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*People, Partnerships and Pedagogies*

## Bichronous pedagogy in ODFL: A developing case-study in initial teacher education

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This developing case-study from the Initial Teacher Education suite of programmes at the Open Polytechnic | Te Pūkenga, Aotearoa, New Zealand, describes how synchronous elements are added to an asynchronous delivery model to create bichronous delivery for Open, Distance and Flexible Learning (ODFL). From 2017 onwards, ODFL principles underpinned a wholly asynchronous delivery model at the Open Polytechnic that championed ākonga (learner) agency through anytime anyplace access to tertiary education. This delivery model, successful in removing the conditions of time and place, created a consequence of relational distance, with limited real-time academic presence and peer-peer interaction. The new ITE programmes, opening in 2023, provided an opportunity to introduce synchronous elements within the asynchronous model. These elements were predicated on the principles of ODFL aligned to the values of cultural responsiveness: whakawhanaungatanga (relational connections), manaakitanga (respect and care), rangatiratanga (self-determination), and akoranga (reciprocity of teaching and learning). Early experiences suggest that introducing synchronous elements to asynchronous ODFL provides opportunities for real-time communication, enhances relational connection, and reduces the negative consequence of relational distance and isolation sometimes experienced in asynchronous pedagogies.

Keywords: Bichronous Pedagogy, ODFL, Cultural responsiveness, Initial Teacher Education

### Introduction

Bichronous pedagogy is said to combine the strengths of asynchronous and synchronous delivery components (Martin, Kumar, Ritzhaupt, & Polly, 2023) to provide, ideally, a seamless, cohesive, and multifaceted ODFL experience. Bichronous pedagogy has emerged largely in response to the development of Emergency Remote Teaching practices (ERT) (Bozkurt & Sharma, 2020; Wilson, 2023) influenced by the Covid 19 pandemic and the co-evolution of strategies that seek to meet the changing needs of ākonga amid this context. It is a practical response to enforced restrictions on face-to-face learning imposed by Covid-19 (Mohammadi, 2023), one that also occasions fears of loss of relational presence of facilitators and consequent loss of engagement by learners (Wilson, 2023). In ODFL, where relational presence is manifested and experienced differently from an on-campus environment, an already asynchronous delivery model may find advantage in adding synchronous elements. Martin, Polly, & Ritzhaupt (2020), describe this movement as a way of maximising the advantages of both modes while reducing the challenges of asynchronous learning, namely, those of limited relational connections with tutors and peers, and of immediacy of responsiveness. As an emergent pedagogy, limited literature is currently available and is dominated by studies focussed on fully synchronous delivery adding asynchronous elements to mitigate changing needs and environmental challenges (Mohammadi, 2023; Alblooshi, 2021; Brzezinska, 2022). Our search found no literature that explores the opposite context, adding synchronous elements to an asynchronous delivery model. This paper seeks to address that gap by setting out an example of a developing bichronous pedagogy in an established ODFL environment. This developing pedagogy also adds value in exploring the rich interface between ODFL and cultural responsiveness.

### Background

Initial Teacher Education is a discipline traditionally delivered in synchronous, on-campus conditions. The Open Polytechnic's distance initial teacher education provides opportunities for non-traditional (Shillingford & Karlin, 2013) tertiary learners, those living rurally or returning to education later in life, to enter the teaching profession while sustaining adult responsibilities and ties to local communities. Degree and diploma conditions include three compulsory synchronous elements alongside asynchronous delivery of course materials and assessments. In 2017, the Open Polytechnic | Te Pūkenga transformational blueprint championed the benefits of a wholly asynchronous experience where ākonga could enrol and progress through their studies at a time, place, and pace of their choosing. Over the coming years, Open Polytechnic delivery model progressed on that basis, with the expectation of achieving a fully asynchronous, anytime anywhere/when experience, delivered through the purpose built iQualify

learning platform, and facilitated by academic staff. Five years on, with the asynchronous model firmly established, courseware development and the learning platform functionality incorporates learning material, interactive formative activities, and summative assessment. Some peer to peer and ākonga/academic asynchronous interaction is enabled through purpose directed talk channels. As noted and well-understood, environmental conditions have changed in recent years, simultaneously, ākonga expectations have changed. Recent ākonga feedback from survey and advisory groups calls for more consistency in delivery, more peer-to-peer interaction, and more direct and timely access to individualised academic advice and guidance. Contextually, the forced adoption of new teaching modalities in campus-based environments (Martin, et al., 2023) has driven a shifting body of ākonga to choose a fully ODFL delivery (Viriya, 2022), where prior to Covid-19, might have chosen a campus-based face-to-face experience. New technologies, not available at the time of 2017 transformation, can now enable greater flexibility and openness while further enhancing the ‘distance’ principle of ODFL. Since 2020, Aotearoa, New Zealand Government tertiary education priorities, directed through the Tertiary Education Strategy, and New Zealand National Education and Learning Priorities (NZ Government, 2020) have demanded institutional attention to identified priority learner groups, those who have been previously disadvantaged in education. In Aotearoa New Zealand, these groups are Māori, Pasifika, and disabled learners. In ODFL environments, this creates opportunity to explore the values of cultural responsiveness in ways that meet the needs of the individuals within these groups beyond traditional face-to-face learning environments.

