutional operating model. The reference to StudyLink demonstrates how policy decisions – which are likely designed to full-time, on-campus ākonga in mind – can limit innovation and require workarounds for programmes that are fully compliant with educational standards.

That courseware is designed by external subject matter experts in conjunction with dedicated learning designers, working to the same educational standards, is a strength of the blended model. The high-quality consistency of course materials means more confidence in the remote study experience, and a better ability for ASMs and ākonga success services to benefit from reliable analytics, reinforced by comparable on-platform ākonga activity.

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CASE STUDY MESO.4

Otago Polytechnic: Post Graduate Certificate in Learning Design (Level 8)

Daniel Fridberg | Amy Benians | Emma Allen | Terri Brian | Ana Terry | Jody Takimoana

“A central, continuing challenge for the programme is to make this blended model more than a technical assembly of synchronous and asynchronous learning activities. Rather, it strives to make the learning experience of this blend meaningful and comprehensive, extending beyond its components.”

Context

The education sector and corporate world require learning designers who can create engaging, relevant learning experiences tailored for Aotearoa New Zealand contexts. The Postgraduate Certificate in Learning Design (Level 8) (PGCLD L8) was developed by Te Ama Ako | Learning and Teaching Development (TAA) at Otago Polytechnic in response to this need and to the emergence of learning design as a dedicated, specialist skill (Selingo, 2017).

The PGCLD L8 was created as a 60 credit, part-time, distance learning programme divided into four 15 credit courses after consultation with a range of industry stakeholders. It began delivery in February 2023, providing ākonga with the skills and knowledge necessary to critically evaluate and apply learning theories, learning technologies, and visual design principles to the learning experience they create, and to manage their learning design projects. To date, ākonga have been learning designers, educators, technical writers, graphic designers, librarians, corporate trainers, and human resource personnel alongside their studies. They enrol in the programme aiming to consolidate their existing skills in learning design, or having identified this field as a suitable career transition.

Otago Polytechnic promotes ākonga-centred, active, and reflective learning experiences, and the PGCLD L8 accordingly follows a social constructivist approach informed by experiential pedagogies. The programme is fully online, providing flexibility for ākonga

who are geographically distributed and need to fit their study around other commitments.

The PGCLD L8 employs a designed blended learning approach that combines online hui tūhoto,³⁵ facilitator-led synchronous sessions, which ākonga can join in real time online or watch recordings of in their own time, with asynchronous self-paced learning. This flexibility is essential for working professionals, while maintaining the relational aspects central to effective learning. The online hui, together with self-paced learning resources and activities via the Moodle learning management system (LMS), provide the overall blended learning experience.

Learning content on Moodle is in full narrative form and includes readings, quizzes, discussion forums, podcasts, videos, and links to external resources. Aligned with the principles of the Universal Design for Learning (UDL) (Cast, n.d.), the programme's design and development focus on accessibility by providing multiple ways of engaging. The learning content itself is presented using a multimedia learning approach made up of the written word, audio recordings, videos and animation, and graphics.

A central, continuing challenge for the programme is to make this blended model more than a technical assembly of synchronous and asynchronous learning activities. Rather, it strives to make the learning experience meaningful and comprehensive, extending beyond its components. This meaningfulness is achieved, the PGCLD L8 team believes, through embedding biculturalism in the programme's teaching philosophy, facilitating the growth and development of professionals who can design equitable and accessible learning experiences appropriate to the Aotearoa New Zealand context.

The programme was designed through consultation with mana whenua, as part of its aspiration to honour Te Tiriti o Waitangi through partnerships and embedding mātauraka Māori³⁶ in its curriculum and delivery, noting that throughout this chapter the dialect of Kāi Tahu will be used to reflect Te Tiriti partnerships underlying this programme. At the centre of the teaching philosophy of the PGCLD L8 is the concept of ako, the Aotearoa New Zealand model of culturally responsive, reciprocal learning and teaching practices (Rātima et al., 2022). Ako involves distributed learning between ākonga, who are encouraged to support and learn from one another (Macfarlane, 2013). Ako is embedded into the programme through its underpinning mātauraka Māori values such as whanaukataka,³⁷ relationship building, vital to creating a safe, supportive online learning environment. The integration of values is achieved through the programme's blended delivery model's blend of synchronous and asynchronous

³⁵ (In its verbal form): To join, connect together, knit together, solder.

³⁶ Mātauranga Māori, in the Ngai (Kai) Tahu dialect.

³⁷ Whanaungatanga, Kai Tahu dialect.

learning whereby ākonga can join real-time online hui tūhoto or watch recordings of these sessions, combined with self-paced learning resources and activities in Moodle.

To action ako, the PGCLD L8 embeds the mātauraka Māori values of whakamana,³⁸ koha,³⁹ and whakatipua⁴⁰ through all aspects of design and delivery. Whakamana, empowerment, acknowledges the integrity of ākonga, kaiako, learning materials, and the environment and context in which learning takes place. It supports ākonga in empowering themselves and others as they koha, share, their developing knowledge. Whakatipua, flourishing, provides a future focus of expansion and growth. It recognises the transformation of ākonga, kaiako, industry, and the wider community, as well as shared knowledge.

Description

Ākonga activity

The PGCLD L8 is designed to provide work-ready graduates; therefore, ākonga are encouraged to develop a work-based project which they work on throughout the year. This fosters whakamana as they apply their learning to industry-relevant activities in their own context. Examples of such activities might include writing a project management and instructional design plan, designing and building online learning activities, creating blueprints, participating in design critiques, and writing a visual design proposal. This inclusive and experiential approach supports the embedding of whakatipua by engaging ākonga in authentic, industry-based tasks. Through these, they reflect on their own and others' designs or developments, considering the potential impact of their projects on learners and the wider community.

In this blended learning model, ākonga engage asynchronously and synchronously using Moodle for self-directed learning and Microsoft Teams for regular hui tūhoto and communication. The online hui tūhoto build directly on the asynchronous Moodle content, creating a complementary cycle where ākonga engage with foundational materials in their own time, then come together to discuss, critique, and apply their learning collaboratively. The programme employs a flipped learning model where ākonga complete specific readings, activities, or reflections before attending hui tūhoto, allowing synchronous time to focus on higher-level learning rather than content delivery.

³⁸ (In its verbal form): To give authority to, give effect to, give prestige to, confirm, enable, authorise, legitimise, empower, validate, enact, grant.

³⁹ Gift, present, offering, donation, contribution - especially one maintaining social relationships and has connotations of reciprocity.

⁴⁰ Growing, growth, rearing, raising, breeding.

Creating whanaukataka is prioritised throughout the programme in the way it is designed, facilitated, encourages peer-to-peer critique and feedback, and provides opportunities to work collaboratively. A two-week orientation at the beginning of the programme helps to establish these relationships and socialise the support mechanisms available to ākonga on their learning journey. Activities include mihi,⁴¹ greeting, sharing; co-constructing a kawa,⁴² set of principles; and supporting the cohort in establishing a study group. Following the orientation, weekly synchronous online hui tūhoto build on whanaukataka. These interactive sessions are for the current course being studied at each given time throughout the year.

Ākonga are constantly encouraged to share, koha, their experiences, understandings and knowledge through weekly learning activities which include discussion forums, critiques, and co-creating glossaries and media collections. Ākonga have regular interactions with kaiako and their peers through Teams and can request personal contact with the facilitator through individual *Teams* appointments or by phone.

Ākonga are guided through each course with a comprehensive weekly schedule. While there are opportunities for formative feedback on all the courses, Learning Milestones are also provided to support their progress in the *Learning Theories and Learning Design* (LT<) and *Visual Communication for Learning Design* (VL4LD) courses. Fostering ako and working collaboratively are key to many of the learning activities and are supported through peer-to-peer and kaiako feedback.

The Moodle site contains all assessments and the means of submission. Once tasks are marked ākonga can access their feedback sheet and grade, and there is an opportunity for resubmission, if needed. In line with UDL principles, assessment formats in some instances provide flexibility: for example, a recorded oral presentation instead of a written document.

Kaiako activity

The mātauraka Māori concept of ako places kaiako in a reciprocal relationship with ākonga. This reciprocal dynamic requires kaimahi to embrace interconnected roles, simultaneously serving as both kaiako and ākonga. This duality requires vulnerability within the teaching relationship, allowing for a genuine exchange of learning and mutual benefit as demonstrations of koha and whakatipua. Given that many ākonga are experienced learning design professionals, kaiako intentionally leverage this collective expertise rather than overlook it.

Building on this foundation of reciprocity, kaiako share their own mihi alongside ākonga during the whanaukataka orientation course, sharing small parts of their lives to

⁴¹ Speech of greeting, acknowledgement, tribute.

⁴² Protocol or custom.

humanise themselves in an online learning environment. The role of whakamanuhiri,⁴³ host, is embraced during the orientation module, welcoming ākonga and creating an open space for introductions and relationship building. All kaiako participate in the whanaukataka synchronous session in which the cohort co-creates an initial understanding of the mātauraka Māori concepts introduced in this module.

The care given to all ākonga is shown through the close monitoring of engagements with the online content and the attendance of the hui tūhoto. Kaiako actively monitor Moodle activity completion data to ensure ākonga are progressing through asynchronous content at a pace that enables meaningful participation in synchronous hui. This monitoring serves a dual purpose: identifying at-risk ākonga early and ensuring that hui participants arrive with sufficient shared knowledge to engage in deeper discussion and collaborative activities. At-risk ākonga are identified and contacted individually, and a support plan is implemented according to their needs. Support for ākonga extends to how kaiako approach matters such as assessment extensions and issues with wellbeing, health, and academic integrity. Understanding the context of a situation ensures a learner-centred approach to support and conflict resolution.

Each kaiako designs and develops the courses they facilitate, providing a holistic learning experience through the intimate connection between content, activity, assessment, and facilitation method. It also ensures that kaiako are knowledgeable about their subject, versed in all aspects of the indicative content. In the role of course designer, kaiako are constantly monitoring the effectiveness of different activities and updating readings or industry links. Each year has seen improvements made to both assessments and aligned content prompted from ākonga feedback surveys, teacher surveys, anecdotal evidence, and kaiako observations and focus groups.

In the role of facilitator, kaiako design and deliver online synchronous sessions which build on the Moodle course content. These sessions offer contact with the cohort and are focused around ākonga needs, providing plenty of time for discussion, questions, and collaborative group work. Facilitators adapt sessions in real time, spending more time on concepts where engagement data suggests confusion, or accelerating through areas where asynchronous discussions show strong understanding. Kaiako also monitor the forums and Teams chat daily, responding to new posts and replying to ākonga communications. As the courses progress, one-on-one sessions are offered as requested by ākonga and extra synchronous sessions are scheduled depending on ākonga need. The frequency of the synchronous sessions is determined by the course and facilitator: for example, the *Learning Technologies for Learning Design* (LTech) course also incorporates optional bi-weekly *Technology Hui* to support digital literacy capability development.

⁴³ Hosting, entertaining guests.

All kaiako are also research active as required by New Zealand Qualifications Authority (NZQA) regulations for programmes at Level 8. Kaiako encourage and support engagement and collaborations in relevant research and enterprise between ākonga, kaimahi, and communities.

The PGCLD L8 programme provides ākonga with a comprehensive suite of digital resources and platforms designed to support flexible, accessible learning. Resources fall into three main categories: the core online learning environment; communication platforms; and productivity and learning technologies.

Figure 1: A section of Moodle from Learning Technologies for Learning Design

Figure 1: A section of Moodle from Learning Technologies for Learning Design

Otago Polytechnic uses Moodle as its core learning environment. Moodle houses the written content, quizzes, audio and visual media; links to literature and podcasts in a narrative format; and provides assessment and submission functions. Many of the text resources provided are licensed as Creative Commons, reflecting Otago Polytechnic's stance on Open Educational Resources (OER). Ākonga also gain library access to online and distance learner services. Following UDL principles, a variety of resources are intermixed through topic sections; ākonga have the option to read, listen, watch, interact, research, or test their learning at each step of their learning journey.

To create an effective online learning environment, kaiako have developed a consistent Moodle template across all four courses, as Figure 1 shows. Content patterns and visual cues, including icons and headings, help reduce cognitive load for ākonga, following the guidelines suggested by Mayer (2009).

A familiar, consistent, well-signposted learning environment supports learner engagement. To enable this consistency across multiple courses and developers, a programme style guide was created and used during development. This style guide contains not only presentation information such as text hierarchy, icons, font size, and colour palettes, but also activity function, file naming conventions, and accessibility testing.

Microsoft Teams is used as the communication platform, hosting both asynchronous posts and synchronous hui. A general channel hosts programme communications, a kōrero, talking, channel is used for chats between ākonga, and each course has its own channel for course specific communications. The chat function provides ākonga and kaiako with a method of direct, private communication in a real-time messaging format. Forums, while a communication method, are used in Moodle primarily as a teaching tool.

The programme takes a pragmatic approach to technology provision, recognising that comprehensive access to all available tools is neither financially viable nor pedagogically necessary. All ākonga are provided with a Microsoft enterprise license during their studies, which includes access to Copilot and OneDrive. A Moodle sandpit is also provided during the course. Many free applications such as Miro, Padlet, Canva, and ChatGPT are also used.

Timetable

The programme runs for 38 weeks, starting in February each year with a two-week orientation. The course *Learning Theories* and *Learning Design* (LT4LD) runs for the entire 38 weeks. *Management of Learning Design Projects* (MLDP), *Learning Technologies for Learning Design* (LTech), and *Visual Communication for Learning Design* (VCLD) run sequentially and are each 12 weeks long, as Figure 2 illustrates.

PART-TIME ONE YEAR:
Postgraduate Certificate in Learning Design
Schedule and assessments

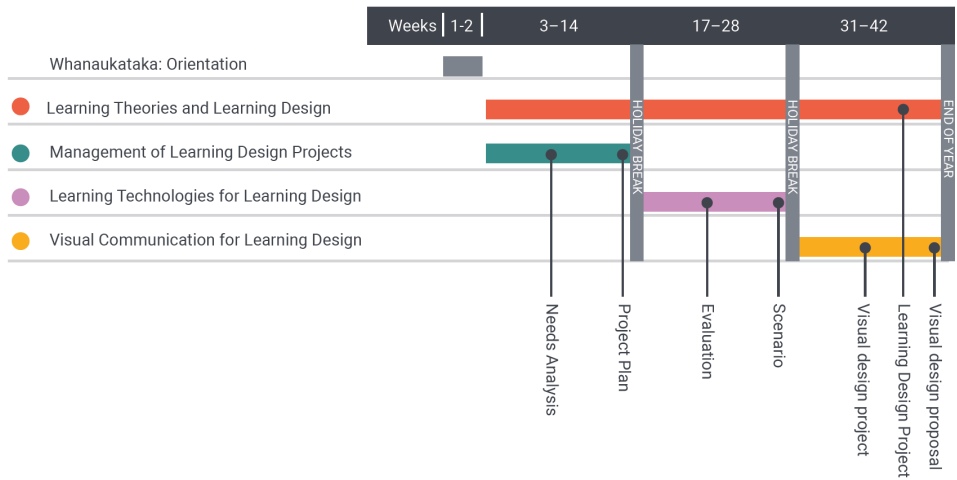


Figure 2: Course structure diagram and assessment sequence

The rationale for LT&LD spanning the full period is to ensure the theoretical concepts align with, and prepare ākonga for, engaging with the necessary knowledge in concurrence with each of the three other consecutive courses. The design of the programme is a convergent approach: it begins with an overview of the models and theories, then moves into more detail as ākonga progress through each course, culminating in the opportunity to apply all content within their own context to an assessment task.

Ākonga spend up to 20 hours a week on their study, as appropriate for a 60-credit programme of this length. A comprehensive schedule guides ākonga through their weekly activities. Each course clearly outlines when synchronous sessions are scheduled, to allow ākonga to plan their time so that they may attend. Synchronous sessions generally run for an hour and a half; these sessions are recorded, so that those who are unable to attend may still catch up in their own time.

Assessment

PGCLD L8 assessment tasks are designed to be authentic and industry relevant. Ākonga are tasked with identifying their own project to work on throughout the year, encouraging mana motuhake,⁴⁴ autonomy and self-determination.

⁴⁴ Separate identity, autonomy, self-government, self-determination, independence, sovereignty, authority - mana (prestige, authority, control, power, influence, status, spiritual power, charisma) through self-determination and control over one's own destiny.

The assessment tasks and rubrics for the PGCLD L8 were designed by the programme team. One of the VCLD assessments was co-designed with a communication design lecturer. The assessments were pre-moderated by members of TAA, who evaluated the technical accuracy of the assessments and learning outcome coverage, and checked that each assessment was at the appropriate level and aligned with the learning outcomes and Graduate Profile Outcomes (GPOs).

Each course differs in the types of assessment and their percentage weights. All the assessments are criterion-referenced, and all are cumulative:

- LT4LD: Blueprint 50%, Portfolio 50%
- MLDP: Needs Analysis 50%, Project Plan 50%
- LTech: Evaluation 30%, Scenario assignment 70%
- VCLD: Project 40%, Proposal 60%.

Assessments in each course are stair-cased and dovetail into each other, which reflects the steps and processes in an authentic learning design project. In MLDP, ākongā prepare the foundations of their year-long project, focussing on learning design project management. Ākongā integrate Instructional Systems Design (ISD) frameworks with project management principles, creating a needs analysis and a project plan. In LTLD, they critically evaluate and apply learning theories, information processing theories, and instructional design models and strategies in relation to designing learning experiences, to inform their project. In LTech, they focus on evaluating and selecting learning technologies and their pedagogical approach to determine how they enhance learning. Finally, in VCLD, the focus is on visual design communication. Ākongā examine the graphic design principles in relation to multimedia principles and apply the concepts in learning artefacts and a visual design proposal. Some of the assessments provide ākongā with options on format, for example a narrated PowerPoint or an illustrated written document can be submitted for the VCLD proposal.

The programme also supports ākongā in writing their assessments in Te Reo Māori, the indigenous language of Aotearoa New Zealand. Ako reciprocity informs the design of formative tasks, including Milestones activities, carefully designed and scaffolded to ensure ākongā have the knowledge and skills to complete each part of an assessment task, in LT4LD and VCLD. Integral to these activities are opportunities for feedback and sharing of knowledge, so ākongā and kaiako can learn with and from both peers and each other.

Institutional ākongā success services

Online learning success hinges on strong ākongā support. As in any other programme at Otago Polytechnic, the PGCLD L8 is required to comply with the *Education (Pastoral Care of Tertiary and International Leaders) Code of Practice 2021* (New Zealand Ministry of Education, 2021). A deliberate effort of manaakitaka is made to surround all ākongā

with multiple layers of support. The resources available to ākonga can be identified under four categories: technical, academic, wellbeing, and social support.

The online Whanaukataka orientation module walks ākonga through some of the support services available as a first introduction. This module introduces the online learning environment and learning tools, providing hands-on guidance for navigation. It also introduces the Student Support Te Ama Tauira website (SSTAT) and guides ākonga through an interactive exploration to familiarise themselves with the available resources and methods to contact advisors and book support services.

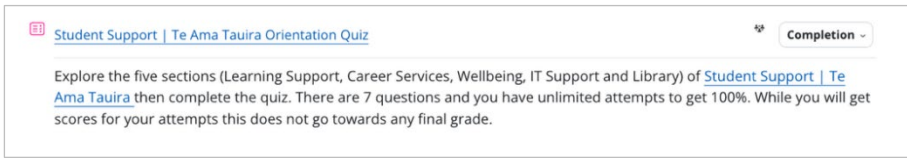


Figure 3: Example of an orientation task

The SSTAT website serves as the central support hub for learning support, Career Services, Wellbeing, IT support, and library services. It also houses information relevant to the diverse ākonga community.

For technical support, IT Service Desk staff are available to all ākonga via phone, email, and Teams seven days a week. In the second week of the programme, a synchronous technical support session is held to make sure that all ākonga can access the various tools and websites needed for the rest of the programme. One-on-one support is also available for tricky technical issues. As mentioned previously, extra optional synchronous sessions are held during the LT4LD course to build capability in learning technologies and tools.

The Student Success Learning Advisors team offers one-on-one academic support via Teams to distance ākonga. An online booking system allows ākonga to make appointments to suit their schedules. Learning advisors support ākonga with research, writing, critical thinking, referencing, grammar, and other areas. Studiosity, an after-hours academic writing support tool which gives personalised feedback on written submissions, is also available. Before the first assessment is due, a learning advisor runs a synchronous session on critical writing skills to prepare ākonga for the assessment expectations of a Level 8 course, and another such tailored session is run for ākonga during the second semester. Otago Polytechnic librarians are available via chat, phone, and email to support ākonga through the home delivery service, as well as with article and book chapter requests. The Career Service team are also always available for one-on-one support.

Ākonga have access to manaakitaka⁴⁵ and wellbeing support in the form of Wellbeing Advisors and the counselling team at Student Success. Online counselling can be self-booked through the website to suit ākonga schedules and needs. Referrals from kaiako can also prompt wellbeing advisors to directly contact ākonga. In addition to all of these, a hardship fund is managed and allocated through Student Success for ākonga experiencing financial hardships.

Online learning can be isolating, and nurturing whanaukataka is therefore important to the PGCLD L8. The programme team provides a channel specifically for kōrero⁴⁶ in Teams to promote social engagement and support. The Whanaukataka module is specifically designed to support the formation of a community of learning through shared personal information and experience. Kaiako strongly encourage ākonga to form study groups. Depending on the cohort, these groups meet regularly and support each other towards specific tasks.