## **Methodology and ethics**

As a developing case-study this concise paper provides descriptive commentary on an evolving pedagogy. The paper includes researcher reflections but no quantitative data analysis. As no participant data is included, no ethical approval has been sought or obtained. The researcher bears personal responsibility for the reflections and claims made.

## **Bichronous pedagogy**

In describing bichronous pedagogy, it is important to recognise its evolution through and across the stages of technology-enhanced development in pedagogy, taking elements from some and rejecting others. For example, bichronous is not ‘blended’ in the traditional sense. A blended pedagogy combines content and delivery in structured ways, expecting equal participation in both, usually with predetermined content and presentation delivered synchronously and asynchronously (Yamagata-Lynch, 2014). Other essentially asynchronous models sometimes force compulsory synchronous on-line group activities to meet collaborative learning outcomes. Through our own experience, supported by learner feedback, and course completion data, these activities rarely produce satisfactory outcomes or experience. Alblooshi (2021) defines asynchronous on-line learning as having all content delivered on-line with no synchronous components, and synchronous on-line learning as that which largely substitutes for traditional face to face delivery. Bichronous pedagogy is the merging of synchronous and asynchronous forms in a way that offers the advantages of both. At the Open Polytechnic | Te Pūkenga, the delivery mode designed in 2017 understood learner agency within the context of the principles of ODFL. Being ‘open’, ‘distant’, and ‘flexible’ meant facilitating access to tertiary education through solely asynchronous means that allowed learners to determine their own time, place, and pace of learning (within the institutional structures of tertiary education in Aotearoa, New Zealand). The bichronous pedagogy of this example continues and expands the principle of agency, which, as Giddens (1984) describes, is the capacity to act differently while recognising the constraints of institutional structures or conventions. Such developments as bichronous pedagogy now emerge through a complex dynamism of institutional and environmental norms, changes enforced by external challenges, exponential technological advances, and the evolving needs of learners. Easing synchronous elements into an asynchronous model requires careful and cautious navigation of these principles. Does bichronous pedagogy enhance or compromise autonomy and agency? Is the introduction of synchronous elements meeting learner expectations or compromising them? Is a bichronous pedagogy more culturally responsive to differentiated needs than conventional modalities? The essential question: does bichronous pedagogy realise transformation through increased agency, enhanced experience, more choice, and better outcomes? This developing case-study troubles these questions and purports that an intentionally developed bichronous delivery model can uphold the integrity and principles of ODFL, balance the tension between agency and time-bound structures, and enrich the learning experience in ways that meet current and future-focussed expectations. The model tested and described in this paper is designed with those aims, intentions and for the purpose of establishing guidance and kaupapa (guiding practice) for the introduction of synchronous elements into an asynchronous design.

*Elements of the ODFL bichronous model designed for initial teacher education programmes.*

In developing this bichronous model, designed for the specific context of Initial Teacher Education, we bring together the principles of ODFL with the values of cultural responsiveness. Understanding ‘open’ as

manaakitanga encapsulates the responsibilities of welcome and warmth, shelter, and safety within this modality of learning. Privileging whakawhanaungatanga, the process of relational connections, as a guiding value, closes the ‘distance’ in ODFL, addressing feelings of isolation and loneliness. The value of rangatiratanga incapsulates the autonomy, agency, and self-determination of ‘flexible’ and the value of akoranga encapsulates the reciprocal nature of learning and teaching in the process of ‘learning.’ ODFL / MWRA locates this bichronous model within the values of the institutional and educational contexts of Aotearoa, New Zealand, guiding the intent and aims of the model and drawing attention to the aspirations inherent in transformative pedagogies.

**Table 1: Bichronous Delivery Elements: the synchronous and asynchronous elements of the Initial Teacher Education programmes opened in Feb 2023**

Bichronous Delivery Elements	
Asynchronous	Synchronous
Course materials, tasks, digital content, formative assessment	Virtual orientation session each programme offering (recorded for anytime access)
Compulsory summative assessment	Weekly Office hours – live virtual individual and group drop-in sessions with facilitator
Talk channels: announcements, general, assessment, library & learning, private facilitator support. (Ākongā and facilitator led)	Virtual course specific tutorials Compulsory Programme requirement
Pulses “how are you feeling?” (Facilitator led check-in)	Noho marae (kanohi ki te kanohi) Compulsory Programme requirement
Weekly posts (facilitator led information and guidance)	Classroom visit - On Practicum Compulsory Programme requirement
	Virtual open conference in-school practicum experience debriefs

The compulsory elements of programme requirements: assessments, noho marae, visiting academic practicum visit, and subject specialist tutorials are shaded grey. The added synchronous elements are shaded green, all unshaded elements are existing asynchronous, non-compulsory aspects of the ODFL delivery model.