Constraints

There are constraints and contextual factors which present ongoing challenges, as well as opportunities, for the delivery of the PGCLD L8.

At the macro level, the main issue affecting the design of the programme is the lack of agreed-upon professional standards that learning designers should hold. As a result, the learning outcomes of the programme courses are subject to continuous review. It is important to note, however, that the lack of consistent professional standards offers a potential opportunity for the programme; as the highest-level programme in learning design in Aotearoa New Zealand, it can lead by example and set those standards, in collaboration with industry, which is done through the close collaboration of the programme with its Permanent External Advisory Committee (PEAC).

At the meso level, the programme had been originally designed under an institutional directive from Otago Polytechnic that all courses should be of a size of 15 credits, which manifests in 150 learning hours per course for ākonga. This standardisation of course size has created constraints for the programme design, requiring different areas of knowledge and practice to fit the same dimensions of learning space.

Additionally, the current structure of the programme organises the academic year into three trimesters of twelve weeks each, rather than the usual four-term calendar used for most programmes at Otago Polytechnic. This inconsistency between the polytechnic

⁴⁵ Manaakitanga, Kai Tahu dialect.

⁴⁶ Speech, narrative, story, news, account, discussion, conversation, discourse, statement, information.

and schools' timetable contributes to occasional confusion from ākonga, especially those employed in the education system.

On the side of institutional benefits, however, a strong source of support for the programme development and delivery comes from Otago Polytechnic's Kaitohutohu office, the official representative of mana whenua. The programme continuously enhances its engagement with Te Ao Māori,⁴⁷ the Māori world, through its partnership with its PEAC; consultation with the Kaitohutohu office; and its practice of ako. Recently, the programme had its first ākonga submitting most of their assessments in Te Reo Māori, also a first for Otago Polytechnic.

At the micro level, the programme, as mentioned above, is the responsibility of members of Te Ama Ako | Learning and Teaching Development at Otago Polytechnic. The members of Te Ama Ako are classified as non-teaching academics. As such, the programme facilitators are not entitled to discretionary leave, which academic staff in other programmes normally use to promote their research work and can use for leave in lieu for after-hours work. While this status presents challenges of time management, alongside the role of Learning and Teaching Specialists, which each of the team members performs, it allows the facilitators to be well-versed in teaching practice across all taught programmes and disciplines at Otago Polytechnic, enabling them to apply best practice in their teaching.

Evaluation

In the first two years of delivery, 28 ākonga have completed the programme and have moved on to establish a learning design community of practice across Aotearoa New Zealand.

The PGCLD L8 team continuously collect feedback from learners on their teaching, on the different courses, and on the programme as a whole. This feedback is collected through the institution as well as programme-driven data collection:

- Course evaluation feedback surveys are sent to ākonga at the end of each course. The feedback is used for ongoing improvement of the courses, both in structure and content.
- Teaching evaluation surveys are sent to ākonga at the initiative of each kaiako on the programme. The collected feedback is used for the facilitators' professional development and improvement of their teaching practice.
- Interim programme feedback is sent by the programme team directly to all ākonga via Microsoft Forms. This feedback is collected mid-year and is used as formative feedback by kaiako.

⁴⁷ Māori worldview and culture.

- A focus group is held at the end of each year, facilitated by a member of Te Ama Ako who is not a teacher of the programme.
- Graduate destination surveys are sent to the programme alumni, collecting both information on their professional progression after their graduation from the programme and feedback about their experience of the programme in a broader perspective of time.

The collected feedback is analysed and discussed, and steps taken to address it are then communicated to all ākonga both in direct communication and via the programme Moodle page.

On the issues for improvement the two main repeating topics were high workload, and the requirement from ākonga to divide their attention between several courses. To address the latter point, the programme was restructured after the first year of delivery to allow only two courses to be delivered in parallel (see Figure 2). As for the former issue of workload, the team is continuously reviewing the contents to find a balance between reasonable workload and maintaining a high professional standard. Additionally, the programme team supports ākonga in requesting study leave from their workplaces.

In addition to feedback received from ākonga, the programme team has identified a series of challenges, which it is continuously working towards meeting:

- Does the work-based project risk disadvantaging ākonga who are not working in relevant roles, in comparison with ākonga who can use work they are doing in their job towards their assessment requirements? How can kaiako respond to that risk?
- What happens when the blended learning breaks down? How can kaiako still teach ākonga who attend hui without completing the self-paced work or who stick only to Moodle, not attending online hui or watching their recordings?
- Could monitoring completion data create concerns about surveillance among ākonga? How should kaiako balance care with ākonga autonomy?
- How much additional time does responsive, data-informed facilitation require compared to traditional delivery methods?

Future directions for the programme, which are currently being discussed, include offering it on a two-year pathway, and as a series of stackable micro-credentials.

Acknowledgement

The authors would like to thank Megan Kitching for her invaluable support in copy editing this chapter.

Editor's notes:

There is a lot of care involved in designing a thorough blended learning model. In this case study we can see a host of embedded good practice, designed to reflect the needs of busy, distance-based ākonga. The model clearly has a broad reach, however the 28 graduates over two years implies a small cohort group; perhaps the limitations of credit size (15 credits) and cohort-based semesterisation present barriers. A point for reflection is how the model might need to adapt, should cohorts become more open and ākonga numbers increase; what would change? Is the model scalable, and what would happen if provision became more available from an ākonga perspective?

It is also telling that the kaiako are 'non-teaching academics,' with responsibilities outside of the PGCLD L8 programme. This enables them to be practitioners also sharing their expertise across Otago Polytechnic; however, it comes at the cost of them not gaining dedicated discretionary leave allowances available to academic staff.

There is an intensity here of kaiako activity that reflects the strong values of Otago Polytechnic, the rigours required of Level 8 education, the reciprocal nature of ako, and the dynamic nature of the discipline area. The combination of synchronous and asynchronous opportunities takes considerable effort, however the need to demonstrate good practice is noted; it's difficult for learning designers to not want others to appreciate what they are designing for other learning designers.

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⁴⁸ Student, pupil, apprentice, pattern, example, model, design, draft, sample, specimen, template, skilled person, cadet.

CASE STUDY MESO.3

Toi Ohomai: New Zealand Diploma in Supply Chain Management (Level 6)

August Du | Wen Luo

"Our experiences make clear that the effectiveness of blended learning hinges on thoughtful instructional design, alignment with student needs, and flexibility in implementation."

Context

The New Zealand Diploma in Supply Chain Management (Level 6) (SCM L6), a programme first delivered at Toi Ohomai in 2019, was intentionally designed as a blended model from its inception. The programme combines an intensive block teaching format (Dixon & O’Gorman, 2020; Kops, 2014) with online opportunities and scheduled face-to-face (F2F) seminars. Over time, the SCM L6 approach has proven adaptable, functioning successfully across distance learning and on-campus delivery.

The SCM L6 programme attracts a remarkably diverse group of ākonga, thanks in large part to the provisions of the blended model. Many of the domestic part-time ākonga are mature professionals seeking career progression in logistics, supply chain, or transport sectors. In contrast, international ākonga are often younger and unsettled, mostly adapting to new employment environments in New Zealand under their student visas. The programme also sees a significant cohort of Māori and Pacific learners, whose participation aligns with Toi Ohomai’s priority of equity and inclusion. Noticeably, ākonga are not limited to the traditional Toi Ohomai region of Bay of Plenty and South Waikato but also extend to remote rural areas in the far reaches of Aotearoa, and even from varied locations where military personnel undertake study while on duty. This broad participation profile underscores how the model’s flexibility is crucial for achieving the programme’s unique role in vocational education.

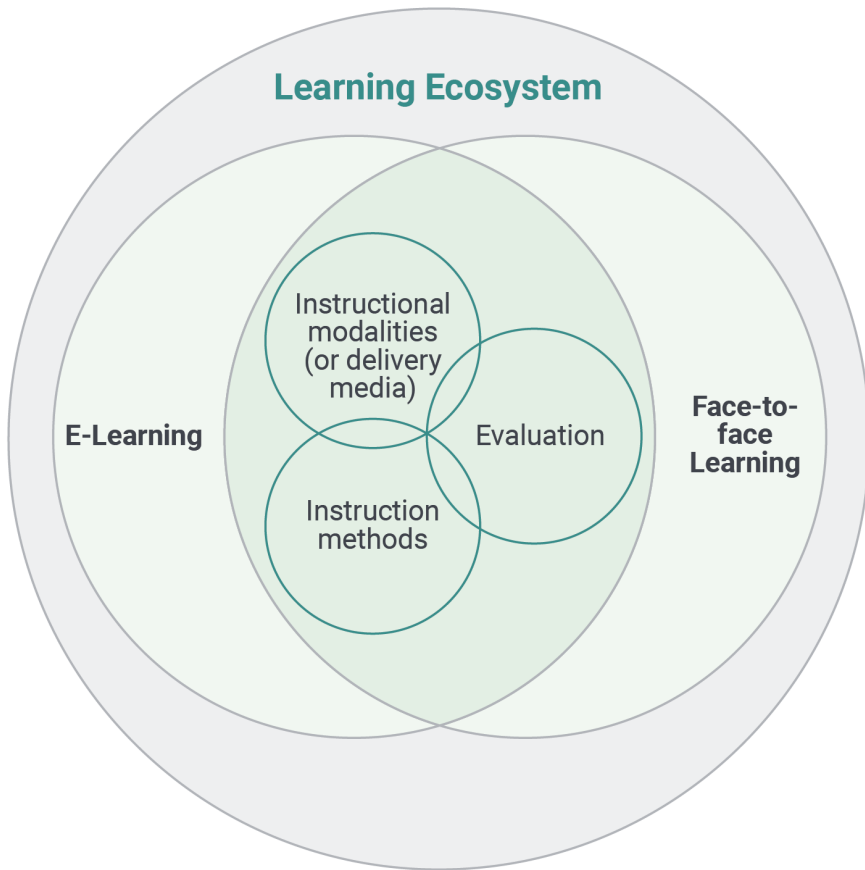


Figure 1: The Blended Learning Model Employed by SCM L6

As depicted in Figure 1, the blended model is built upon a learning ecosystem that reinforces the programme's commitment to serving community needs. The curriculum, shaped through kaimahi, industry partners, and ākonga, reflects a belief that effective vocational education should originate from, engage, and serve the community. At its core, this blended model comprises three interconnected elements: instructional modalities, instructional methods, and evaluation.

- Instructional modalities refer to the platforms and environments for learning (Tayebnik & Puteh, 2013), such as the Moodle learning management system (LMS) and supplementary channels including email, Microsoft Teams, and virtual conferencing.
- Instructional methods integrate online learning and in-person instruction with collaborative activities. To facilitate a more profound understanding, the model emphasises participatory and scaffolded learning. Participatory learning is fostered through online discussion forums, activity-based tasks with progress tracking,

evidence-based submissions (for example, reflections from work experience in a case study report), and case-driven activities. Scaffolded learning is systematically built into the curriculum; for instance, Moodle content is released in a structured sequence, guiding ākonga from foundational knowledge to more complex concepts. The digital scaffold is further reinforced by in-class or online seminars, where facilitators provide real-time clarification, model thinking processes, and offer personalised feedback to help ākonga build confidence and competence.

- Finally, evaluation is also a crucial component that involves monitoring ākonga engagement, learner feedback, teaching evaluations, and regular programme reviews, aligning with the Toi Ohomai Quality Management System (QMS).

The design of the blended model is well-suited for a niche programme such as SCM L6. With smaller cohort sizes, the SCM L6 approach allows for efficient management of small groups and the maintenance of a regular course offering schedule, which would be more challenging to sustain with a traditional, large-scale delivery model.

Description

Ākonga activity

Ākonga enrolled in the SCM L6 programme engage in a blended learning experience that combines online and face-to-face learning. The asynchronous part of the blended learning experience is the same for all ākonga. Their journey begins with an introduction to Moodle. Once ready, they then progress through the asynchronous Moodle modules that offer self-paced study through pre-recorded lectures, instructional videos, curated readings, case studies, curated links for further exploration, discussion boards, and interactive quizzes. Structured deadlines and regular check-ins ensure that ākonga maintain momentum. Participatory learning is central to this asynchronous component. Active participation in online discussion forums, reflective tasks, and applied case studies is integral, allowing learners to connect theoretical knowledge to their own workplace experiences. Collaboration is a key feature that is always promoted at the beginning; when an individual initiates a discussion thread, which is often centred on a case from their professional experience, others, including the kaiako, are encouraged to contribute. This results in an enriched, collective learning process. Over time, many ākonga come to appreciate the value of peer-to-peer learning, recognising it as a powerful dimension of their professional development.

The model uses a differentiated approach for synchronous delivery for domestic and international ākonga. Weekly live sessions are held on campus for international ākonga, and online for domestic students. For those domestic ākonga geographically dispersed across New Zealand, two weekly virtual sessions, not compulsory but highly recommended, are offered: one after work hours, and another during the day. This arrangement recognises that most domestic ākonga are employed full-time, making

evening engagement more practical. At the same time, the daytime option allows for optional participation during their breaks, leave, or when specific support is needed. In contrast, international ākonga, mostly full-time, must attend two (three hours each) weekly sessions on campus to meet attendance regulations.

Feedback from ākonga and industry partners highlights a clear preference for a model that allows learners to study theory online, while applying concepts in their real-world contexts. This approach tends to work well for domestic ākonga, who often have relevant workplace experiences to draw from. However, it challenges young international learners, many of whom have recently graduated from high school and just arrived from overseas, who are still adjusting to life in Aotearoa New Zealand. Without prior local work experience, these ākonga may initially feel uncertain about how to engage with the practical, work-based components of the programme. In response to this challenge, a fictitious company has been developed and woven into each course. This fictitious case simulates a business context, with background information and realistic scenarios, allowing not only international but also domestic ākonga to participate fully in discussions and assessments. By using shared case studies, the programme ensures that every learner has equitable access to applied learning opportunities, regardless of their employment circumstances and history.

Extracurricular opportunities such as site visits, guest speaker sessions, and relevant conferences are offered to enrich the learning experience as ākonga numbers and opportunity permit. While site visits are not compulsory and typically suit those locally available, they are organised when feasible. As an example, visits to local businesses were arranged when there was a large cohort of international ākonga in Tauranga. Additionally, guest speakers from industry and professional circles present in person or online, with schedules shared across the department to encourage broader participation. In any given course, at least one guest speaker would provide on-site and streamed presentations. Due to the smaller class sizes, these events are normally coordinated with other programmes to maximise benefit. Information about relevant events from SCM organisations, such as the Centre for Supply Chain Management at Auckland University or The Chartered Institute of Logistics and Transport (CILT), is also posted on Moodle, allowing any interested ākonga to attend independently (some do, depending on the subject).

Kaiako activity

Within the blended model, kaiako carry out a range of interconnected and dynamic roles that extend beyond traditional teaching, acting as facilitators, mentors, designers, assessors, and motivators throughout the learning journey of ākonga.

One of the core responsibilities of kaiako is content delivery, carried out through their dual roles as facilitators and mentors. As facilitators, kaiako create a collaborative learning environment; as mentors, they guide ākonga to apply theoretical knowledge to real-world contexts. This dual role involves actively engaging with ākonga in both asynchronous

spaces, where they track participation and foster discussions, and in face-to-face settings, where they engage in scaffolded learning. Kaiako seek to be proactive and act preemptively when issues arise, such as noticing when one ākonga serving in the military becomes temporarily disengaged due to service obligations and may miss a deadline without requesting an extension. Through ongoing monitoring, comparable to roll call in a traditional classroom, kaiako can identify such outliers early and offer timely support or solutions.

Beyond delivery, kaiako are also responsible for the design and continuous refinement of course materials. This involves regularly updating digital content, curating relevant resources, and adapting materials in response to learner feedback and shifts in industry demands. Given the dynamic nature of the supply chain sector, where global events have immediate and far-reaching impacts, there is no shortage of current material to integrate into the programme. Unlike some courses where the same presentation might be reused for several years, the fast-paced, evolving supply chain management landscape requires constant vigilance.

Kaiako also serve as multifaceted assessors, not only marking assignments and providing constructive feedback, but also gathering insights through informal conversations and anonymous surveys to refine their teaching strategies. The feedback they provide on submissions helps ākonga achieve a deeper understanding and continuous improvement.

Finally, kaiako are crucial motivators, particularly given that ākonga often need to balance studies with work and personal life. Motivating learners under such circumstances requires more than encouragement; it demands a deep understanding of individual circumstances, timely check-ins, and personalised support. Kaiako use positive reinforcement, acknowledge small achievements, and encourage peer-to-peer recognition within online forums and class discussions to help build a strong learning atmosphere. When motivation dips, kaiako step in with empathetic outreach, reminders of progress made, and practical strategies to regain momentum. By recognising both the academic and emotional aspects of learning, kaiako help ākonga stay focused, resilient, and connected to their learning journey.

Resources

The programme's resources are designed to support a blended learning environment by providing both online and in-person materials. There are no compulsory textbooks.

The core of the online learning experience is a set of self-paced digital courses hosted on Moodle, updated over the years. These Moodle courses include pre-recorded lectures, instructional videos (some from third parties), reading materials, curated links for further exploration, quizzes, and discussion boards. Moodle provides a one-stop learning platform that encourages interaction with the materials and among the learners, with the aim of fostering a collaborative environment. Each course is accompanied by a reference

list, guiding learners to sources and additional materials for further reading. Specifically, learning resources are purposely developed to be accessible across various devices, ensuring that ākongā can engage with learning materials regardless of their physical location or available technology. For example, ākongā can read the lessons on their phones while waiting for buses, or they can use their computers at home when they find themselves with some quiet time.

To support blended learning, extra seminar materials are provided during face-to-face sessions, including slide decks, practical exercises, and role-play activities designed to reinforce key concepts through practical application. While these materials often align with the structure and themes of the Moodle content, they are not identical. Instead, they build upon the digital modules by offering additional interactive elements tailored by kaiako for in-person learning. This complementary approach enhances learning outcomes, particularly for international ākongā who are required to attend in-person sessions. For domestic learners who may not be able to attend seminars, these materials are also uploaded to Moodle to ensure they remain connected to the course content.

Real-world case studies and simulations are embedded throughout the programme to bridge theory and practice. A key example is the fictitious company that replicates the operations of a local dairy firm, offering a relatable scenario for learners (especially those without industry experience). Additional cases, such as the Gnome Experiment (Haymarket Media Group, 2013), are introduced for specific topics like strategic communication. Interactive simulation tools, such as the Beer Game (Thompson & Badizadegan, 2015), are used to explore complex concepts like the bullwhip effect (Lee et al., 1997).

Timetable

SCM L6 is structured over a 36-week academic year, split across two semesters. The programme comprises eight 15 credit courses, each offered in a block mode format. Full-time ākongā complete one course per month over a four-week period, while part-time ākongā are given a more flexible eight-week period to complete each course (see Figure 2). There is no prescribed order between courses. Courses are offered cyclically, and if a student misses a course, they will have to wait for the next available slot.

The total expected engagement for each course is 150 hours. This is broken down into 60 hours of directed learning, which includes online discussions, seminars, scheduled workshops, pre-recorded lectures, and instructional videos. The rest are 90 hours of self-directed activities, such as independent reading and research, assessment preparation, and participation in interactive quizzes.

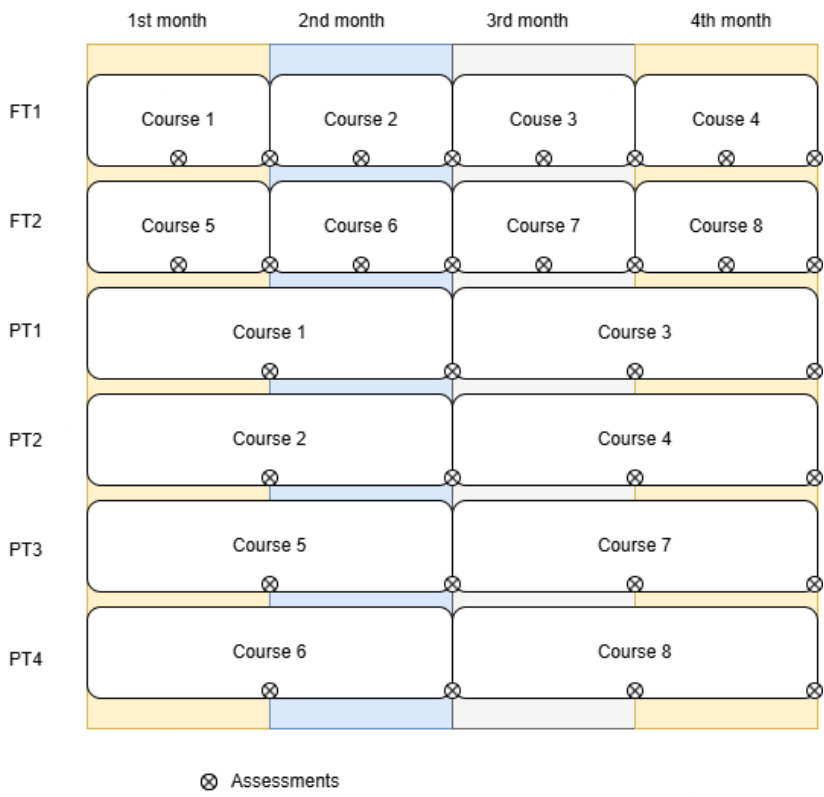


Figure 2: Block delivery of eight courses in a term

The delivery schedule is designed to be highly flexible and accessible. There are six variations of the intakes available each semester: first term full-time (FT1), second term full-time (FT2), first term part-time (PT1), second term part-time (PT2), third term part-time (PT3), and fourth term part-time (PT4). Ākonga can start their journey at least twice a year in any available courses. Given that SCM is a niche programme with smaller cohort sizes, the model works well for managing small groups and maintaining regular course offerings. An additional option is a summer school running between November and February, allowing learners to make productive use of their holiday time. However, this option has only been trialled briefly in 2014-2015, and is contingent on sufficient enrolment to be viable.

Final results and awards are confirmed and issued at the end of each semester.

Assessment

As illustrated in Figure 2, there are two achievement-based assessment episodes for each course. The assessments, which may include case study reports, investigative analysis, or scenario analysis, are designed to develop practical, applied skills against real-world

supply chain challenges and propose informed solutions. To pass and receive credit, ākonga must submit both assessment tasks and achieve a minimum of 50%.

Each course includes a dedicated assessment section that outlines task requirements, relevant learning outcomes, word counts, detailed briefings, formatting and submission instructions, and marking rubrics. All submissions are marked against these rubrics, with kaiako providing constructive feedback to guide further improvements.

A key feature of the assessments is the encouragement for ākonga to draw on both course content and their own professional experiences, which often results in highly individualised submissions. For kaiako, reading these personalised reflections is often one of the most rewarding aspects of assessment. As mentioned earlier, a detailed fictitious company case is provided for ākonga who may lack relevant work experience, such as new international ākonga. These learners are guided to approach the scenario from the viewpoint of a supply chain manager, allowing them to apply theoretical knowledge in a realistic context. However, the continued use of the same fictitious case study presents risks related to academic misconduct. Several preventive strategies are employed to mitigate this challenge, including integrating plagiarism detection tools (Turnitin) and periodically adjusting assessment content, such as rephrasing questions or altering data sets. Turnitin is embedded within Moodle and accessible to ākonga prior to submission, enabling them to review similarity reports. Kaiako also refer to these reports during marking to detect any potential issues early and uphold academic integrity.

A robust moderation process underpins the assessment system, ensuring both quality and alignment with national standards. All new assessments undergo internal moderation before implementation, while post-assessment moderation confirms that tasks appropriately assess intended learning outcomes and that marking is applied consistently. All courses are reviewed internally and externally over a three-year cycle. Moderation planning is informed by learner feedback, recent changes to assessments, external review recommendations, and any identified risks to programme quality.

Institutional ākonga success services

Toi Ohomai provides comprehensive support services to help ākonga succeed academically, personally, and professionally.

Academic support is offered through various channels, including workshops on essential skills like writing, referencing, time management, and research. Learning advisors provide one-on-one academic skills coaching, which is particularly valuable for mature ākonga returning to study. Library services offer access to specialist librarians who assist with research and database use, along with tailored information literacy sessions. A suite of digital resources is also available, including access to Microsoft Office 365 ProPlus and extensive online library services with academic databases and industry periodicals. In addition to all of these options, a programme area for SCM L6 is available in Moodle,

which includes instructional videos and guides to help ākonga navigate the digital platforms and enhance their academic skills. Resources such as writing tips, referencing guidance, and research support are readily available in the programme area to strengthen both academic performance and digital literacy.

Beyond academics, the institution prioritises well-being and pastoral care. Counselling and mental health services are available, as are Māori and Pacific support advisors who provide culturally responsive mentoring to guide learners through study, life, and career planning. Finally, dedicated career services provide sector-specific support, including workshops and personalised advice on CVs, interviews, and employment pathways in logistics and supply chain management.

SCM L6 is part of a broader logistics portfolio ecosystem at Toi Ohomai, which includes Commercial Road Transport (HVO) (Level 3), Distribution (Level 3), International Freight Logistics (Level 5), and Supply Chain Management (Levels 5 and 6). Ākonga across these programmes work collaboratively as if they were part of a real logistics organisation. A dedicated warehouse serves as the central hub, enabling learners from different levels and programmes to engage in practical, integrated learning. In this simulated business environment, Level 3 ākonga take on roles such as drivers; Level 5 ākonga serve as operators; and Level 6 ākonga act as managers. Goods are regularly transported between the warehouse and the Waipa campus, bringing authenticity to the learning experience. This structure also creates a natural progression pathway, allowing learners to move from Level 3 through to Level 6, building a strong, interconnected learning community that mirrors real industry operations.

Constraints

While the blended learning model provides flexibility, it also faces several challenges across macro, meso, and micro levels.

At the macro level of system and funding challenges the SCM L6 programme is affected by limited market demand, which creates institutional pressure to meet volume-based enrolment targets. This challenge can detract the programme from the long-term quality improvements necessary for a sustainable and effective blended delivery model. New Zealand's economy, dominated by small and medium-sized enterprises, offers a narrower pool of prospective learners. The programme experienced notable growth between 2019 and 2021, primarily driven by favourable international education policies and targeted marketing efforts. However, enrolments declined sharply post-pandemic, highlighting its modest scale and reliance on international enrolments.

The blended delivery model for SCM L6 encounters several meso level (organisational) challenges as well. While it offers greater flexibility and access for learners, sustaining its

effectiveness requires consistent leadership support, robust institutional systems, and strategic alignment. In recent years, however, financial constraints have diminished the flexibility that once made the model attractive, and visible institutional endorsement has declined. A further challenge lies in the withdrawal of a clearly defined programme pathway. The closure of the logistics centre and the termination of other programmes destroyed the model's ecosystem. In addition, existing administrative systems present persistent barriers; processes such as enrolment, attendance tracking, and ākonga reporting remain primarily configured for single-mode delivery, and so lack the adaptability needed to support the blended format described in this chapter.

Regarding scalability, the SCM L6 programme has experienced both enrolment and staffing fluctuations. At its peak, three kaiako were assigned to manage different cohorts; two were focused on FT1 and FT2 international ākonga, while the other oversaw the domestic group. As enrolments declined, the teaching team was scaled down accordingly, eventually leaving only one kaiako to manage the entire programme. This remaining kaiako has also taken on supervision responsibilities in the postgraduate programme, which further stretches their capacity. The flexibility of the blended model becomes non-viable under these circumstances.

At the micro (teaching and learning) level, this blended delivery model introduces several challenges that can affect learner engagement and success. Even with careful screening, ākonga with limited digital literacy or unreliable access to devices and the internet may struggle to meet the demands of self-directed learning, as noted by Muhria et al. (2023). While asynchronous components offer flexibility, they can also lead to disengagement if ākonga do not feel meaningfully connected to their kaiako or peers. As kaiako, the authors do not want to see high dropout rates; so, learner progress is actively monitored and interventions are in place to sustain ākonga motivation, activities that often require additional effort beyond regular teaching hours. Building and maintaining a strong sense of community and belonging in blended settings is not incidental. It must be intentionally cultivated and sustained, even when it involves extra or late work.

Through our exploration of this blended model, the authors have repeatedly asked, 'How blended can it be?' This question has been especially relevant in the context of young international ākonga, whose expectations and needs differ from those of domestic learners. From experience, one two-hour session per week serves domestic ākonga well, and two weekly face-to-face sessions of three hours work best for young international ākonga. Domestic ākonga are often busy, and most of them can study independently (though some prefer face-to-face sessions). International ākonga, though, respond more positively to two three-hour face-to-face weekly sessions and engage better with materials, attend workshops and site visits, and take advantage of academic support services such as learning advisors. However, lessons are learnt from the delivery shift to online classes during the pandemic. Many young international ākonga faced unreliable internet

connections, limited device access, and distracting home environments. Some were also reluctant to use webcams, contributing to disconnection and reduced overall engagement.

The authors' experiences make clear that the effectiveness of blended learning hinges on thoughtful instructional design (prepared by the kaiako), alignment with student needs, and flexibility in implementation. For domestic ākonga, the timing of delivery is another important consideration. After-hours sessions on weekdays are more effective than weekends, offering greater convenience and accessibility. However, even with these arrangements, only a small percentage of ākonga regularly participate in online tutorials. This inconsistency may reflect personal learning preferences; some ākonga thrive through verbal interaction, while others prefer the independence and flexibility of self-paced study.

Kaiako workload presents a significant challenge, particularly in the SCM programme with small cohorts and multiple courses to deliver. Sometimes, a single kaiako has been responsible for teaching four different courses within one week. While ākonga numbers may be low, the workload remains substantial and can be just as demanding as teaching a large class. In comparing block-mode delivery with the more traditional semesterised model of spreading courses across a term, ākonga feedback shows preference for the focus and agility of shortened, time-intensive block-mode courses, whereas longer delivery spans are less favoured and often result in decreased engagement.

Evaluation

Despite the model's current challenges, ākonga feedback on the blended model has generally been positive. Many learners have emphasised the model's flexibility, which enables them to balance their studies with work and personal responsibilities. Domestic ākonga who regularly attend in-person seminars share comparable feedback, while others expressed appreciation for the autonomy and flexibility that self-paced learning provided. International ākonga particularly value the combination of online modules and face-to-face seminars, noting that this format helps them connect theoretical learning with real-world logistics and supply chain scenarios. They also highlighted the practical nature of the assessments and the timely support provided by kaiako through digital channels.

This comment is typical:

Just wanted to reach out and thank you for your guidance and advice over the last two years as I have worked my way through the eight topics that have made up the Diploma in Supply Chain Management. I have learned a lot and have certainly appreciated your feedback across this period... I have really enjoyed the course material and what I have learned through the programme of work.

Course results reflect a promising pattern. Completion rates for SCM L6 have remained steady at around 80%, demonstrating that the blended model effectively supports ākonga engagement despite competing demands.

Building on both the positive outcomes and constructive feedback gathered so far, several strategies are being developed to strengthen and expand the blended delivery model for the SCM L6 programme. One key direction is the expansion of market reach, moving beyond the domestic student base to target international learners. As Aotearoa New Zealand reopens to the global education market, the flexibility of the SCM L6 programme may gain further traction; it is an ideal candidate for internationalisation. Simultaneously, there is significant potential to deepen connections within New Zealand by partnering with major organisations such as the NZ Army, NZ Police, and healthcare providers. These sectors have ongoing needs for logistics and supply chain expertise, and tailored partnerships could create custom-designed pathways or training options that align directly with workforce requirements. Such collaborations would boost the programme's industry relevance and ensure a steady stream of learners.

Programme redesign is also considered part of a broader effort to enhance credibility and graduate employability. The programme could be strengthened significantly by partnering with established international accreditation bodies such as the Chartered Institute of Logistics and Transportation (CILT, with 30,000 members in over 40 countries) or the Association for Supply Chain Management (ASCM, with 45,000 members in 100 countries). Accreditation by such organisations would signal quality, align the programme with international standards, and position SCM graduates more competitively in the global job market. Precedents could be found that some universities in New Zealand have already worked with the Chartered Institute of Procurement & Supply (CIPS) to accredit master's degrees and have successfully combined academic credentials with professional certifications such as the Member of the Chartered Institute of Procurement and Supply. A similar move for the SCM programme could achieve comparable results.

Even with growth in ākonga numbers, though, success cannot be sustained without investment in kaiako professional development. Training in digital pedagogy, effective assessment design, and learner engagement strategies specific to blended environments are all ongoing areas for growth. This professional support will ensure educators are equipped to deliver the curriculum effectively and adapt to the evolving needs of both learners and the industry.

Editor's notes:

The blended model for SCM L6 is very ambitious, and its results are impressive. It relies on hard-working, highly focused kaiako whose dedication is clear from the case study. While innovative and well-

developed as a model, it is clear that its future is somewhat bumpy; incompatible institutional systems (enrolment, attendance tracking, ākonga reporting are mentioned) and reliance on a solid ākonga-base leave us with the impression that the model may be subject to substantial revision.

Reading from the perspective of a potential ākonga, this is how a programme ought to be offered. Flexibility, engagement with industry contexts (even if simulated), and a variety of complementary engagement options present a compelling offering.

Returning again to matters of scale, it is interesting to note the value of a programme ecosystem as mentioned in the case. Multiple courses in the same general discipline area bring about a critical mass of ākonga and kaiako, both of which combine to make generous blended learning opportunities viable.

There seem to be three important dynamics at play here: the enthusiasm of the kaiako (authors) in this case, who are no doubt behind the model's success; ākonga numbers, which are difficult and variable (even declining) given local demand; and perseverance against those institutional contexts that hinder the model's smooth functioning. The model is complex, and so its future will rely on each of these three factors finding an equilibrium.

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Case studies:

THE MICRO LEVEL

CASE STUDY MICRO.1

Whitireia & WelTec: Blended teaching for first-year programming

Minjie Hu

“The proverb ‘give someone a fish...’ reminds us that even AI can generate a full program directly (i.e. offering the fish), it is important for educators to teach students how to read and write a program (learning to fish).”

Context

Computer programming is one of the core courses for first-year ākonga studying the Whitireia & WelTec Bachelor of Information Technology. Computer programming involves developing a set of step-by-step commands to a computer for it to process data into an expected outcome. Programming involves applying the procedural knowledge of logical design, implementation, and debugging, which are built on multiple skills including problem-solving and reading and comprehending the existing program.

Although generative artificial intelligence (GenAI) tools are now powerful to generate program code, OpenAI chairman Bret Taylor advocated that study computer science degree to foster ‘systems thinking’ for product development, which cannot be replaced by GenAI (Chandonnet, 2025). Microsoft founder Bill Gates has also stated that GenAI tools can enhance programming but cannot replace human (Okemwa, 2025).

Teaching programming is always thought to be a hard challenge. Although many efforts have been made to improve the teaching of programming across many decades, students still tend to be anxious and try to avoid programming as much as ever (Hu et al. 2021a). The proverb ‘give someone a fish...’⁴⁹ reminds us that while GenAI can generate a full program directly, offering the fish, it is important for kaiako to teach ākonga how to read, interpret, and write a program, learning to fish! This chapter,

⁴⁹ The proverb ‘give someone a fish and you feed him for a day; teach them to fish and you feed them for a lifetime’ likely has ancient but uncertain origins.

different from the other case studies in this book, focuses on a model of blended learning used for teaching first-year programming.

The blended learning method considered here combines traditional face-to-face teaching and online learning in an ākonga-centred way toward personalised learning (Hu et al, 2021b). Blended learning in general is considered a pathway towards personalised learning in terms of what, when, and how to learn, so it is essential to offer ākonga more self-control. To engage ākonga, it is critical to provide them with automated feedback for enhancing their motivation and involvement. In-person interaction also plays an important role in flexibility, by supporting diverse learning preferences. In the current age of GenAI, the blended learning method for teaching first-year programming at Whitreia & WelTec includes three components: automated feedback, pastoral care, and GenAI tools (Figure 1).

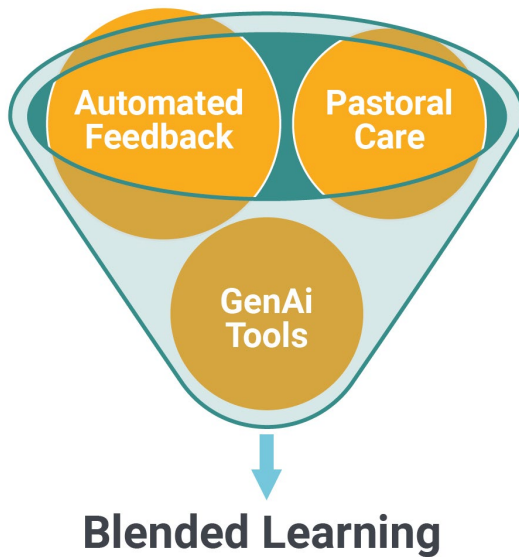


Figure 1: Blended learning method for teaching first-year programming

The core goal of the blended learning model is to create a more ākonga-centred and personalised learning experience. Automated feedback motivates and engages ākonga throughout their learning path. Pastoral care must be present to support ākonga from various backgrounds with different learning preferences. Finally, the Gen AI tools component provides guidance to first-year ākonga to assist them in using GenAI effectively and ethically. We will now consider these three components in turn.

Automated Feedback

According to cognitive load theory (Van Merriënboer & Sweller, 2005), the human brain has limited capacity in working memory for thinking, reasoning, and judgment. Only a limited amount of information can be handled at the same time, and it is easily lost if working memory is overloaded. Following this theory, a significant study (Hu et al, 2021a) on the mental effort ākonga must apply in introductory programming courses suggested that any failure could be traced to them spending large amounts of their cognitive resources not only on learning concepts and understanding problem statements, but on additionally having to learn the syntax of a computer language in an unfamiliar programming environment.

Giving ākonga the ability to automatically observe the data flow in each step of a program lightens cognitive load and provides ākonga the ability to self-control their learning pace. By monitoring the entire programme process in real-time, ākonga are able to dynamically adjust their learning strategies.

In the blended model for first-year programming at Whitireia & WelTec, an automated flowchart is provided to ākonga to scaffold the logic of program design. This visualisation of both flowchart and program code are important components of the pedagogy of the introductory programming blended model.

Visualisation-first

Software visualisation involves both program visualisation (PV) and algorithm visualisation (AV). PV focuses on the visualisation of details in code and data, while AV provides a high-level description of the algorithm in animation. Visualisation promotes mental models as a ‘paper computer’ might, showing the execution of code, variables, and results on separated papers. After generating the static visualisation showing code list, flowchart, and diagram, kaiako provide dynamic visualisation such that one-way presentations in video and PowerPoint slides become two-way interactive resources.

Program visualisation assists ākonga to develop their mental model of programming by seeing how a program runs and processes data. The first-year programming blended learning model uses a visual logic flowchart simulation tool (Crews & Murphy, 2009) to provide flowchart visualisation. The tool now used is based on one developed two decades ago, successfully used in VB.NET and C# programming education, which combined the utility of flowcharts and pseudocode with computer simulation. The flowchart can be executed step-by-step and will present observable variable values from where it starts. This provides immediate feedback to ākonga as to how each program statement affects variables.

Currently a free flowchart tool, Flowgorithm,⁵⁰ is widely used in teaching novice programming. It supports developing executable flowcharts and converts the flowchart into program code in more than 18 computer languages, including C#, C++, Java, JavaScript, Lua, Perl, Python, Ruby, Swift, VB.NET, and VBA.

Visualisation also assists in learning debugging, fixing errors in programs. Debugging is regarded as a fundamental skill for beginners in programming, and so a ‘debugging-first’ pedagogy is applied to reinforce the dual processes of automation and reasoning, alongside the development of enactive, iconic, and symbolic mental representations so important to programming. Debugging involves defining test cases and tracing code execution, which are best performed with a mental representation of the symbolic aspects of the notional machine. Existing debugging tools in the integrated development environment used for teaching, in this case Microsoft Visual Studio, are drawn upon to teach visualisation at the code level.

An example of the visualisation method

The example here is drawn from a course teaching C# programming for first-year ākonga. The course introduces the core concept of how variables function in a notional machine, including the basic process of input, process, and output, which manipulates and updates variables toward the solution. This introduction draws on a familiar domain, for example calculating wages when the pay rate is \$20 per hour, across 20 working hours. The teaching process is in two stages: a simple problem analysis whereby ākonga are asked to define the variables, their relationship, and the expected output; and an activity for ākonga to assemble a flowchart in Flowgorithm that they can run, in full and step-by-step, to test different cases involving different amounts for variables.

The result is an executable flowchart that can be used to visualise and confirm the accuracy of program design across both commands and data variables (see Figure 2).

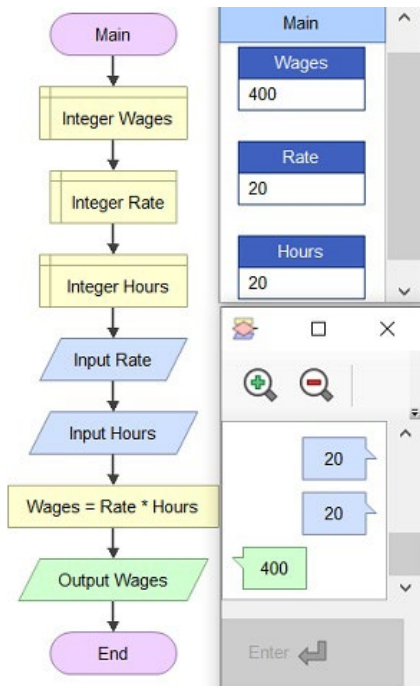


Figure 2: Example of visualization of both process and variables using Flowgorithm

⁵⁰ Flowgorithm - Flowchart Programming Language | <http://flowgorithm.org/>

After ākonga have been successful in their flowchart design, they move to prepare C# code using pseudocode in Microsoft Visual Studio as a transition to actual C# code. Again, clear step-by-step instructions are issued, beginning with steps for writing pseudocode based on their flowchart, then generating actual C# code before further adjusting the variables. Figure 3 shows an example of the Visual Studio interface.

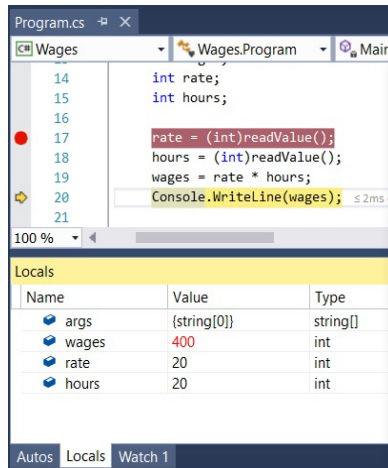


Figure 3: Example of visualization of code and variables using MS Visual Studio

In the first session, ākonga begin by learning problem-solving by focusing on variables and their relationships, based on the notional machine showing input, process, and output. They also learn how to prepare test cases and learn to desk-check. Ākonga next learn how to map their manual process into a flowchart, and how to test and visualise variables and processes step-by-step to enhance understanding. Thirdly, ākonga learn how to present their design in text-based pseudocode, followed by a transition from pseudocode to actual C# code, which is computer language. Finally, ākonga experience their first debugging for syntax errors and learn to test and visualise both code and variables. As supporting resources, video clips with lecture notes and lab instructions are provided along with sample solutions on Moodle.

Evaluation of the method

The approach described above is also applied to course coverage related to programming skills including selection, nested selection, and loops. The ‘visualisation-first’ approach was formally evaluated, the results demonstrating that learning based on ‘variable-oriented’ and ‘debugging-first’ through visualisation reduced cognitive load for novices (Hu et al., 2021a).

The factors identified that specifically impacted learning were course activities, exemplified by the example above, and the conventional video clips and sample

solutions; visualisation from flowcharts and debugging are important for supporting learning. The transition from step-by-step instructions, scaffolding from problem analysis to flowchart and visualisation, to pseudocode, then C# code generation followed by interaction with the actual code was highly successful.

The visualisation approach generates automated feedback, which enables ākongā to gradually develop core programming skills. The visualisation provides immediate feedback based on step-by-step design. The step-by-step approach, enriched by automated feedback from the Flowgorithm activity, encourages ākongā to learn at their own pace; whenever learning assistance might be requested it can be provided at the very step ākongā are wrestling with.

Pastoral Care

Pastoral care is essential in blended learning for supporting ākongā well-being and engagement, especially when they are learning online or self-learning at home. The *Education (Pastoral Care of Tertiary and International Leaders) Code of Practice 2021* (New Zealand Ministry of Education, 2021) ensures ākongā safety, inclusion, and voice. The legislation supports ākongā independence, wellbeing, and life transitions by insisting on the provision of cultural integration support, mental health services, and academic advice and support.

In support of the pastoral care requirements, and in recognition that ākongā come from diverse cultures and academic backgrounds, the Whitireia & WelTec blended model for first-year programming recognises ākongā have different learning preferences. Teaching strategies are adjusted to actively support these preferences, which are gleaned through conversation and observation (Hu et al. 2022).

Learning preferences apply to receiving, collecting, processing, and interpreting information on its journey to being transformed into knowledge. The frameworks of learning preferences have extended from the conventional VARK, Visual, Auditory, Reading Writing, Kinesthetic, to Multiple Intelligences that include Linguistic, Logical-Mathematical, Interpersonal, and Intrapersonal.

In Aotearoa New Zealand, indigenous Māori and Pacifica students are under-represented in tertiary education. Care must be taken to provide culturally relevant and supportive learning environments, which can significantly improve learning outcomes. Pastoral care must extend to the teaching strategies applied in blended learning to support various learning preferences and needs, alongside dedicated pastoral care and cultural support.

Teaching strategies

Whitireia & WelTec have a documented approach to supporting various learning styles, arranged to support VARK preferences while also supporting Logical, Interpersonal, and Intrapersonal styles. A framework of culturally supported teaching strategies in programming (Hu et al., 2022) informs the blended model for first-year programming, by ensuring teaching strategies address a broad selection of approaches that provide scope for learning preferences while also addressing cultural support and pastoral care.

Previous teaching experience shows some ākonga in the course have no computing background, so are frequently making computer language syntax errors. As part of our teaching approach to pastoral care, the approach we adopted to teach the integrated development environment (IDE) was deliberately designed to reduce the chance of syntax error for beginners. The top-level command structure of MS Visual Studio is used; it features an easy-to-use interface and offers an AI-powered whole-line feature to predict the next chunk of code.

A typical example of the pastoral care approach to teaching would consist of an activity with a clear phrasing of the learning environment and learning objectives, a reminder of previous learning strategies to apply, and various options for learning assistance that might include video clips, encouragement to revise using quizzes on Moodle, or working on sample prototypes. Mock tests are also provided for the course exam, and automated coding predictions are used to promote problem-solving and critical thinking.

Evaluation

The expanded teaching strategies of the blended model integrate both technologies and pedagogies. An evaluation of the model demonstrated that automated coding competitions, flowchart visualisation, and code visualisation. Automated coding competitions reinforce the reduction of syntax errors; flowchart visualisation dynamically demonstrates the algorithm of problem-solving, offering more than static presentation; code visualisation illustrates the process of control and data flows that affect variables. Ākonga also found solving problems with reference to a familiar knowledge domain; worked examples and test-driven development as specific methods; and the emphasis on cultural support and pastoral care as effective for their learning.

GenAI Tools

The emergence of GenAI tools including ChatGPT and Copilot challenges blended learning methodologies, particularly for how first-year programming is taught and assessed (Hu et al. 2023). The difficulty faced is mainly due to GenAI's ability to carry out various complex tasks, including generating and improving code, debugging code,

and providing comments and explanations. There is concern about the end of programming that involves humans. These developments have made it critical for us to further adjust teaching strategies for transitioning beginner programming to embrace the dawn of AI-generated code.

Amendments to teaching strategies

In order to leverage GenAI tools in teaching first-year programming, teaching strategies must be amended. Our strategy focuses on developing essential skills, from reading to writing programs from simple to complex, under the guideline of test-driven development.

The approach used in the course involves engaging with GenAI in three phases, based on a program initially developed with GenAI. Together, these steps encourage ākonga to critically engage with GenAI and better understand its contribution to coding.

In the first phase ākonga test the code using both black and white box testing, which involves considering inputs and outputs without reference to the underlying structure, followed by analysis of the code's structure and flow. At the close of this phase ākonga are asked to make an executable flowchart of the code to demonstrate understanding of its logic and variables.

The second phase challenges ākonga to generate their own GenAI prompt to replicate the code they analysed in the first phase. This might involve multiple attempts, which ākonga are encouraged to take in order to better understand the generation and reinforce the importance of the program's goal.

Finally, in phase three ākonga are asked to develop a complex program with the assistance of GenAI and apply a conventional divide-and-conquer strategy to divide the code generated into subprograms and apply previous strategies to reintegrate the subprograms back together. As a last step, the integrated program is tested and debugged.

At each phase of the activity ākonga are asked to complete a declaration form specifying that they used GenAI tools ethically. This declaration confirms their comprehension for each of the generated code, their use of generated code, the changes to the generated code and the rationale for those changes, and the gain to the code from per phase. Building on our pastoral care approach and considering how ākonga have a wide range of pre-knowledge, cultural backgrounds, and learning preferences, we have also introduced alternative ways of using GenAI to develop the complex program of the activity. Ākonga can now use conventional prototyping and test-driven development approaches depending on their preference.

Ethical use of GenAI

To ensure ākonga use GenAI ethically, guidance is provided based on the teaching strategy. Ākonga are required to fill declaration forms confirming their ethical use. Collecting information from the form enables tracing of how ākonga are using GenAI to assist their program development. In one analysis, based on a workshop involving conventional prototyping and test-driven development methods introduced across two workshops, only four out of 21 students claimed using ChatGPT to assist them. Together, kaiako observation, the declaration form, an end-of-course survey, ākonga interviews, and performance data revealed that, although many ākonga appreciated ChatGPT's potential for personalised feedback, a significant number chose not to use it for complex tasks. The main reason was difficulty in understanding the GenAI code and how to incorporate it into their projects. As a result, many ākonga reverted to more familiar resources such as those provided in Moodle, which they found easier to use.

Ākonga who use ChatGPT often find that it adds complexity to their assignments, as using it requires time-consuming analysis and adaptation of the generated code. Those ākonga with lower attendance were more likely to turn to ChatGPT to compensate for missed classes. The poor quality of prompts ākonga tend to provide results in non-optimised code, or irrelevant solutions. The uncomplete framework GenAI provides makes it difficult for ākonga to understand and use each subprogram, an essential step toward integrating subprograms together as a runnable program.

For assessment purposes, there are two ways for first-year ākonga learning programming to solve complex assignments. One way is the conventional one of using prototyping and test-driven development, which requires the learning activities of remembering, understanding, and applying. Another is to take advantage of GenAI code using divide-and-conquer and integration methods which involves analysing, evaluating, and creating.

Instead of banning ākonga from using GenAI tools, they are provided with explicit guidance as to when to use it, especially when introducing the conventional divide-and-conquer method as a problem-solving strategy. So, ākonga are directed to use GenAI to generate small subprograms and later integrate them into a fully functional project after analysing, synthesising, and evaluating the generated code. This approach provides ākonga with an opportunity for students to study at a higher-order thinking skill level instead of lower-order thinking skill level in Bloom's taxonomy pyramid.

Most first-year undergraduate ākonga apply learning processes involving memorisation, comprehension, and application at lower-order thinking levels. Subsequently, they prefer prototyping and test-driven development methods for programming and applying the case into another situation. Only advanced ākonga, or those already confident with programming, can successfully develop an integrated learning approach involving higher-order thinking, and so are able to apply the conversational divide-and-

conquer programming strategy and take advantage of GenAI for problem-solving. Since ākonga on the first-year programming course are always from different academic backgrounds, we continue to use both GenAI tools and conventional learning resources so as to cater for multiple ākonga levels of thinking to encourage their development as learners.

Conclusion

Computer programming involves developing a set of step-by-step commands to a computer for processing data to develop an expected information. Programming is a complex activity involving procedures for logical design, coding, and debugging. Additional skills such as problem-solving and reading and comprehending existing programs are also required.

With GenAI now ubiquitous it is challenging to teach first-year computer programming in a blended learning environment. The blended learning model explained in this chapter focuses on personalised and ākonga-centred learning. The model has three components: automated feedback, pastoral care, and GenAI tools. In independent, self-directed learning, the automated feedback provided in the course provides immediate feedback to beginner programmers by providing visualisations, which assist in the processing of data and commands from design to implementation and in debugging. Secondly, it is essential to encourage, motivate, and engage students in blended learning by providing pastoral care. In this chapter we have described how pastoral care can extend into pedagogy and teaching to better support ākonga from various backgrounds with different learning preferences. The third component is specific guidance to ākonga for effectively and ethically using GenAI. The evaluation of the model mentioned across this chapter involved observation, survey, interview, and analysis of ākonga performance. As a disclaimer, the evaluation is limited to the approach used at Whitireia & WelTec; specific to GenAI, new tools will likely change the results of evaluation over time.

The three components of the blended learning model in this chapter improve the inclusiveness, scalability, and sustainability of learning. Notably, the model can easily be applied to same level programming courses at other institutes. There is no constraint for the approaches described in this chapter to be applied across any ākonga group size except for pastoral care, which will increase kaiako workload as group numbers increase.

Editor's notes:

The model in this chapter demonstrates how technology can be applied toward personalised learning through a blended model. Technology plays a central part, however here we see it deliberately applied to

improve engagement with the concepts involved in computer programming. The pedagogical nature of this approach, the deliberate harnessing of technology to better enable ākonga understanding of concepts, makes a critical contribution to this book. Blended learning with technology can certainly improve the reach of education and provide more flexibility to ākonga; as we can see, it can also be harnessed to provide scalable approaches toward meeting ākonga learning preferences.

We also see in this chapter the need to constantly update blended models. The impact of GenAI is surely acute in teaching programming; we can see here how GenAI is harnessed to improve engagement with core concepts, and to help ākonga develop those fundamental skills of programming that, for now at least, look to be enduring.

A further note from this chapter is the generous presentation of pastoral care. Any blended learning model can be designed to integrate pastoral care with ākonga-centric teaching. While not the type of case study elsewhere in this book, I trust readers resonate with the model here and are able to draw important elements of ākonga-centric design from it.

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CASE STUDY MICRO.2

Wintec: Bioscience in Bachelor of Nursing

Ricci Wesselink | Patricia McClunie-Trust | Kevin Stewart

“Since course materials were no longer provided in lectures, kaiako were able to reposition themselves as ‘guides on the side,’ rather than ‘sages on the stage.’ Kaiako roles became learning facilitators, rather than deliverers of information.”

Context

A knowledge of human bioscience is crucial for making informed clinical decisions in nursing practice. Clinical reasoning requires the integration of abstract concepts such as biochemistry, anatomy, and physiology into a knowledge structure that enables nurses to interpret diagnostic information (Kaufman et al., 2019). Despite this necessity, nursing students globally are reported to experience challenges in understanding biosciences. Our model demonstrates that blended learning and flipped classroom approaches significantly enhance learning by enabling nursing ākonga to better engage with course material.

Wintec has offered a Bachelor of Nursing (BN) degree programme since 1995. It is a three-year, 360 credit degree-level qualification at Level 7, consisting of 18 compulsory courses. The degree includes a minimum of 1,100 hours of clinical practicum, where ākonga provide nursing care to health consumers, whānau, and communities under the supervision of a Registered Nurse (RN).

Learning activities include lectures, simulation labs, and clinical placements in settings such as hospitals, Māori and iwi⁵¹ health organisations, and community healthcare. In the first year of this programme, ākonga complete eight 15 credit courses. Across this first year, full-time ākonga have 20 hours of synchronous, face-to-face classes each week consisting of lectures, tutorials, simulations, and laboratory classes. In addition to this, ākonga are directed to complete 20 hours of asynchronous learning.

⁵¹ Extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory.

Of the eight first-year courses, two cover biosciences; one in the first semester, another in the second. Human biosciences can be broadly defined as including anatomy, physiology, pathophysiology, genetics, microbiology, immunology, biochemistry, and pharmacology (Grøenlien et al., 2021). Historically, the teaching of bioscience in nursing relied heavily on didactic, lecture-style teaching and resulted in passive learning by students. Ākonga engaging in traditional lectures on science, technology, engineering, and mathematics (STEM) subjects are more likely to fail than students in courses with active learning (Freeman, 2014; Ting et al., 2023). Active learning engages ākonga in activities that assist them to construct and apply knowledge in ways that improve understanding and promote higher-order thinking. The model described in this chapter emphasises active learning.

Ākonga cohorts entering the first year of Wintec's BN programme are diverse in age, gender, prior bioscience education, ethnicity, and family circumstances. They also vary in their preferred learning methods and expectations of tertiary education. These factors influence the level of academic performance, success, and, ultimately, retention of nursing students in this programme. Up until 2017, the pedagogical approach taken in the Wintec nursing programme for bioscience adhered to conventional didactic methodologies. This approach featured a weekly schedule comprising a two-hour lecture, a two-hour laboratory session, and a one-hour homework assignment.

In a 2016 course evaluation survey, first-year nursing ākonga expressed a preference for increased variety in learning bioscience. They wanted more interactive online activities, more in-class instructional time with tutors for clarification, more opportunities for applying theory to practical scenarios, and more feedback from tutors. To satisfy these preferences and improve learning, kaiako created e-learning resources including pre-learning lessons, tutorials and post-class activities in Lt, a cloud-based learning platform.⁵² Online lessons were based on materials previously taught in lectures. Laboratory activity sheets were transferred and transformed into e-learning lessons in Lt. Ākonga were then instructed to complete online interactive pre-class lessons as per the flipped classroom approach.

Description

Ākonga activity

It is helpful to consider the ākonga experience across three phases: pre-class, in-class, and post-class. Pre-class, ākonga work through pre-learning lessons in Lt. These lessons introduce and guide ākonga through the topic being covered that week. Lessons are

⁵² Available from AD Instruments, [DAQ Software | Data Acquisition Software & Systems | ADInstruments](https://www.adinstruments.com/) | <https://www.adinstruments.com/>.

intended to take approximately two hours to complete, though the actual time taken varies by individual. A study of 2022 cohort of BN ākonga found that while 41% took one to three hours to complete pre-learning, some 8% spent as little as 30 minutes on this task. A further 18% spent over four hours. Some ākonga watched the videos, answered the questions and completed the activities to a basic level, while others wrote notes and drew diagrams as they studied. Each of these activities extended the time required.

In-class sessions consist of tutorials and laboratories. Tutorial classes are made up of 14 to 25 ākonga working with one kaiako. Ākonga work through activities in Lt designed to promote discussion across the class, consolidate and extend their understanding of bioscience concepts, and illustrate relevance to clinical settings. Activities may be completed as individuals, in small groups of two to six, or as a whole class. Activities in Lt are supplemented with hands-on and kinaesthetic activities such as role plays, diagrams, and model making. Photos of models and diagrams can be later uploaded and annotated in the tutorial lessons in Lt, allowing ākonga to keep a visual record of their in-class learning. Kaiako adapt the way they facilitate learning in these classes based on the type of activity being completed and the type of support required by their group.

Some ākonga prefer working independently, requiring minimal input from kaiako, while others request more guidance and didactic teaching during these classes. So, kaiako negotiate the amount and type of facilitation required by each tutorial group with the ākonga in each class. Having facilitated each tutorial group for one to three weeks, kaiako may ask the whole class how they would prefer to learn: for example, would ākonga prefer to work independently through each page in an Lt lesson as individuals, or in small groups? Either way, kaiako discuss their answers with them when all class members have completed each page. This approach allows more independent individuals or small groups to work at a faster pace, affording kaiako more time to focus on those ākonga who require more support. It allows for differentiation of learning in a class of ākonga with varied experience, prior knowledge, independence, culture and comfort with English language and scientific concepts.

Checking in with the class at the end of each page provides an opportunity for ākonga to check their understanding, learn from their classmates' responses, and receive corrections and reassurance from their kaiako. For classes with a greater proportion of ākonga who are less independent learners, or who are more comfortable with a kaiako-led style of facilitation, an alternative strategy would be to invite the class to discuss all questions with the kaiako and complete all activities simultaneously.

In laboratory classes, groups of 12 to 18 ākonga complete practical activities and experiments which are intended to give them hands-on experiences. Lessons in Lt allow ākonga to enter data they have collected and see it automatically graphed, which assists

with interpretation. ADInstruments Biological Amplifiers⁵³ are used to record, analyse, and interpret physiological data drawn from across the class, providing experiential learning. As in tutorials, ākongā work as individuals or in small groups of two to four across activities, and from time-to-time kaiako facilitate discussion about how experimental results might be interpreted.

Post-class, ākongā have access to optional additional questions and learning activities in Lt designed to extend and test their knowledge. All questions have model answers, providing ākongā with immediate feedback on their understanding as they work through these lessons.

Kaiako activity

From 2017, kaiako wrote lessons in Lt based on what was previously provided during lectures. Since course materials were no longer provided in lectures, kaiako were able to reposition themselves as ‘guides on the side,’ rather than ‘sages on the stage.’ Kaiako became learning facilitators, rather than deliverers of information. Topic objectives were listed at the start of each lesson and then at the top of each page in Lt lessons.

Kaiako start tutorial and lab classes by making connections with past and future topics, then give an overview of what will be covered in these classes. This is brief, as ākongā have prepared by completing pre-learning lessons on each topic before coming to face-to-face classes. Kaiako then support and guide ākongā in their learning, providing feedback, supporting the extension of understanding, and redirecting as needed.

To effectively facilitate learning by all ākongā using this model, kaiako need to have a good understanding of the topic being taught so they can address questions immediately. They also need strong interpersonal skills, including the ability to ‘read’ the class as a whole and individuals within it, to ensure that the learning environment is a safe one that allows all members space to participate and be heard. When working in small groups to complete activities, kaiako are able to assess whether all group members are participating equally; whether some ākongā are active or passive, or dominant or submissive group members. With experience, a skilled kaiako learns to identify dynamics within groups and support them, redirect them, or intentionally control them as needed to create a learning environment that meets the needs of most ākongā. Most of the time, ākongā form their own groups when learning. If the dynamic within established groups is not conducive to learning, kaiako will intentionally create new groups. This is done through mixing techniques that include numbering people as they walk into the class; having ākongā arrange themselves along a spectrum of comfort with a subject, then folding the line on itself to creating pairings of confident and less

⁵³ See [Bio Amplifiers | EEG & ECG Amplifiers, Biosignal Processing | ADI |](https://www.adinstruments.com/products/bio-amps)
<https://www.adinstruments.com/products/bio-amps>

confident ākonga; and intentionally created groupings that contain a mix of ability or to break up difficult group dynamics.

On a weekly basis, and depending on the group, kaiako activities include:

- Informally checking whether ākonga have completed their pre-learning lessons before their tutorials and sending reminders as necessary.
- Conducting tutorial classes, where kaiako record attendance and work through the tutorial lessons with ākonga.
- Providing submission deadlines and checking and recording lesson completions after these dates.

The proportion of time spent in didactic-style teaching varies greatly, influenced by each kaiako's preferred style of facilitation, their understanding of the topic being taught, and degree of experience in teaching. Class preference also influences this approach to facilitation. Some classes prefer more independence and very little didactic teaching, whereas others prefer to be led by the kaiako. As ākonga progress through the bioscience courses, they generally become more independent.

While most ākonga require a great deal of guidance in their first few weeks, they are usually quite independent by the end of the semester having grown in knowledge, confidence, and familiarity with the model of facilitation. By this time, they have also formed comfortable, effective study groups.

Resources

Kaiako have developed pre-learning, tutorial, laboratory and post-class lessons in Lt. The Lt platform was especially developed by ADInstruments, a New Zealand company, to support the teaching of biosciences. In the platform, kaiako can write interactive lessons on any topic. There are tools to facilitate this. For example, kaiako can drag and drop learning panels into lessons. Basic panels include textbox, images, tables, graphs, notebooks, and hotspots. Question panels include text questions, multiple choice, upload and annotate, tables, labelling, drag and drop, categorising, and fill in the blanks. In addition to these features, developers can add videos and audio files.

The broad range of panels available allows the creation of highly interactive, engaging lessons that support learning for those who prefer to learn by reading, doing, seeing and hearing, rather than by lectures. The Lt system is uncomplicated and very easy to use. Authors developing course content choose from icons representing the content, activity and multimedia panels, then drag and drop them in place on an online page. Text styles are limited and logical allowing clear, visually pleasing pages to be created. If the author wishes to make changes, the process is straight-forward. The process of developing content is simple and more authentic than in our learning management system (LMS) Moodle. Ākonga can work through lessons anywhere and at any time, if they have an internet capable device and a reliable internet connection.

Activities for pre-class and post-class are supplemented with model answers that provide ākongā with immediate feedback on their understanding. This allows misunderstandings to be corrected and for ākongā to be redirected as they learn, rather than only when they have access to kaiako during tutorial and laboratory classes. In 2025, kaiako added formative assessments in Lt. Questions in these assessments are similar in structure and content to summative assessments and therefore provide ākongā with even more feedback on their understanding before formal assessment. Pre-learning lessons consist of short videos, some from YouTube and others tutor-made, that are a maximum of ten minutes long. Also included are short sections of text; learning activities including diagram labelling, sorting, and categorising; short audio files explaining concepts or describing scenarios; multiple choice questions; short answer questions; table completion activities; and links to e-textbooks for additional, optional reading.

In addition to Lt lessons, tutorial activities make use of models, diagrams, and craft resources including playdough, glass discs, laminated labels and diagrams, pipe cleaners, beads, balloons, and paper and pens. All facilities used for tutorial and laboratory classes contain desks or tables, a whiteboard or glass board, whiteboard marker pens, and either a projector and screen or large screen computer on wheels, COW. Laboratory class resources include microscopes, chemicals, dyes, glassware, dissection equipment, sheep organs, Biological Amplifiers provided by ADInstruments; sensors; and laptops. In Year One bioscience courses Moodle is also used to provide course documentation, instructions, timetables, and assessment descriptions. Ākongā also complete their summative assessments in Moodle.

All kaiako who have used both Lt and Moodle prefer developing and presenting lesson resources in Lt because of its versatility, simplicity, and the range of activities that can be added to the lessons. Feedback from ākongā, mirrors this experience with numerous examples of positive feedback about their learning experience in Lt.

Timetable

Each of Wintec's two Year One BN bioscience courses run over a 17-week semester. Classes can be timetabled anytime between 8 am to 5 pm. In the first semester, ākongā cover one topic per week for 15 weeks. The remaining two weeks are used for end-of-semester assessments and resits, if required.

Each of the four semester-one courses in the BN programme has ten hours allocated per week. This time is split into five hours of tutor-directed learning and five hours of student-directed learning. Each week the five hours of tutor-directed learning are broken down into a two-hour pre-learning lesson completed asynchronously, followed by a two-hour synchronous in-class tutorial and optional one-hour asynchronous lesson completed after class based on extra questions. In addition to these opportunities, ākongā complete a two to three-hour laboratory class five times across the semester.

The second semester of the undergraduate programme is a little more complicated to timetable, because groups of ākonga rotate through a three-week clinical placement. As in the first semester, 15 topics are taught but over 12 weeks instead of 15. So, there are three weeks where two topics are taught instead of one, doubling the workload for kaiako and ākonga over these weeks. While this double workload makes for a complicated and inconsistent workload across the semester, it is unavoidable while semester two clinical placements are scheduled in blocks, rather than on a specific day each week across the semester. In this case the importance of the pre-learning exercise is emphasised.

Wintec's undergraduate nursing programme has two intakes per year, one in February and one in July. Because of this both semester one and semester two bioscience courses are run simultaneously, but with different cohorts. Our semester two bioscience course content builds on what was learned in the semester one bioscience course. As such, they are effectively a full year 30 credit course and taught in sequence, rather than in parallel.

Assessment

All assessment tasks in the Year One BN bioscience courses are written, marked, and moderated by kaiako in the Health Science team. Wintec's Health Science team teaches in nursing, physiotherapy, and midwifery degree programmes as well as Level 4 bridging and postgraduate courses.

It is helpful to address formative and summative assessment separately. In formative assessment, ākonga are formally assessed on their understanding as they complete pre-class, tutorial, laboratory, and post-class 'extra questions' lessons. Those completed asynchronously have model answers that provide ākonga with immediate feedback on their understanding as they learn.

Summative assessments for each course consist of three supervised tests. Approximately two-thirds of the questions are multiple choice, the balance short answer questions. These tests assess ākonga ability to express their understanding of materials covered in pre-class, tutorial, and laboratory classes. Ākonga may resit each test once if needed, but the maximum mark is limited to 50%. Ākonga receive a passing grade if their overall course mark is 50% or greater.

While supervised tests can be daunting, they effectively assess whether ākonga can recall human anatomy and physiology and explain important processes that underpin vital signs, disease processes and their clinical manifestations, as well as treatment and management rationales. When biosciences are understood well by ākonga in Year One, they form a strong foundation for other aspects of nursing practice and clinical reasoning that will be learned throughout the degree programme and their nursing career.

Institutional ākonga success services

Wintec offers a variety of support services including manaaki pūkenga,⁵⁴ learning advisors; tuakana-teina, peer tutors; kaiāwhina,⁵⁵ advocates; accessibility services; health services; information technology services; counselling; librarian support; and childcare. If ākonga need support with their laptops to access Wintec IT systems, they either go to the helpdesk at the library and speak with a technician in person or email or phone the student IT helpdesk.

Ākonga can access other forms of support, directly through *Te Kete Manaaki*, a centre where manaaki pūkenga, peer tutors, kaiāwhina and accessibility services are located, or through the Wintec health centre where doctors, nurses and counsellors are located. They can walk in and directly request support or make in person or virtual appointments. Alternatively, if kaiako notice that ākonga may benefit from engaging with a support service, they may refer ākonga to specific services. Manaaki pūkenga work with groups or individual ākonga to develop study skills, note taking, time management, writing, and exam technique strategies. Peer tutors in the BN programme are themselves ākonga in their Nursing, Midwifery or Physiotherapy programmes who have demonstrated strong academic achievement and an aptitude for working with their peers. Ākonga who request support for biosciences are matched with peer tutors who then work with them as needed, either individually or in small groups.

Some ākonga intending to enter a bioscience degree programme have not studied Level 2 or 3 biosciences in secondary school, and so are encouraged to first complete one of Wintec's Level 4 bridging course strands. The overall programme is for those who want to begin study but need to build confidence or brush up on skills. Ākonga choose from four strands that align with their career goals; one of these is health. The bridging course is a 17 week, full-time on-campus one designed to help participants develop academic knowledge, study capability, and other skills needed for study in degree-level programmes. Ākonga might instead choose to enrol in Wintec's Level 4 part-time, 15 week online human biology course. Course marks of at least 60% are required for ākonga to enter the BN programme for those without requisite entry courses

Constraints

In the authors' experience, the greatest constraint in implementing the blended learning and flipped classroom model has been first acquiring and now maintaining funding for the use of Lt. Institutions purchase a specified number of student licences at a fixed rate

⁵⁴ Those who are specialists or experts in support, hospitality, and care for others. At Wintec manaaki pūkenga are academic learning advisors.

⁵⁵ Helper, assistant, contributor, counsel, advocate.

on a yearly or three-yearly basis. Once licenses are purchased, ākongas have access to as many courses and lessons their kaiako provide; in that respect, each licence represents great value for money. At the time of writing, the cost of student licenses is carried by Wintec rather than transferred to students. Other institutions transfer the modest yearly cost of licenses on to individual students. This cost is less than that of most textbooks. In the way that Lt is currently used, online lessons replace the need for ākongas to purchase textbooks for bioscience courses.

The Lt platform is very user friendly and, given sufficient time for and practice with development, it is easy for kaiako to create engaging, interactive lessons. Once created, it is simple to administer and edit lessons. In addition to this, if kaiako were given time and support from instructional designers to optimise their lessons they could further develop a consistent high-quality learning experience for ākongas. Kaiako have varying levels of comfort, experience, openness, and creativity when it comes to facilitating learning in non-traditional ways.

Moving from a traditional, didactic, lecture-style delivery of course content to working with smaller groups also requires an institution to have multiple smaller rooms available each week. These classes must also be staffed; instead of having one kaiako delivering a two-hour lecture to over 100 ākongas, they instead need five kaiako to deliver two-hour tutorials to groups of 20 ākongas. These changes are more costly for an institution, but they do result in kaiako having a greater ability to assess and meet the needs of individuals, ākongas engagement, satisfaction, and improve academic services.

Running laboratory classes is also limited by the number of available wet spaces of sufficient size. Wintec has several appropriate laboratory classes, but these rooms have a limited safe capacity of up to 18 ākongas.

Evaluation

A statistical analysis of student achievement data from 2016 to 2019 by Wesselink et al. (2025) quantifies the benefits of the blended and flipped approach described in this chapter. The results of the analysis showed that introduction of the new model in 2017, 2018 and 2019 was associated with a statistically significant increase in the mean marks compared with 2016.

Results were also compared across ethnic groups where ākongas self-identified as European, Māori, Pacific peoples, Asian, or 'other ethnicities.' In 2016, before the introduction of the new model, the mean course marks between ethnic groups were not significantly different. However, by 2019 the mean marks of Asian ākongas had increased significantly. The mean score marks of Pacific students also increased, reaching

statistical significance in 2018. The measurement across other ethnicities was made difficult by small cohort numbers.

Statistical analysis between Māori and European ākonga in 2016 indicated a normal distribution of marks among European ākonga but not Māori ākonga. When this same comparison was made after the introduction of blended learning and the flipped classroom approach in 2017, 2018 and 2019, the distribution of marks for Māori students had taken on a normal distribution. This means that a large proportion of the cohort moved from having marks under 50% in 2016, to over 50% in the following years. The proportion that got greater than or equal to a pass mark increased from 53% in 2016, to 72% in 2017, 81% in 2018, and 83% in 2019.

Mean course marks for student cohorts of different age groups were also compared. Significant increases in mean marks were seen in students aged 20 to 24 years between 2016 and 2018. When mean course marks of students aged 24 to 29 years were compared, those in 2019 were significantly higher than those in 2016 (58.6%, $p < 0.01$). A significant increase in mean course mark was also observed between 2016 and 2017 for students aged 30 to 34.

There was no significant difference in marks between males and females in any of the cohorts, or between all males and females from all groups. This may have been influenced by the small proportion of males (5.9%) in the cohort.

Higher education systems continue to evolve in response to societal and technological changes. Blended learning eliminates the problem of geographical proximity, leveraging technology to provide an alternative enrolment and content delivery option for students who do not live close to a parent institution (Madison, 2013). Benefits to institutions with strong blended learning courses and programmes include the ability to meet workforce demands, increasing student access to study, enhancing competitiveness, and bringing a greater diversity to the student population (Madison, 2013; Martin et al., 2015).

Editor's notes:

Providing blended and flipped opportunities for ākonga is clearly a lot of work! In this model we can see one means of adding more flexibility and active learning as an alternative to didactic lectures. Moving from a 'sage on the stage' to a 'guide the side' takes both humility and a more intensive engagement with ākonga.

There are two issues to reflect on here. One is the centrality of Lt. Clearly, Lt is a highly valued system and kaiaako are deeply invested in it as a repository for activities and an easy-to-use platform for development of active learning opportunities. However, the system does not have assured, ongoing funding. The blended learning model here is clearly a bottom-up one; that bottom-up innovation is always

encouraged, yet not always maintained operationally, presents a concern. The other is the more intensive kaiako commitment the model requires. Time that might be spent lecturing is replaced by a more intensive series of workshops and laboratories, likely increasing cost as it also increases ākonga outcomes. Education models must be both effective and sustainable in ways not always clear to those kaiako who hold ākonga success as sacrosanct.

As in other chapters we can see very dedicated kaiako applying themselves fully to ākonga success, elevating active learning over didactic teaching in ways that reflect effective practice and the nuances of their subject.

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Dr Patricia McClunie-Trust is Principal Lecturer and nurse researcher in the Centre for Health and Social Practice at Waikato Institute of Technology. She holds a Bachelor of Social Science, Master of Nursing and PhD in Nursing. Her role as research leader for the Centre for Health and Social Practice encompasses setting research directions and providing researcher support within the Centre. Patricia mentors and supports researchers with methodological guidance, ethics and funding applications, and digital research tools. She teaches postgraduate courses in research methods, evidence, and practice-based inquiry and supervises postgraduate student research. Patricia is also a member of an international research collaborative that publishes research on graduate entry education programmes, virtual research collaborations and health workforce and professional issues.

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Dr. Kevin Stewart is a physiologist and has spent much of his career at Wintec as a Principle Academic Staff Member teaching physiology and pathophysiology to undergraduate and postgraduate Science and Health Science ākonga, particularly those studying nursing. His research is predominantly medical science at the University of Auckland, but he, with other Wintec colleagues, has also contributed to research with the University of Waikato and the New Zealand Council for Educational Research to investigate the development of more effective teaching strategies to improve student completion, retention, and achievement in science modules in applied-health programmes. He is an enthusiastic supporter of interactive online learning where students are provided with tailored resources that support inquiry-based, self-directed learning while enjoying the experience of engaging with relevant content.

CASE STUDY MICRO.3

Wintec: Courses within the Bachelor of Social Work

Heidi Crawford

“The pre-work, and intentional connection and engagement with ākonga before and during the course, as well as the preparation in terms of what is accessible to them as resources, takes time. Taking such time is exceptionally vital in a blended learning environment.”

Context

As at 2025, the Waikato Institute of Technology (Wintec) Bachelor of Social Work (BSW) is a four-year degree made up of 480 credits, with 210 at Level 7. It has 40 hours of voluntary work in Year 2 and two 60-day placements, one in Year 3 and one in Year 4.⁵⁶ The Wintec BSW qualification supports ākonga to achieve

a beginning practitioner level with provisional registration. On completion of this programme, graduates will have developed a range of transferable skills and professional attributes which will position them well to be responsive to, and to work collaboratively within, the increasingly complex and interdisciplinary social service and health communities (Wintec, 2014, p. 14).

The programme is based on a blended learning framework using a mix of face-to-face tuition coupled with online directed and self-directed learning. Courses have timetabled weekly classes ranging from two to three hours, an additional one to two hours of asynchronous online directed learning and further allocated time for ākonga self-directed learning that includes review, research, and completion of assessments. The programme also includes one-hour per week integrated group tutorials, which incorporate small group learning processes providing a platform for ākonga to integrate theory and practice (Wintec, 2014).

⁵⁶ As of 2026, the Social Workers' Registration Board will begin recognising three-year degree programmes. At the time of writing Wintec is part of a three-year BSW development shared across other polytechnics.

Ākonga enrolled in the Wintec BSW degree are particularly diverse. The ages range from new school leavers (10%) to those in their 60s. The highest percentage of ākonga (44%) are between 25 and 39 years of age. Overall, 83% of ākonga are female. Some 3% of ākonga identify as Pacific Peoples, and 15% are Māori. In the 2025 intake all ākonga were citizens of Aotearoa. Most, 89%, study full time. Some, 15% of ākonga, have accessibility needs which include blind and low vision, hearing impairment, wheelchair dependence and learning difficulties.

Many ākonga enrolled in the BSW would say that they struggled in school and do not feel successful in an educational environment, either because they did not fit in the school system, struggle in a Western structure of academic work, or because they have not had experience in a formal tertiary education setting. It can be particularly difficult for ākonga in their first year, as they get used to studying alongside caregiving and other life responsibilities that come with being people-focused adult learners.

Contextually, the BSW sits within a tertiary education system that is heavily influenced by Western models of teaching and learning, within a neoliberal environment. These factors combine to shape education in negative ways. The struggles faced by many ākonga in the BSW degree, including the key priority learners of Māori, Pacific Peoples, and under 25s, make it vital that learning is provided in a constructive way. Education that is relational as well as knowledge building reinforces values that focus on relationship development and connection as well as whakawhanaungatanga, relationship building, with ākonga toward their success.

A Relational Model of Teaching and Learning (RMTL)

The framework in Figure 1 brings together the author's experience as a primary school teacher, social worker, manager, and academic kaiako. The framework is also informed by Wintec's teaching and learning directions, seen in Figure 2 (Wintec, 2025). This RMTL is currently being utilised specifically in six courses throughout the BSW at Level 6 and 7.

The foundation of this pedagogical framework sits within a social work professional context informed by a Te Tiriti o Waitangi action partnership and relational connection. In Aotearoa New Zealand, social workers need to be active participants in partnership alongside Māori and be taught in a learning environment that demonstrates this (Deverick & Mooney, 2023). The concept of partnership also resonates with educating other priority ākonga, including Pacific peoples.

A vital part of relationship is the use of communication where kōrero, dialogue, and Talanoa, conversation, lead to connection and engagement. Relationship and collaboration across ākonga allows them to 'bring their narratives alive, giving meaning

and authenticity to not only their words but also the relationships they bring into the education space’ (Lino, 2017, p. 45).



Figure 1: *Ākonga-centred Relational Model of Teaching and Learning developed by the author*



Figure 2: *Wintec's teaching and learning model (Wintec, 2025)*

The RMTL described in this chapter is developed within the blended learning framework applied to the Wintec BSW, which combines face-to-face classes with online directed learning. The format has many advantages because of its enablement of connection, relationship, and facilitation of understanding between ākonga and kaiako, which supports online interactions and emphasises supportive formative feedback.

Description

Ākonga activity

The RMTL is designed to be ākonga-centred. Without ākonga, the kaiako would have nothing to do! Who ākonga are, their needs, and their journey towards becoming social work practitioners directs much of how the model is designed to work. Ākonga experience learning as relational, reflective of the Te Ao Māori concept of tuakana-teina. This philosophy of care and learning, where an older or more experienced individual, tuakana, guides a younger or less experienced individual, teina, particularly supports diverse ākonga. Tuakana-teina means previous knowledge is brought and further shared, allowing ‘fresh meanings’ that can help growth and development (Winitana, 2012). Further, while the Western European worldview emphasis outcomes and grades, the Māori worldview seeks to awhi⁵⁷ the mana,⁵⁸ or embracing the essence, of all involved.



*Figure 3: Strengths-based adult education
(Waterhouse & Wirgona, 2008)*

The overall focus for the model is having ākonga use their strengths to support each other, enabling them to develop learning between themselves in a blended, flipped classroom, project based, and integrated learning environment. An example of this in practice is a six-week long ‘self-teaching’ group project, where ākonga work together to develop their learning goals and plan to meet course requirements. This particular example is for the first introduction ākonga have to social research, one of the courses that typically intimidates ākonga as being too academic and difficult. The group project supports ākonga to use their strengths as a group to teach themselves as they achieve together.

The project’s emphasis is on groupwork, interpersonal engagement, and connection. Learning grounded in and derived from

their connection with self, others and the broader social world is vitally important for the development of adult ākonga, especially in a blended learning context; these experiences support preparation for future social work practice (Merriam & Bierema,

⁵⁷ (In its verbal form): To embrace, hug, cuddle, cherish.

⁵⁸ Prestige, authority, control, power, influence, status, spiritual power, charisma.

2013). Continuing the example above, ākongā are put into groups at the beginning of the semester. They complete strengths assessments and discuss these together and the focus is on how they can use their strengths to complete set tasks together. Supporting ākongā to identify their strengths and develop knowledge in safe relationship with kaiako and each other, in a safe space for learning where ākongā know that they can achieve (Waterhouse & Virgona, 2008). This strengths-based approach is illustrated in Figure 3.

In the beginning online preparation ākongā complete an online strengths assessment which then gives them a list of their five top strengths. Ākongā are told in the learning management system (LMS) that they need to reflect on how they can use these in group work and bring this reflection to the face-to-face class that focuses on the project introduction. During this initial class, ākongā are led in conversations together with their group where they share their strengths and how they could be used in a group project. The groups are then given the gist of the aims for the project, which is to ‘teach themselves the research process in a nutshell,’ and they use a template provided to outline their learning goals as well as step-by-step project plan which specifically includes how they use their strengths. This dialogue has a full three-hour class to happen.

In the RMTL ākongā work together with a focus on developing their learning through kōrero, dialogue. This involves bringing what they have learned through the LMS, to the kōrero in the classroom. For the outworking of groups project plans the LMS holds all resources, templates and suggested research readings which ākongā use to reach their learning goals. They use their online time to work on their project and come back to discuss together in classes.

Kaiako activity

A key strategy of adult ākongā motivation involves having kaiako announce their cooperative intention to help (Merriam & Bierema, 2013). Kaiako must show ākongā that they believe ākongā can succeed. Everything the kaiako says and does must be intentional, including the wording used in class, feedback in assessments, and encouragement. Kaiako must take the time to listen and support ākongā in all interactions, not just those in a particular course. Without intentionality trust and reciprocity cannot be formed. Connection is also key, across ākongā with each other and with kaiako. Sharing life experiences is central to many different adult learning theories, including those of Kolb and Schön. What this can look like for kaiako using the RMTL involves noticing any positive learning, no matter how small, and pointing it out to ākongā. It also can look as simple as intentionally saying ‘you’ve got this,’ ‘I know you can do it,’ ‘look at you taking steps forward in your journey.’ While this seems simple, it goes a long way to supporting Ākongā in their belief that they can achieve.

It is also important to manage ākongā disengagement a blended learning environment (Dečman et al, 2025). Kaiako need to be creative and active, especially in online

interaction. The more ākonga are engaged with the kaiako and each other, the more they actively engage in learning. This means that each week kaiako are not just engaging in the face-to-face class but are also having an online presence in the LMS and tracking ākonga engagement. This is usually done twice a week, using activities like online forums or Padlets. Kaiako email or call ākonga who are not engaging, to check in.

In this model, kaiako get to know ākonga and their motivations. This provides kaiako with a holistic view of each ākonga and their context, as well as an understanding of how wider institutional and societal variables impact on their context of learning (Merriam & Bierema, 2013). One example of how kaiako do this is using social work engagement tools, for example the Three Houses or The Bear Cards, as ice breakers with ākonga. These exercises help ākonga to understand how the tools work, while developing a deeper developing knowledge of each other. Awareness of the learning preferences and needs of their ākonga, in addition to their knowledge level and previous life experience, is important and preparation for gaining this knowledge begins well before the semester starts. In the RMTL for this case study kaiako engage in applicant interviews, induction sessions (Year 1), and attend noho marae (Year 1, 2 and 3) which together support a connection with each ākonga. Together, these and other experiences provide insight as to how each ākonga learns, as well as how they work together. The opportunity to observe micro interactions supports kaiako in promoting the overall success for each ākonga.

Initially, in each course, kaiako use a large range of teaching and learning activities to gauge what works for each ākonga, and support individual ākonga to better understand their own ways of learning. One way this is done is a group activity around De Bono's Six Thinking Hats. This activity draws on ākonga reading about the thinking hats from a link on the LMS before the class, then kaiako use a memory game made up of the hats and descriptions. The game gets faster as ākonga play, creating a fun environment alongside connection with the thinking model. Following this activity, kaiako lead a discussion about the hats and what ākonga see in themselves. Doing this allows customisation of learning activities through planning, promoting success in ways that mean kaiako are not simply doing the same thing every time.

An example of customisation can be seen in relation to the self-teaching project mentioned earlier. Kaiako take great care in preparation and prioritise time spent with groups to help them to set up their goals and plan their activities. Because of the connections kaiako develop with ākonga, kaiako help groups of ākonga identify and utilise their strengths and abilities to reach group goals. Kaiako spend time with each group answering questions, and providing encouragement in all six class sessions focused on the project. Kaiako are incredibly vigilant during face-to-face class time, observing ākonga to ensure that ākonga are getting support when the group need it, especially when ākonga are seen to question or struggle. Kaiako will move to these groups to check in, sit down and help with discussion or questions. Kaiako need to

apply judgement to let ākonga 'struggle it out' with their groups to unpack what they're trying to understand, instead of leaping in to rescue.

Resources

Some of the key resources for blended learning needed by ākonga are provided online, so access to technology is vital. The online resources are in the Wintec LMS, Moodle. The LMS for the whole course is open at least one week prior to the course start date, giving early access to all resources, including the full course outline with assessment detail and due dates. In Moodle each week of the course has a unique tab, giving access to all resources and notes available to face-to-face classes as well as preparation and debrief activities. Each kaiako develops these for the courses that they teach.

Examples of resources provided in the LMS for ākonga are: relevant readings to weekly or project topics; templates for online activities or up-coming class activities; handouts of any slideshows used in class, made available before class; discussion forums; Padlets; videos from kaiako or links to other videos; recorded interviews with guests; online discussion times with kaiako or between ākonga; links to relevant websites; examples of assessments; and, often, a video from kaiako about the assessments to support the discussions in classes and providing more assessment detail from the course outline. These are available right from when the course opens.

Physical resources are important in all face-to-face classes, to enhance interaction. The more open nature of blended and flipped classroom models, especially when combined with project-based learning, means kaiako need to be prepared for many different conversations and ways to build knowledge. Access to computers and projectors, paper of various sizes, whiteboards and whiteboard pens, various writing implements, and useful items like Post-it notes and blue tack is essential. One activity used to support and create discussion is a 'Taskmaster' task, as in the television series, that encourages ākonga to think outside the box. One example of this is the brief, 'in pairs, using this piece of A4 paper, make as many pieces of paper you can in five minutes.' Ākonga do this then share what they did with the whole class; they are also able to see the different ways others met the brief, which is intentionally vague to support varied thought. Ākonga are then given a chance to repeat the activity but in less time, drawing on what they learned from how others approached the task. Finally, as a class, two questions are discussed: 'How did you use outside the box thinking in the activity?' and 'How does outside the box thinking support social work practice?'

Timetable

Most courses in the BSW programme are one semester (18 weeks) long and are offered once a year as the BSW is a set programme. Each semester includes two or three study weeks and, for the six courses using the blended model in this case study, 15 directed teaching weeks. These weeks include three-hour face-to-face classes, one-hour

asynchronous or self-paced online directed learning, and an additional hour of synchronous contact availability with kaiako, that is real time interaction, usually via Teams or Zoom. The balance of time is self-directed. The self-directed time allows ākonga opportunity for further engagement, connection, and relationship building that supports their learning. It also gives time to review, research, and prepare and debrief, following face-to-face classes plus assessment work.

Most ākonga in the BSW study full-time, however there is a small contingent of part-time ākonga. Almost all ākonga enrolled in the BSW have other responsibilities, which for most includes at least some mix of part-time work and dependants. One of the reasons the RMTL works is that ākonga become connected with each other and kaiako, as well as with their learning. The relational aspect of the model is specifically important here.

Face-to-face classes are a requirement for the BSW; in the courses applying the RMTL these sessions are vital for the relationship, connection, and shared ownership of learning that are so vital to the approach. The kaiako is key in terms of supporting and encouraging attendance, and offering support for sessions missed.

Assessment

The RMTL model described in this case study involves both formative and summative assessment.

Formative assessment takes place throughout the semester in various ways, such as when in conversation with groups around their progress on projects. During these conversations kaiako need to be intentional, watching body language and asking questions to gauge where ākonga are with their learning. Formative assessment also takes place during those check-in points when groups share their journey of learning. The self-teaching project mentioned previously has ākonga present their progress against group learning goals and includes mention of lessons learned on the way.

Formative assessment also happens at key moments during summative assessment. Each of the courses using the RMTL of this case study have three assessments, each building on from the one previous. Kaiako can gauge where ākonga are at in their understanding and provide ākonga with feedback during the course to support their development of learning for future summative assessments. In two courses the group presentation is the second assessment, which leads to a full report submitted as a group for the final assessment. Feedback is given about the learning shown during the presentation, so kaiako feed forward towards the final report.

Summative assessments for these courses take various forms, intentionally using multiple methods of assessment knowledge presentation. Written reports and essays, physical in-class presentations, pre-recorded presentations, reflections on learning and, possibly the most effective, peer conversations are all forms of assessment ākonga

encounter. The peer conversation has pairs of ākonga develop a recorded conversation that focuses on their development of knowledge. Part of the marking rubric for this assessment reads ‘each ākonga showing an understanding of all concepts involved,’ so ākonga must use questions and direct conversation between them to proactively engage with course knowledge. To prepare for this ākonga are reading, writing, and engaging in conversation to rehearse how they will demonstrate their understanding. Assessments are learning spaces, not just outputs! Group presentations include a similar statement in marking rubrics to support collaboration, leading ākonga away from coming across as a group of individuals only understanding the part they were responsible for.

Institutional ākonga success services

All ākonga in the BSW have access to a wide range of Wintec student supports and services. These include delivery sites that are safe and adequate for physical teaching and providing ākonga with the Microsoft Office Suite to support learning. The Office suite makes it possible for communication, collaboration, and assessment to be on industry-standard and compatible software platforms. These systems support both on-campus and online learning, and enable students to access programme materials, communicate with kaiako and peers, and complete assessments.

Wintec also offers student computers and bookable working spaces, and an on-campus Hub where ākonga can meet. The Hub includes the library and access to information technology services, the latter including loan laptops for ākonga that find themselves without a device.

Ākonga also have access to the people services which include subject liaison librarians; and to the kaiāwhina support services team that provides and coordinates academic, pastoral, cultural and wellbeing support and interventions. The support group includes academic learning advisors, mentoring and peer tutors, counselling services, a health centre with GPs and nurses, and chaplains. Financial support grants, scholarships, and accessibility services that support ākonga who may experience barriers to learning due to impairment or disability are available; reader writers are among the specific options. Wintec also makes available services from the Āniwaniwa Alliance, which supports LGBTTQIA+, Lesbian, Gay, Bisexual, Transgender, Transsexual, Queer, Intersex, Asexual, and more, ākonga in their learning journey.

For the BSW, it must be said that the success services include the kaiako. All social work kaiako are research active and are practitioners teaching from experience as social workers. Other kaiako include those working in related fields of practice, such as counselling, psychology and sociology. The BSW sits within the Wintec Social Practice team, a team that includes the kaiwhakahaere,⁵⁹ the Māori cultural lead. The

⁵⁹ Administrator, boss, director, organiser, manager.

kaiwhakahaere supports connection and engagement with Te Ao Māori, the Māori worldview, and access to mātauranga Māori, Māori knowledge, in a social work context.

Evaluation

There are some constraints to working with the RMTL in this case study. One of those is *time*, the time required to understand and get to know ākonga, both in and outside of the courses kaiako teach. Building a relationship and establishing connection are vital for confirming the belief kaiako have in ākonga and their abilities to achieve. Taking this time can be increasingly difficult in an education context that gives limited opportunity for kaiako to properly connect with ākonga. Noted, often these limitations come because of budget; however, this is reflective of the current neoliberal political environment that tends to focus on education as a business.

Class size can also present a constraint. Relational teaching and learning is much easier when there is a smaller class, because kaiako have more ability to review where ākonga are at in their understanding, and read the room. Relational teaching becomes much more difficult at scale, because kaiako need to work much harder to ensure they are aware of what is going on. More ākonga requires more than one kaiako in the room.

Another constraint can be the ākonga themselves. The model is designed to have ākonga develop connections with kaiako and with each other, so that they can work well together. However, group work can often result in tension. This constraint can also be a positive; conflict can provide an exceptional training field for the use of safe critical conversations and addressing disagreement if done well by kaiako.

A benefit of this blended learning RMTL being used in project-based learning is that ākonga are using skills developed in other courses to work together. They not only learn content knowledge but also gain experience as practitioners able to work collaboratively and can reflect together, as well as individually, about their practice.

The RMTL described in this case study can be extremely successful, especially for those ākonga who struggle academically. It presents a nuanced way of working that might appear to an observer to be very simple and easy; however, it is not. The pre-work, and intentional connection and engagement with ākonga before and during the course, as well as the preparation in terms of what is accessible to them as resources, takes time. Taking such time is exceptionally vital in a blended learning environment. However, it works. Ākonga engage in lessons they often would say they do not want to or is too hard. Not only does this set them up for their learning journey; it also supports the development of key social work knowledge and skills, as well as providing the study and collaborative skills they need as they move into future courses.

Editor's notes

There is intensive relational teaching apparent in this case study, which matches the importance of those relational and interpersonal skills social work graduates need in their practice. The blend of the Relational Model of Teaching and Learning includes online materials; however, the group work and face-to-face engagement are central. There is a clear tension between the individualised, highly interpersonal model in this case study and the economic expectations of providers; while rich in inclusiveness, the model is difficult to scale and sustain. It is also clearly hard work, though ākonga are exceptionally well supported to success. The learning community is especially effective in drawing full-time ākonga with busy life circumstances together.

The case study shows how blended learning can be shaped in a highly relational, truly interpersonal, and richly collaborative setting. While resources are likely similar across cohorts, there remains an intensive customisation for ākonga and opportunities for in-the-moment lessons to be drawn. This intensity is at once the core strength and main limitation of the model, but there can be little doubt that it suits those who 'struggled in school and do not feel successful in an educational environment.'

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Author Profile

Heidi Austin-Crawford BEd (Primary), MSW (Applied), CATT, RSW is a Senior Academic Staff Member on the BSW at Wintec. She has worked in various education and social work settings for the last 24 years. Heidi started her career as a primary school teacher and moved into social work after seeing the needs of children were not being met by the education system. She has practiced as a social worker, senior practitioner and manager working in child protection; a manager of social workers in primary schools and high schools; and as an Academic Staff Member, Senior Academic Staff Member, Programme Lead, and Academic Lead in various social work education programmes across Aotearoa. Heidi holds a Bachelor of Teaching (Primary), a Master of Social Work (Applied), and a Certificate in Adult Tertiary Teaching. She is an active kaiako always pushing the norms and constraints of traditional tertiary teaching models to develop ways to engage ākonga, particularly those who are second chance learners, or who did not have success in the primary and secondary education. Heidi has engaged with the outworking of newly developed degrees of both face-to-face and blended learning settings and is especially passionate about supporting learners to see their strengths and celebrate success.

CONCLUSION

CONCLUSION

Conclusion: Designing and aligning blended learning models

Mark Nichols

“Saying ‘my course is blended’ should invite the response ‘in what ways?’ rather than ‘so is mine,’ to challenge the assumption that both are talking about the same thing.”

I want to start this chapter with a metaphor: it’s the elephant of the cover. The cover of this book is *intentionally* ugly. It is, I freely admit, a ‘Frankencover’ by deliberate design.



Figure 1: Blendagogy cover concept

The graphic designer who supported this book, Milton Bell, was gracious enough to go against his training and professional eye to adapt the cover to this book to demonstrate that design can contain all the relevant information *yet still be somehow entirely unattractive*. I am grateful that his self-respect was robust enough to provide me with what I hope is a memorable metaphor for designing blended learning models. I’m certain he shuddered when I insisted that the main title extend to the back cover.

Figure 1 is the cover concept for the book. I hope it didn’t put you off! The not-so-subtle message of the cover is, you can provide all the right information and achieve something functional: but the level of design expertise behind the outcome is always obvious. I’m sure you cannot deny that Figure 1 is, ultimately, a *compliant* cover.

Just a particularly garish one.

The design thinking behind every blended learning model is as apparent to ākongas as the cover here is to the reader. Blended learning design is an art and a science, and the amateur or else professional skill of the designer will be as apparent to others as is the cover of this book.

While the case study models presented in this book are generally very well designed, I shudder as to the learning experiences some ākongas are exposed to by well-meaning yet myopic, individualistic model designers who apply more enthusiasm than reason into their models. I'm certain we've all seen it (again to emphasise, not within this book's covers).

In part to redeem myself, I asked Milton to design some cover concepts that *he* would be happy with. I provide these with some commentary in the closing part of this chapter. Working with experts is always a privilege!

Onwards, then, to the concluding analysis of this chapter. The 14 case studies in this work present themselves as coherent narratives, and also together form *a multiple or collective data set* (Punch & Oancea, 2014). The data of the case studies is provided as a comparative series of artificially bounded descriptions, and as editor of this work I have benefitted from multiple, detailed engagement with each.

This final chapter draws on the case studies as a data source for helping further refine and clarify what Blendagogy is, and the Blendagogy Framework of four objectives, six factors, and three levels. A closing section proposes an approach to designing blended learning models, drawing on the insights from case studies and applying the Blendagogy Framework.

Defining Blendagogy

Blendagogy was introduced as

the art, science, or practice of combining educational activities for the purposes of student learning. Blends might be coherent, or discordant, depending on their design. Properly practiced, blendagogy seeks to optimise the actions of teaching toward more effective learning (p. 8).

Let's now break that definition down, with the benefit of the case studies.

The art, science, or practice...

Across the case studies there are many forms of blended learning on display, even across the same general vocational education sector in the same national context. Blended learning might be said to be as variable as are genres in art, or fields in science; or, perhaps, as varied as objects of art and science experiments are. Beneath the single pedagogical concept of 'blended learning' lies an incredible variety of possibility; put

blended learning practitioners in the same room, and it is highly unlikely that their practices will mirror one another. So, there is incredible potential for designing blended learning approaches.

What the cases highlight, though, is a critical question: who is the artist, scientist, or practitioner involved in shaping the blend? Is a blended model determined by an institution, academic department, or individual kaiako; that is, does design take place at the macro, meso, or micro level? Models are surely *the result* of all three, the macro and meso levels defining the boundaries of what might be possible and supported. The variable seems to be the amount of leeway provided to the kaiako, the ability they have to express their own pedagogies, use their own technologies, and the extent to, for want of a better term, 'own' their own ākonga.

...of combining educational activities...

Reading through the case studies of this book, the sheer variety of activity is striking. In-class, on-job, in-LMS; discussion, simulation, case study; group activities, individual reflections, personalised feedback are all features that invite emulation and customisation to one's own practice. Common to all models is the combination of face-to-face and online possibilities, which, as above, provides an incredible variety of possibility. In all case studies we can see how activities are selected and provided in coherent ways.

...for the purposes of student learning.

The dedication in each case study to ākonga success lies on the surface of each page. Not all mention outcomes or achievement, but from the descriptions it is clear that the learner is very much in mind. Some case studies mention deliberate strategies toward assisting the achievement of learning outcomes, and others are purposeful to go beyond these toward assisting ākonga become not just successful in courses, but successful as learners.

Blends might be coherent, or discordant...

It is here that we enter the realm of context. I suspect that readers considered each case study in terms of their own practice, and the thoughts 'that would never work here,' or 'my subject has different requirements,' arose more than once. Coherence or discordance, then, is very much in the eye of the practitioner and the subject they teach, within their specific institution. Some case studies have shown that even complex arrangements, thinking here of Primary ITO, can be made to work smoothly from an ākonga perspective if they are well designed. Others might strike the reader as overly complex, too involved, or else insufficient; many case study models are clearly reliant on the educational judgement and (I'll use the word) *passion* of the kaiako, and may not be easily transferable to other contexts solely for that reason.

Coherence and discordance must also be considered across the macro, meso, and micro levels. In some case studies it is easy to see that coherence; in others, the coherence is more at the micro level and discordant with the macro and meso levels. Recall that ‘Any blended model must be compatible across these three [macro, meso, micro] levels, or else risk working against its operational context’ (p. 10). The case studies bear this point out.

...depending on their design.

There are two angles to the word ‘their,’ on reflection; one, referencing the blended model and the sum of its workings, two, referencing the designer or designers of the model being described. The ‘blended model’ was the meaning I had intended when first proposing Blendagogy, in that each model reflects a particular set of design choices, which both reflect and determine the context of ako.

However, considering the case studies beside one another it is clear that some authors designed the model they were describing and others did not. The ‘their design’ component, then, ought also refer to the influence of the kaiako as model designer and agent. Some kaiako have much more freedom in their model’s design and implementation. Other kaiako are much more confined, or else, to state it more positively, are provided more structure, within a model they can little influence.

Properly practiced, blendagogy seeks to optimise the actions of teaching toward more effective learning.

One shortcoming of the case studies in this book is the lack of actual ākonga results, though some do indicate high levels of ākonga success. It is unlikely that experimental studies will be of assistance here; while many (Balganova et. al., 2026; Ke et. al., 2023; Liu et. al., 2016; Marquez-Sule et. al., 2023) show blended models to be more effective than standard face-to-face teaching, others (Ilic et. al., 2015) show no difference. A criticism of such studies is that blended models usually provide more opportunity to engage in learning, so it should be no surprise that motivated ākonga will benefit.

A hard analysis of grades, preferably enabling comparison across pre- and post-blended models, will evidence the optimisation, mindful that this dimension must also fit alongside the four objectives. What constitutes ‘properly practiced’ will involve a consideration of subject matter, macro and meso constraints, and ought also to be evaluated against the limits and opportunities available to model designers.

Drawing on the case studies, refinements to the Blendagogy definition on the following page are evidenced.

Blendagogy is:*The art, science, or practice...*

- Determined significantly by the macro and meso levels.
- Shaped by the expertise of and support offered to the kaiako.

...of combining educational activities...

- Both face-to-face (including virtual) and online.
- Which might be as varied as the contexts and individuals involved.

...for the purposes of student learning.

- The ultimate objective for blended learning.
- Concerned with student success in terms of subject, and as learners.

Blends might be coherent, or discordant...

- Blended effectiveness is context dependent.
- Fit with meso and macro level assumptions and dynamics are key.

...depending on their design.

- The combination of six factors determines the design.
- The agency of kaiako shapes the variety of approach.

Four objectives

It is not my intent to comment further on the validity of the four objectives here (see Nichols, 2025), but it is helpful to comment on their application. There is a tension across the ākongā-facing elements of availability and inclusivity, that must be aligned with the institution's own imperative to be scalable and sustainable. In my editor's comments to each case study, I point these tensions out from time to time.

As a general observation, those models with strong macro level alignment tended to meet the four objectives better than those more aligned with the meso and micro levels. It is possible for some blended models to be so focused on the teaching and learning experience that the ideals of availability, inclusivity, scalability, and sustainability are not achieved. I don't think any case study in this book perfectly illustrates this point, but the variety of models on display does show that too much focus on the micro level experience can compromise the four objectives by making the ideal the enemy of the viable. This should give pause to educators with full agency.

Overall, exceptions to four objectives alignment across the case studies look to be when the ākonga volume the model could accommodate was limited, making the model less viable and highly dependent on minimal enrolment numbers. Typically, this was also when the kaiako was central to the model, presenting a further challenge to scalability. Some models cannot not scale up without adding additional classes or more kaiako, and neither can the model be conveniently adopted by others. While small scale may be acceptable from a kaiako perspective in that smaller classes are more manageable and have better interpersonal dynamics, it might be problematic from an institutional perspective where income from higher volumes might lead to better sustainability if the model were more scalable.

I suggest to the reader that the value of the four objectives when designing blended learning models is established, and that care should be taken to be explicit about how available, inclusive, scalable, and sustainable a planned blended intervention will be.

Six factors

One advantage of editing a book is that you become intimate with each chapter. While each case study addressed the six factors in different ways, there is a remarkable picture each provides of the workings of blended learning models that enable comparison. The questions proposed on p. 9 do, I suggest, provide a sound means of describing blended learning models in meaningful ways.

Knowing what ākonga and kaiako *do* in the model; what resources are made available; timetabling; assessment activities, and institutional ākonga success services (deliberately renamed, as opposed to ‘support’ services) gives a solid framework for description that is sorely needed in discussions about blended learning. Practitioners of blended learning will find it helpful to describe their own models using the same case study approach, both as a means of explaining their approach to others and as an opportunity to reflect on the dynamics of what they have designed, either deliberately or inadvertently.

I admit to some reluctance of trying to emphasise any one of the six factors over the others. The case studies demonstrate a critical interdependence across the factors. Overall ākonga activity, for example, is clearly shaped by the other five factors and, at the meso level, institutional ākonga success services make critical assumptions across the other five factors.

It is tempting to add a description of technology into the list of factors, as technology is becoming more central to blended designs. Some case studies are very clear about the role specific technologies play in the model. However, on balance I am satisfied that technology sits within the six factors rather than alongside them. It is suggested, though, as part of the further Blendagogy research section later in this chapter, that ‘institutional

ākonga success services' might be replaced with an explicit consideration of the meso level. This deserves further thought and critique.

Perhaps the factor needing most consideration across blended models is that of timetable. There is a clear tension here across the objective of availability with the, often meso level determined, requirements of the semester. Some blendagogical imagination is needed here for designing models that maximise availability of education, such that ākonga might be able to start, study, and succeed truly at their own pace. On that note, what might it mean to *begin* a blended model design with the factor of timetable, alongside a deliberate complement of the other five factors? In that same vein, what might be designed if a particular vision of *assessment* led the design? Each factor might suggest different possibilities if initially elevated before the others.

Ultimately, I recommend the six factors to the reader as a sound means of describing and therefore designing and critiquing blended learning models. The authors of the case studies in this book had only one exemplar chapter to write against (I offered that of my colleagues Melissa McMin and Lynne Brice of Open Polytechnic, Case study Meso.3, completed before authors were selected). Future case studies now have a generous variety across 14 to benchmark against.

Some observations relating to each of the six factors follow.

Learner (ākonga) activities

In this factor it is helpful to focus on the choices ākonga have in their study experience, and the various agents and sessions they need to engage with. In some cases, the range of ākonga activity and kaiako involvement is extremely diverse; making this plain goes some way toward ensuring careful planning around orientation. Extremely complex or multi-faceted requirements for ākonga need careful implementation. The Primary ITO case study does this well, in that a very complex series of relationships benefits from a central relationship and single technology interface. Other case studies begin with a careful view of who ākonga are, especially their professional contexts, so that the model best suits real-life relevance. In some cases, models need to align with the needs of distinctive ākonga groups (such as internationals, or those unable to attend synchronous study sessions).

The various case studies demonstrate that disclosure of ākonga activity should include reference to ākonga circumstances, their previous study experiences, their need for collaborative and experiential engagement, and any differences between clearly definable ākonga groupings. However, it's not just about who the ākonga are. In some models, collaboration and a sense of learning community suited the subject area, whereas for others these considerations were less important. A surprising number of ākonga activities are also determined by timetabling (see below). Describing ākonga activities is a useful starting point for describing blended models, however it is important that this does not

become the priority or privileged position for model design. Ultimately, the ākongā experience is one of six anchoring points for a model's design and description.

Teaching (kaiako) activities

There are plenty of examples across the case studies where kaiako seem to take on too much. It is this factor where matters of scalability and sustainability come to the fore, and designers of blended learning should take care to apply these two 'objective' lenses across their models. Also apparent across the case studies is the importance of a division of labour, for want of a better term; not all teaching activities need to be performed by the same individual or role. There is considerable scope here for blended learning model designers to form complementary relationships with other teaching professionals, particularly in the interests of scalability and sustainability.

Looking across the case studies, it is interesting to see the differences between those models designed and experienced by the authors, and those being described by designers not actively involved in the models they write about. I don't mean to critique authors on either side, just to draw readers' attention to the fact that any description of kaiako activity might betray their role in the model's actual use. More important is for a description of kaiako activity to include mention of the particular teaching skills and competencies kaiako need to have to succeed in the model; as examples, a deliberate 'guide on the side' or interpersonal style needed by kaiako, or specific industry or assessment experience, should be mentioned.

Another element discernible from some cases is the level of technology literacy or commitment to the blended model kaiako might require. Some models in case studies would simply not outlast their designer-as-kaiako status, because the model reflects the designer's approach and preferences in a highly tailored way. I offer no judgement here, as the success of blended models surely rests upon the enthusiasm of kaiako, but I do point out that highly individualised blended model designs tend to be neither scalable nor, ultimately, sustainable. Care should be taken by blended learning model designers to make their approaches as transferable to other kaiako as possible. From the case studies, transferability tends to be true of those models with a strong macro and meso level alignment.

Resources

The role of digital educational resources is central to blended learning models. The case studies demonstrate that care must be taken to not only provide good quality materials, both for reference and activity, but to also maintain them. Several case studies indicate that not all resources need to be digital; there exist creative opportunities for ākongā to learn using resources they may well have around them. Including role plays, case studies, and simulations as resources add interesting possibilities to blended learning design.

Resource availability is one thing, the ability of ākonga to access is quite another. Some case studies highlight the limitations some ākonga face in digital literacy and device ownership, and others present ākonga with different technology systems. Care must be taken to ensure that resource decisions are compatible with institutional success services, and that suitable orientations are on hand. Also, more resourcing is not necessarily better. A coherent, focused series of resources should be preferred over a chaotic variety of broad options, a caution particularly relevant in our time of access to an abundance of information and easy generation.

A further observation: some case studies look to have the blended model underpinned by centrally designed learning resources, not necessarily created by kaiako. Others required a great deal of kaiako time to generate and maintain. Blended learning models place a significant burden on learning resources, so recognising the effort required to develop and maintain them is a must for model designers. The difference between study guides, learning narratives, and reference materials is important, as is the difference between an uploaded set of PowerPoint slides, often without context, and a recording of a presentation based on those slides. It should be considered significant that only two case studies mention textbooks as a resource, available digitally through the library (no purchase required). Several case studies make explicit mention of no textbooks being needed. This is an absolute shift from even a decade ago.

There are real opportunities for blended learning to use ‘resources’ as the basis for a flipped classroom approach, which makes a great deal of change to ākonga and kaiako activity in the model. Resources, I contend, hold a great deal of promise for shaping, rather than just complementing, blended learning.

Timetable

This factor looks to be the most shaped by the meso level. Semesterisation (or not) plays a central role in the shaping of blended learning models, providing the structure or else fluidity for different approaches. Also relevant is whether ākonga will opt to study part-time or full-time. Almost all models in the case studies are suitable for part-time engagement, the exceptions providing a much more intensive ākonga experience.

Including ‘timetable’ as one of the six factors may at first have been strange to you; hopefully by now you can appreciate the fundamental difference semesterisation makes to blended learning models. In some cases, unusual design decisions were required to accommodate the stringent requirements of the timetable. In others, a freer approach meant that ākonga could have their studies move relevant to the seasons, or else accommodate life events and giving ākonga options for dealing with real-life alongside part-time study commitments.

Timetable decisions, or usually, responses to meso level timetable decisions, determine the roles of ākonga, kaiako, and resources to a large extent. The possibility of learner

cohorts and collaboration, attendance, and the mix of synchronous and asynchronous activities all find their starting point in this factor.

Assessment

Assessment is taken extremely seriously across all case studies, and it is a major source of compliance activity in the Aotearoa New Zealand context. Here, macro level requirements are shaped into meso level quality systems, with a subsequent, high-stakes expression at the micro level.

That assessment is digitally processed is a given across all case studies, and some describe complex systems of moderation and processing. Assessment provides important opportunities for ākonga engagement and pacing, kaiako reassurance, and tracking of progress alongside promoting learning and the gathering of achievement evidence. It is interesting to reflect that several case studies report carrying traditional assessment approaches into their blended models, while others deliberately apply assessment in ways that promote kaiako connections across courses.

Assessment at scale is evident across some case studies; in others, the ability for kaiako to mark and provide a high level of feedback presents limitations to scalability (or else opportunities for innovation). Intensive use of formative activities requiring feedback add to this limitation. For model designers, consideration must be given as to the effect assessment has on ākonga and kaiako roles, and the requirements of the timetable, in the context of macro and meso level requirements. All this, while also ensuring assessment extends learning and aligns with the ākonga context as much as possible!

Clearly, model designers must ensure compliance alongside seeking opportunity for learning-centred, clever solutions. Alongside the ‘timetable’ factor, ‘assessment’ seems to me to hold the most important possibilities for future blended learning model design. Distinguishing across theory and practice approaches looks to be a good start point, and contemporary concern over the integrity of assessment must be addressed in the design of blended models.

Institutional ākonga success services

All case studies made mention of generous success services, with some reporting deliberate engagement with these at the course level. Institutional ākonga success services are clearly a meso level consideration, and I suggest that these must play a much more deliberate role in blended learning model design. Blended learning models have potential to be extremely complex, particularly when various technologies and detailed systems underpin them. The role of learning analytics can play an important part of success service configuration, too.

It is encouraging to see the provision of devices and the level of technology support available to ākonga across the case studies. These vastly improve the availability and

inclusiveness of education. Tailoring institutional ākongā success services to local conditions also emerges as important, as does the potential for success services to relieve kaiako, already usually working hard on other elements of teaching and learning, to be supported themselves. Providing, for example, online referencing courses, orientation materials, and assessment guides centrally adds to the scalability and sustainability of blended learning models.

Three levels

The robustness of the three levels for designing blended models is well demonstrated, and again the reader is referred to the various editor's comments at the end of each case study for specific observations. The three levels form the basis of how case studies are presented in this book.

It is worth emphasising here the value of designing blended models that align across all three levels. Across multiple case studies there is evidence of both alignment and misalignment. Where alignment exists, the model seems to run smoothly, with logical relationships across the six factors and supportive technologies. Misalignment is typically evidenced by reference to constraint or frustration.

Are blended model designers limited to micro level decisions, limited by a fixed meso and macro context? Often, yes. However, the case studies suggest to me that the success of blended learning is as much an institutional and system-wide issue as it is an individual practitioner one. Decisions from a minister of education, funding, and quality bodies both extend and limit blended learning possibilities as much as do decisions from institutional budget setters, technology governance groups, industry and profession standards-setters, professional developers, and the local guardians of quality management systems. Designers of blended models would do well to critique, align with, and advocate improvements to institutional systems and technologies such that their models align with the four objectives and work as smoothly as possible. In some instances, the clear value of a model's design begs intervention against meaningless macro and meso constraints.

Technological alignment at the meso level specifically stands out as I reflect across the 14 case studies. Some models have a streamlined relationship with available technology and its configuration; other case studies are more awkward in their meso level alignment with technology, with associated concern from authors. Choices of available technology and its general configuration are seldom made at the micro level, and even where it is, the result is highly dependent on the technological literacy and enthusiasm of the model's designer. While not suggested as an additional factor, the choice, use, and configuration of technology deserve a special consideration in the description of blended models.

The central truths revisited

Some ‘central truths’ were proposed on p. 11 of this book.

- Blended learning models are highly variable.
- Blended learning models can be compared by describing the six factors behind each.
- Macro, institution; meso, qualification; and micro, teaching and learning contexts are all essential for the design and overall success of a blended model.
- Blended learning models are best when carefully designed, which involves optimising the six factors across the three levels, set within the four overall objectives.

I contend that all central truths are sufficiently evidenced across the case studies in this book. There is a certain irony that the term ‘blended learning’ can legitimately serve as a superset for the considerable differences across the models described in the previous chapters, and two different kaiako can describe their models using the same term yet be involved with entirely diverse activities. Saying ‘my course is blended’ should invite the response ‘in what ways?’ rather than ‘so is mine,’ to challenge the assumption that both are talking about the same thing.

With the commentary complete, I now turn to a recommended approach to designing blended learning models.

Blendagogy: the art and science of design

This chapter is purposefully called designing and aligning, however the two are iterative. As we have established, the four objectives, six factors, and three levels are dynamic and influence one another in important ways. Here, we consider how the art and science of design can be brought together into coherent and four-objective-maximising blended learning models.

I commend a ten-stage approach to designing blended learning models based on the journey through this book, with particular reference to the commentary earlier in this chapter (the Appendix following this chapter is also highly recommended). As a format of design, I recommend the activity of writing your own blendagogy case study using those earlier in this volume as exemplary. The case study format is not only a good means of communicating your blended model; it is also an important means of structuring its initial design.

1. Open a new document, and apply the standard headings used across the case studies in this book. Begin your Context section with a vision of what might be possible for the subject or subjects you’re dealing with, and the sort of blended experience you would like to give life to. This ought to be in general terms to begin with. Add some further

considerations to the Description sections under each of the six factors as they occur to you. Start with a high-level set of ideas for each.

2. Develop a thorough understanding of your meso context, in particular the ‘assessment’ and ‘timetable’ assumptions, and ‘institutional ākonga success services,’ of your institution. There will also be assumptions around the kaiako role to consider in the ‘kaiako activities’ section. These will add further to the Context and Description sections.
3. Determine the meso level technology and ‘resources’ opportunities and constraints, and the level of flexibility that might be possible across these. Include the extent to which the other meso level factors might accommodate different technology and resources choices. These will provide further Context and will again spill into your Description sections.
4. Fully draft the ‘assessment’ section, looking to leverage assessment for the purposes of learning.
5. Next, imagine the ‘ākonga activities’ section. Draft what this might look like.
6. Describe what the ‘kaiako activities’ might look like. Try for a realistic volume of activity, and fully draft the resources factor with this in mind.
7. Draft the ‘timetable’ section and consider the extent to which it constrains your ideal. Describe possible adjustments to the meso level to suit a better model.
8. Revisit the ‘ākonga activities’ section, to full final draft.
9. Apply a filter of, ‘is this too much?’ ‘What might a better sense of ‘enough’ look like?’ Revisit your draft with this critique in mind, this time being deliberate about how available, inclusive, scalable, and sustainable your design looks to be. Press back on meso level factors that present hard barriers to an effective model, seeking changes or accommodations.
10. Revisit steps two through nine, further polishing your case study description until you’re convinced your model is optimal.

These deliberate steps are intended to promote a dance between designing and aligning a blended learning model. Designing a micro level six factors without alignment across the six factors, or misalignment to the meso and macro levels or four objectives, results in a Frankencourse.

With that in mind, I invite you now to compare Figure 1 in this chapter with Figure 2.



Figure 2: Alternate cover concepts

The differences in style from Figure 1 are obvious. So, too, are Frankencourses.

Further Blendagogy research

The case studies in this book lend themselves to other researchers as a dataset. The case study approach also invites others to contribute their own models, and model designs, for the benefit of a scholarly community.

This book is published by [Blendagogy.org](https://blendagogy.org), a self-publishing solution, which provides opportunity for blended learning enthusiasts, practitioners, and theorists to share their experiences and thinking. The Blendagogy Framework also lends itself to further research and debate.

As an open invitation, I invite readers of this book to consider and write about blended learning to further advance the future of education. Specific ideas for contributing include:

- Additional analysis of and comparison across the case studies in this book, and others that might become available.
- Critique of the four objectives, six factors, three levels Blendagogy Framework.
- Further case studies, including exploration of ideal possibilities.
- Investigation of open questions:

- Does the Blendagogy Framework sufficiently recognise the opportunities and challenges posed by artificial intelligence?
- Should the ‘institutional ākonga success services’ be replaced by a description of the meso level (including success services technologies, and other meso concerns)?
- Who should be involved in determining an institutional design based on the Blendagogy Framework? What should the agency of kaiako be in model design?
- Techniques for optimising blends across the six factors.
- The usefulness of the six factors for blended learning practitioners using different models to compare practice and insight.

Many other opportunities may have occurred to you across the case studies and the analysis in this closing chapter. Suggestions for adding to the body of knowledge and engaging with the ideas of this book are available at [Blendagogy.org](https://blendagogy.org).

AI has its say

This book has been written this far with minimal AI involvement, limited to automated grammar and spelling checkers and the odd APA 7th reference. The Appendix that follows, prepared after the full draft of this book, provides Gemini’s analysis of key themes and the case studies. In some ways, it’s a check of my own analysis and thinking and, as usual in contemporary research, the AI output provides a still further richness of critique. I commend Appendix One, mindful that one day the Appendix might be my only contribution to work solely authored by AI.

Happy, thoughtful blending to you.

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APPENDIX: Bringing Gemini to the party

It is now important for all authors and editors to provide a statement of AI disclosure. This book was edited, and chapters prepared, without the involvement of generative artificial intelligence except for that included in grammar checking tools inherent to Microsoft Word, and an initial search for sources related to comparison studies in blended learning models. Some checking was also made for APA referencing. All suggested sources were checked.

I admit it was hard to resist having AI inform or even create the final chapter. Instead, I resisted until all was fully drafted. What follows is a brief series of prompts to and responses from Gemini Flash. The introductory chapter and all case studies were provided as a source for each prompt; to be clear, the concluding chapter and materials before the introductory chapter were not included. No critique of these responses is provided, beyond stating that some comments are insightful and very useful.

Four prompts were applied. The first is responded to by two different models, Gemini Flash 3.6, then Gemini Pro 3.1 (Extended thinking). The other three prompts were addressed by Gemini Pro 3.1 (Extended thinking). All engagement took place in August, 2026. Some slight edits are made to correct the spelling and stylistic conventions elsewhere across this book, and text tables from output are reformatted.

Prompt one

[PDF uploaded]. The PDF contains an introductory chapter explaining a model for blended learning. It is followed by a series of case studies all prepared in the same format. Address the following queries about the model, with reference to the case studies. Firstly, how well do the case studies validate the Blendagogy Framework of four objectives, six factors, and three levels? Second, what are the main lessons to be drawn from each of the six factors across each case study, itemised by factor? Third, what advice should be given to designers of blended learning models based on the contexts of the PDF? In your response, limit your response to the first question to 500 words; to the second question, a limit of 1600 words overall, ensuring you address all six factors in turn; to the third, 600 words. The style of response should be written in a friendly, non-academic tone but with substance.

Gemini Flash 3.6 response:

Here are the responses to your queries regarding the Blendagogy Framework and the provided case studies.

Question 1: Validation of the Blendagogy Framework

The 14 case studies strongly validate the Blendagogy Framework’s three core dimensions, four strategic objectives, six descriptive factors, and three levels of context, demonstrating its utility as both a diagnostic tool and a design model across diverse vocational settings.

THE BLENDAGOGY FRAMEWORK		
Strategic Objectives	Descriptive Factors	Context Levels
• Availability • Inclusiveness • Scalability • Sustainability	• Ākonga activity • Kaiako activity • Resources • Timetable • Assessment • Learner success services	• Macro • Meso • Micro

Table 1: The Blendagogy Framework (Gemini)

Strategic Objectives

The cases validate that blended design must optimise four competing objectives:

- **Availability & Inclusiveness:** Addressed by offering asynchronous access, regional hubs, and HyFlex options. NorthTec’s regional hubs (Macro.2) and SIT’s GIS micro-credential (Macro.4) prove that blended delivery expands access for isolated or working learners.
- **Scalability & Sustainability:** Demonstrated by the Cross-Network Delivery (CND) pilot (Macro.1), where Open Polytechnic’s centralised distance courseware allowed NorthTec to expand its business portfolio efficiently without duplicate development costs.

Six Descriptive Factors

The uniform structure of the case studies confirms that any blended model can be fully articulated through the six factors:

- **Ākonga activity:** Shifts toward self-directed, multi-modal engagement.
- **Kaiako activity:** Shifts from traditional lecturing to dynamic facilitation, coaching, and data-driven monitoring.
- **Resources:** Highlighted by centralised digital learning environments (e.g., iQualify, Moodle, Blackboard).
- **Timetable:** Shift from fixed semester schedules to flexible, asynchronous, or monthly intake patterns.
- **Assessment:** Emphasises authentic, project-based tasks over static written exams.
- **Learner success services:** Must be integrated across both virtual and physical spaces.

Three Levels of Context

The framework's premise that macro, meso, and micro levels must align is vividly validated by the operational friction documented when alignment fails:

- **Macro (Institutional/Policy):** Macro level constraints heavily dictate operational success. Unaligned funding models, regulatory accreditation hurdles (e.g., NZQA/TEC subcontracting rules in Macro.1), and StudyLink full-time study requirements (Meso.3) directly restrict micro level innovation.
- **Meso (Programme/Department):** Alignment at the meso level ensures consistency across qualifications, as seen in the custom programmatic structures of Ara's adult teaching certificate (Meso.1) or Future Skills' management degrees (Meso.2).
- **Micro (Course/Teaching):** Micro level flexibility allows educators to adapt daily teaching strategies, but without macro and meso support (such as workload abatement or IT integration), micro level efforts suffer from tutor burnout and fragmented student experiences.

Overall, the case studies validate that blendagogy is not a rigid formula but an adaptable, structural ecosystem. When all three levels align to balance the four objectives across the six factors, blended learning moves from an ad-hoc 'Frankencourse' to an authentic, high-performing educational experience.

Question 2: Lessons drawn from the six factors across case studies*1. Akonga activity*

- **Scaffold autonomy and digital readiness:** Learners entering blended environments, especially at foundational levels, often lack self-regulation, time management, and digital literacy skills. Initial scaffolded face-to-face or synchronous sessions are essential to build confidence before transitioning students into autonomous, asynchronous study.
- **Value of Social Presence and Relational Connection:** Fully asynchronous study risks isolating learners. Incorporating active online discussion forums, peer-to-peer collaboration, or physical/virtual connection spaces (e.g., whanaungatanga, learning hubs) significantly boosts engagement and retention.
- **Choice Requires Explicit Guidance:** Models offering flexible engagement modes (such as HyFlex) empower working adults to balance study with personal commitments. However, learners require clear orientation and explicit expectations regarding workload so they can make informed choices about how they participate.

2. Kaiako activity

- **Shift from lecturers to multi-modal facilitators:** Blended models fundamentally alter the educator's role from a content presenter to a learning designer, mentor, and coordinator. Facilitators must navigate complex environments (such as concurrently managing live classroom attendees and remote Zoom/Teams participants).

- **Workload intensification and administrative strain:** Managing asynchronous communications, tracking non-engaged ‘ghost students,’ managing software licensing, and providing individualised feedback consume far more time than traditional face-to-face teaching. Institutional recognition through workload abatement or team-teaching support is critical to prevent burnout.
- **Ongoing professional development is essential:** Kaiako cannot be assumed to possess native online or hybrid teaching competencies. Structured, continuous coaching and pedagogical upskilling are vital when transitioning staff to blended models.

3. Resources

- **Asynchronous-first and concept-centric design:** Learning courseware should be developed with an ‘asynchronous-first’ mindset, featuring modular, textbook-independent content that scaffolds concepts rather than simply dumping information online.
- **Accessibility, reusability, and tool-agnostic design:** Resources must prioritise accessibility (e.g., Universal Design for Learning guidelines, offline alternative formats, text-to-speech). Utilising reusable digital assets and platform-agnostic tools prevents institutions and learners from being locked into proprietary software dependencies.
- **Equitable hardware and connectivity access:** Digital division remains a major barrier in regional and vocational contexts. Successful implementations require proactive resource provisioning, such as laptop loan schemes, offline-capable learning applications, and subsidised hardware.

4. Timetable

- **Break free from traditional semesters:** Flexible monthly intake dates and self-paced pathways allow learners to enter study when ready rather than waiting for annual or bi-annual semester cycles.
- **Aligning schedule dynamics with real-world contexts:** Timetables must accommodate seasonal work demands (e.g., farm calving seasons in agriculture) or full-time employment schedules (e.g., running synchronous live sessions in the evening).
- **Structuring asynchronous flexibility:** Complete flexibility without boundaries can lead to procrastination. Establishing clear weekly pacing guides and fixed assignment milestones helps learners manage cognitive load while retaining schedule flexibility.

5. Assessment

- **Transition to authentic, work-integrated projects:** Blended learning excels when replacing traditional closed-book exams or essay-based recall tests with authentic, practical, work-integrated projects and portfolios.
- **Maintaining equivalency and integrity across modes:** Designing assessments that offer equivalent outcomes across synchronous, asynchronous, face-to-face, and online modes requires careful rubric design and pre/post-moderation processes.

- **Proactive response to Generative AI:** The rise of GenAI challenges traditional written assessments. Blended assessment design must move toward GenAI-resilient strategies, such as reflective design journals, live presentations, practical observations, and multi-modal submissions.

6. Institutional Akonga Success Services

- **Wrap-around and integrated support infrastructure:** Pastoral, academic, technical, and cultural support services must be integrated into the online platform environment rather than existing as isolated campus-based offices.
- **Data analytic interventions with a human touch:** Automated tracking dashboards and data analytics effectively flag early disengagement or missed deadlines. However, automated prompts should trigger personalised, human outreach (from tutors or mentors) to maintain trust and cultural responsiveness.
- **Targeted support for diverse learner groups:** Support services must cater to specific needs, offering literacy and numeracy assistance, accessibility accommodations, and dedicated culturally responsive support (e.g., Māori and Pasifika mentoring).

Question 3: Advice for designers of blended learning models

Designing an effective blended learning model requires looking past the surface allure of educational technology and focusing on structural, pedagogical, and operational alignment. Based on the experience documented across the PDF, designers should adhere to five key principles:

1. Design for systemic alignment across macro, meso, and micro levels.
2. Adopt an 'asynchronous-first' pedagogical foundation.
3. Explicitly redefine and resource the kaiako (educator) role.
4. Build inclusive, integrated wrap-around support systems.
5. Establish authentic, GenAI-resilient assessment frameworks.

1. Design for systemic alignment across macro, meso, and micro levels

A major takeaway from the case studies is that innovative course-level (micro) designs fail to endure if they conflict with qualification (meso) standards or institutional/regulatory (macro) policies.

- **Action:** Before launching a blend, ensure that funding arrangements, workload allocation formulas, IT infrastructure, StudyLink requirements, and regulatory accreditation rules (such as NZQA/TEC subcontracting or professional body requirements) directly support the model.

2. Adopt an 'asynchronous-first' pedagogical foundation

Whether building a HyFlex, bichronous, or fully online blend, base the curriculum design on high-quality, self-paced, narrative-scaffolded digital courseware.

- **Action:** Treat live synchronous sessions (face-to-face or online) not as content-delivery lectures, but as interactive spaces for clarification, application, and

relationship building. Ensure all core learning materials are modular, accessible, tool-agnostic, and reusable.

3. Explicitly redefine and resource the kaiako (educator) role

Blended teaching requires a totally different skill set than traditional lecturing. Expecting educators to intuitively manage multi-modal delivery without structural support leads to cognitive overload and burnout.

- **Action:** Build dedicated professional development, instructional design support, and teaching-hour abatements into the project plan. Establish clear role boundaries, especially when separating academic content leads, local facilitators, and markers.

4. Build inclusive, integrated wrap-around support systems

Flexible access means little if learners flounder due to weak digital literacy, isolation, or a lack of administrative clarity.

- **Action:** Embed pastoral, academic, and technical support directly into the primary digital learning interface. Combine automated engagement analytics with early, personalised human interventions. Ensure that onboarding and orientation explicitly teach online study skills and digital tool navigation.

5. Establish authentic, GenAI-resilient assessment frameworks

Traditional written recall tasks translate poorly to blended environments and are increasingly compromised by generative AI.

- **Action:** Shift assessment design toward authentic, contextualised, project-based tasks, multi-modal presentations, and workplace-integrated portfolios. Ensure that marking criteria are transparent, constructively aligned with outcomes, and moderated to maintain parity across all participation modes.

Gemini Pro 3.1 (Extended thinking) response:

Validating the Blendagogy Framework

The case studies successfully validate the Blendagogy Framework as a highly effective descriptive and strategic tool. By asking authors to structure their narratives around the six factors, ākonga activity, kaiako activity, resources, timetable, assessment, and institutional ākonga success services, the framework proves that these elements universally define the mechanics of any blend. This consistency allows for clear comparisons across vastly different educational settings, from work-based dairy farming models to postgraduate learning design.

The framework's four strategic objectives (available, inclusive, scalable, sustainable) are consistently shown as the primary catalysts for adopting blended approaches. For example, NorthTec's learning hubs and cross-network delivery models were intentionally designed to make education more available and inclusive for remote learners facing infrastructure and life-

commitment barriers. Similarly, Southern Institute of Technology's (SIT) HyFlex models demonstrate how blended learning scales reach and ensures long-term programme sustainability by increasing domestic enrolments.

The three contextual levels, macro, meso, and micro, are deeply validated by the constraints and operational realities described by the practitioners. Macro level institutional funding, software licensing, and strategic alignment dictate the boundaries of what is possible. Meso level factors shape qualification-specific pedagogical needs, such as the Teaching Council practicum requirements driving the Open Polytechnic's Bachelor of Teaching. Ultimately, micro level teaching decisions succeed or fail based on how well they align with the support structures provided by the upper levels.

Lessons Drawn from the six factors

- **Ākonga activity:** Blended learning fundamentally shifts learners from being passive recipients of information to active, self-directed participants. Across the case studies, offering choice and flexibility is paramount for engaging working professionals and adults balancing complex lives, enabling them to fit study around their existing commitments. However, this autonomy requires high levels of self-regulation and digital literacy, which cannot simply be assumed. Learners often struggle initially with asynchronous study, making early orientation and structured peer-to-peer connection essential for building confidence. Case studies highlight that face-to-face workshops, regional learning hubs, or integrated collaborative tools are vital for reducing isolation and building trusting learning communities.
- **Kaiako activity:** The educator's role undergoes a massive transition from a traditional content lecturer to a multi-modal facilitator, mentor, and digital navigator. Managing HyFlex environments or overseeing simultaneous synchronous and asynchronous cohorts imposes a significantly higher cognitive load on kaiako. They must track engagement analytics, provide highly personalised and timely feedback, and master new technologies. The case studies reveal that successful blends require targeted professional development, institutional instructional coaching, and dedicated time allowances to prevent educator burnout and ensure quality facilitation.
- **Resources:** Learning materials must be intentionally designed for accessibility, reusability, and dynamic engagement. Static content is insufficient; instead, models rely heavily on interactive narratives, multimedia assets, and authentic datasets hosted on robust learning management systems. Addressing equity is a consistent theme, with institutions providing loan laptops, offline-capable mobile apps for rural learners, and accessible document formats to ensure all ākonga can engage with the resources regardless of their location or internet reliability.
- **Timetable:** Rigid traditional semesters are increasingly being replaced by modular, flexible scheduling. Timetables are adapted to the learners' realities, such as Primary ITO aligning study modules with farming seasons, or SIT running evening classes specifically for working professionals. While asynchronous elements offer 'anytime' convenience, fixed assessment due dates and strategically placed synchronous sessions provide necessary pacing and structure, helping learners manage their time effectively and avoid procrastination.

- **Assessment:** Blended models demand a shift away from traditional, recall-based exams toward authentic, work-integrated, and formative assessments. Case studies frequently feature project-based tasks, such as creating learning design blueprints or compiling GIS mapping data, which apply directly to the learner's actual workplace. Continuous formative assessment and automated feedback loops are crucial for keeping online learners on track and boosting their confidence. Furthermore, assessments are evolving to ensure academic integrity in the age of generative AI by focusing on contextual, applied tasks.
- **Institutional ākonga success services:** Academic support alone is insufficient; comprehensive wrap-around care is critical for blended learning success. This includes culturally responsive support, mental health counseling, IT help desks, and specific disability services. The most effective models integrate these services directly into the learner's digital environment, utilising data analytics to trigger early interventions for disengaged ākonga. Providing localised, face-to-face support options, such as regional campuses or dedicated mentors, complements the online distance learning experience.

Advice for blended learning designers

When building a blended learning model, start by actively designing the experience holistically rather than simply bolting technology onto a traditional course to avoid creating a disjointed 'Frankencourse.' Focus relentlessly on your specific learners' contexts and daily realities. If your audience consists of remote workers or adult learners, prioritise asynchronous flexibility but scaffold their digital literacy and self-regulation skills early on. Never assume ākonga instinctively know how to navigate online platforms; build in robust onboarding processes, clear communication, and introductory confidence-building tasks to set them up for success.

Do not underestimate the impact of the blended model on your educators. Transitioning to highly flexible delivery is cognitively and administratively demanding. Ensure kaiako are supported with dedicated time abatements for resource development, continuous professional coaching, and manageable class sizes. When educators are overwhelmed by managing live physical classrooms alongside digital chat streams and asynchronous engagement tracking, the learning experience degrades for everyone involved.

Ensure your resources and assessments are fit for a blended purpose. Move away from content-heavy lectures toward concept-driven, interactive, and multimedia materials. Design authentic assessments that allow learners to apply theoretical concepts directly to their own workplaces or real-world scenarios. This strategy not only makes the learning immediately valuable but also naturally builds resilience against generative AI shortcuts by requiring highly contextualised, personal application.

Finally, recognise that a successful blend must align across the micro, meso, and macro levels of your organisation. A brilliant teaching strategy at the micro level will face constant friction if it is not supported by meso level departmental policies or macro level institutional funding, IT infrastructure, and equity initiatives. Secure organisational buy-in, leverage centralised instructional design teams where available, and ensure institutional success services are highly visible and easily accessible within the digital learning environment.

Prompt two

[PDF uploaded]. Provide some general comments about the case studies, particularly including advice for those preparing their own as a means of designing their own blended learning models.

Gemini Pro 3.1 (Extended thinking) response:

Preparing a case study using the six factors of the Blendagogy Framework serves as a highly effective diagnostic and design tool for any new educational initiative. The compiled case studies illustrate that blended models are inherently diverse and highly contextual; what improves outcomes in one setting rarely transfers directly to another without significant modification. They also demonstrate that clearly describing how a model functions in practice is far more valuable for sharing ideas and refining designs than attempting to brand it with specific terminology.

For those drafting their own case studies to design or refine a blended learning model, consider the following approaches:

- **Draft the six factors:** Write roughly 400 words detailing each of the six key factors: ākonga activity, kaiako activity, resources, timetable, assessment, and institutional success services. This specific format forces a concrete, well-rounded description of the actual teaching and learning dynamics, which helps uncover operational gaps before the model goes live.
- **Map the three levels:** Explicitly identify the constraints and opportunities at the macro (institutional), meso (departmental or qualification), and micro (classroom) levels. Recognising how macro level IT policies or funding restrict meso level assessment choices allows for much more realistic and viable micro level teaching strategies.
- **Evaluate through localised data:** Ground the model's ongoing refinement in structured feedback. Applying rigorous evaluation techniques, such as running a sentiment analysis on workshop data across locations like Auckland, Wellington, and Christchurch, can provide essential insights into how regional nuances and differing local support structures impact the actual learner experience.
- **Prioritise description over labels:** Focus the narrative on the practical mechanics of the blend. Detail exactly what the learners and educators are expected to do and how the resources are distributed, rather than trying to neatly fit the design into rigid, quickly dated categories.
- **Focus on the learner's reality:** Ensure the case study accurately reflects the ākonga perspective, particularly regarding the genuine flexibility they are afforded, the pacing of the timetable, and the specific digital literacy skills they will need to successfully navigate the blend.

Prompt three

[PDF uploaded]. List and illustrate six key ideas that designers of blended learning models should apply when designing. Be entirely pragmatic; prioritise concrete steps over generalised principles.

Gemini Pro 3.1 (Extended thinking) response:

- **Sync the timetable to the learners' reality.** Ditch the rigid institutional semester if your learners are working professionals. Look at their actual schedules, whether that means aligning modules with farming seasons or opening evening synchronous slots, and set assignment deadlines that allow them to balance work and life.
- **Diversify content formats proactively.** Do not just upload a massive text file and expect high engagement. Transform standard documents into multiple accessible formats; for instance, you can use 'Audio Overview' features to convert text-heavy PDF files into conversational audio formats, allowing busy adult learners to listen while commuting or walking.
- **Audit and prune your technology stack.** Avoid building a disjointed 'Frankencourse' by bolting on too many different applications. Every new login creates friction, so pick a single reliable learning management system and one primary communication tool, fiercely protecting the learner's cognitive load by eliminating redundant software.
- **Scaffold learning from the ground up.** When designing the sequence of asynchronous modules, strip the subject matter down to first principles rather than relying on assumed heuristics. Build these foundational concepts step-by-step in the online environment before bringing learners into a synchronous space to tackle complex, collaborative problems.
- **Script a deliberate communication rhythm.** Do not leave pastoral care to chance. Write a specific communication schedule that maps out exactly when to send encouraging announcements, automated check-ins, and assignment reminders, intentionally timing these messages to hit during the known high-stress points of the course.
- **Localise your evaluation data.** Generic completion rates often mask underlying equity or usability issues. Run a sentiment analysis on workshop evaluation data across specific learner locations, such as Dunedin, Palmerston North, or Wellington, to pinpoint exactly how regional differences in connectivity, travel time, or local hub support are impacting the actual learning experience.

Prompt four

[PDF uploaded]. Critique the usefulness of the Blendagogy Framework. Highlight case study examples where the four objectives, six factors, and three levels are contradicted or irrelevant, and suggest an improved collection of considerations.

Gemini Pro 3.1 (Extended thinking) response:

The Blendagogy Framework presented in the text provides a structured, idealistic lens for designing blended learning by aligning four objectives, six factors, and three levels. While conceptually robust, its utility is frequently undermined by the messy realities of institutional constraints, funding models, and human resourcing. An analysis of the provided case studies reveals multiple instances where the framework's core components are contradicted, irrelevant, or mutually exclusive in practice.

Contradictions within the four objectives

The framework posits that blended models should optimize availability, inclusivity, scalability, and sustainability. In practice, these objectives frequently cannibalise one another.

- **Scalability vs. pedagogical quality:** The framework assumes blended models can adapt to increased demand time- and cost-efficiently. However, Future Skills' Formative Blended Learning model requires highly customised, manual weekly feedback letters from kaiako, creating explicit 'barriers to institutional scaling.' Similarly, Ara's New Zealand Certificate in Adult and Tertiary Teaching relies on a HyFlex model that caps its effectiveness at roughly 22 ākonga (10 online, 12 in-person) due to the cognitive load on kaiako.
- **Scalability vs. licensing constraints:** Southern Institute of Technology's (SIT) GIS micro-credential strictly caps class sizes to align with ArcGIS software licensing structures, avoiding the operational costs of unused licenses. This strict financial parameter directly blocks the scalability objective.
- **Sustainability vs. macro level volatility:** The framework treats the macro level institution as a stable foundation for the 'sustainable' objective. NorthTec's Learning Hubs pilot successfully increased access and flexibility for regional ākonga, but was ultimately shut down due to management changes, sector restructuring, and a lack of ongoing funding. Pedagogical sustainability is moot without institutional financial security.
- **Availability vs. regulatory compliance:** Open Polytechnic's Bachelor of Teaching requires 140 days of school-based learning and mandatory practicums mandated by the Teaching Council. This strict external regulatory requirement overrides the framework's 'available' objective, forcing ākonga to align with fixed local school schedules rather than studying whenever and wherever it suits them.

Friction across the six factors and three levels

The framework attempts to cleanly separate teaching dynamics into six factors and three operational levels, but the case studies highlight significant overlaps and irrelevancies.

- **Irrelevance of standard timetables:** The 'Timetable' factor struggles to account for highly individualised, workplace-driven pacing. In Primary ITO's work-based learning model, there are no cohorts or traditional semesters; learning is dictated entirely by

farm seasonality, such as calving or mating seasons, rendering standard institutional timetabling irrelevant.

- **Kaiako activity constrained by macro employment:** The framework outlines 'Kaiako activity' as a distinct factor primarily influenced by the micro level. Yet, across multiple case studies, kaiako activity is severely constrained by macro level employment models. SIT's GIS programme relies on industry practitioners on casual, fixed-hour contracts, making it difficult to onboard them into complex HyFlex teaching methodologies without pushing them beyond their contracted hours.
- **Institutional ākonga success services disconnect:** In the NorthTec/Open Polytechnic Cross-network delivery pilot, automated success communications generated by the macro level Open Polytechnic were often irrelevant or misleading for NorthTec learners (e.g., inaccurate withdrawal messages triggering at the wrong times). This highlights a fracture between the framework's centralised success services and the realities of a meso level regional partnership.

Suggested improved collection of considerations

To improve the utility of the framework, the rigid matrix of objectives, factors, and levels should be replaced, or heavily supplemented, with an adaptive collection of operational considerations that address the actual friction points of educational delivery:

- **Technological & commercial viability:** Before assessing pedagogical scalability, designers must explicitly evaluate software licensing structures, digital infrastructure limits, and hardware deployment costs (e.g., laptop loan pools).
- **Kaiako capacity & employment realities:** Factoring in contract types (casual vs. permanent), onboarding time, and the extreme cognitive load required to manage multiple modalities simultaneously. A model cannot be considered sustainable if it relies on kaiako burnout.
- **External regulatory & contextual anchors:** Acknowledging that external compliance (like Teaching Council practicums or agricultural seasons) will completely dictate the timetable and assessment factors, superseding internal pedagogical goals for flexibility.
- **Digital literacy as a gateway constraint:** Recognising that inclusive design is fundamentally limited by the actual digital competency of the ākonga and workplace verifiers. Models must provision for targeted, intensive tech-onboarding rather than assuming digital delivery automatically creates inclusive access.

While the Blendagogy Framework offers a strong theoretical foundation, it treats educational design as a frictionless environment. By shifting the focus toward these practical, operational friction points, institutions can design blended models that survive the realities of funding cuts, licensing caps, and human limitations.



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Blendagogy: The Art and Science of Blended Learning Design is an important contribution to contemporary education discourse. This book draws on case studies from Aotearoa New Zealand's vocational and tertiary sector. In this book, Mark Nichols and the contributing authors move beyond an abstract theoretical discussion to show how thoughtful blended-learning design can expand access, strengthen inclusion and support institutional resilience.

Central to this work is the very practical Blendagogy Framework, which connects four strategic objectives: availability, inclusivity, scalability and sustainability. It also proposes six design factors and three interdependent levels of practice. This provides designers, educators and educational leaders with clear language for gauging learner experience, teacher activities, relevant resources, assessment and institutional support.

The book's recognition that blended learning is not merely a matter of technology and logistics is particularly welcome. It is shaped by context, relationships, culture, professional capability as well as clear organisational commitment. This very accessible collection combines candid reflection with practical insight and invites adaptation rather than imitation.

I warmly commend this scholarly work to educators, educational leaders and decision-makers throughout the Commonwealth and beyond.

Professor Peter Scott

President and Chief Executive Officer of the Commonwealth of Learning



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