### Early experiences

The first programme cohorts had small numbers of learners, 33 were accepted into the four programmes offered in February, most were new to the Open Polytechnic having not previously studied on the iQualify learning management system. The first learners included 6 who identified as Māori, 4 who identified as Pasifika, and 1 self-identified as disabled. The programmes were facilitated by newly appointed academic staff, recruited for their subject matter expertise and teacher education experience. They had not previously facilitated in an ODFL environment. Each of the three elements added to the delivery model were imagined and created as practical applications of the values of manaakitanga, whakawhanaungatanga, rangatiratanga or akoranga. In this imagining, these elements must not compromise the principles of ODFL, they must be available in an asynchronous form if general information might have benefited all learners, they must be voluntary / non-compulsory, and must not impact on grades. In essence, the introduced elements would intentionally enhance relational connection, provide increased access to academic advice and guidance, and serve as way to facilitate peer to peer connection.

#### *Element: Virtual On-line Orientation*

The on-line orientation session aligned the values of whakawhanaungatanga, manaakitanga, and akoranga in providing an opportunity to establish early relational connections between ākongā and facilitators, while delivering information about the programmes and study expectations. These orientation sessions were planned for the opening week of course offerings and timed for early evenings to allow for adult learner availability. Learners received the link to the meeting by email, approximately one week before the planned session. We expected this early face to face connection would be an opportunity to get to know each other, explain our roles and communication channels, surface questions and any areas of uncertainty or anxiety. The kaupapa for these sessions was to ensure they were mana enhancing (respectful and protective) of ākongā, with the aspiration of facilitating their confidence and preparedness for engagement and success. Attendance for these first sessions was high, but ākongā participation seemed restrained, there were few questions and limited responsiveness from ākongā, other than that which was directed by us. Was this because they understood everything or were they self-conscious in the on-line meeting? Had we dominated the agenda, had we had given too much or too little information? These first sessions seemed to be dominated by ourselves, leading the agenda, delivered by way of a shared screen PowerPoint presentation. Importantly, we felt, the opportunity for establishing an early relational

connection was achieved and communication channels opened. In protection of rangatiratanga, the sessions were recorded so that ākonga unable to attend could view them asynchronously. We could not know or measure the impact of the orientations in influencing confidence, preparedness, or engagement. A second programme offering a few months later allowed us to repeat the orientation session, timing it for week three of the offering, rather than week one. In this offering a smaller number (5) ākonga attended, as it was a smaller intake of ākonga (16) accepted into the programmes. Already three weeks into their studies, these ākonga had many questions and noticeably higher participation in the event. We felt the timing difference had improved the interaction, but confidence to participate may also have been influenced by the smaller numbers.

*Element: Virtual Office Hours – individual and group*

We added virtual office hours using a booking calendar system. This element aligned the values of rangatiratanga, manaakitanga and particularly akoranga in providing academic support through virtual kanohi ki te kanohi access to academic staff at regular times throughout the week. Two time slots for individual appointments and one time slot for group drop-in sessions were allocated to each academic staff member facilitating courses on the programmes. Virtual office hours provide opportunity to access advice and guidance from academic staff, privately or in group drop-in session. The individual appointments were 20 minutes long and the group drop-in 60 minutes available duration. Through this means ākonga could have consistent access to advice and guidance when required.

We found the office hours well utilised by individual ākonga, especially in the weeks leading up to an assessment. In the first six months of delivery 57 individual appointments were made. During those sessions, through virtual links booked in advance by ākonga, we strengthened relational connections made through the orientation sessions, provided individualised feedback, academic advice, and reassurance. We felt we got to know the ākonga who participated in sessions, we looked forward to these engagements, were energised by them and rewarded through the increased confidence of ākonga who participated. The group-sessions, however, were not well supported by ākonga, only one was attended throughout the first six months of delivery.

*Element: Virtual Open Conference – in school practicum debrief*

We planned one virtual conference for the first programme intake, to occur at midpoint during ākonga first practicum experience and before the in-school visit. This element aligned with the values of whakawhanauatanga, manaakitanga, and akoranga, creating an opportunity for peer interaction through sharing their experiences - the highs and lows of practicum – and the opportunity to feel connected to the support of others. For this element we used a different technology from the ākonga led group booking system, setting an evening time slot, and sending an email link to the virtual meeting two weeks prior to the date. We followed this up with talk channel messaging to remind and prompt ākonga to attend. The event attracted 50% of ākonga currently on placement for practicum and participation from those ākonga was animated. We handed over the agenda to the ākonga, while guiding the timing and ensuring everyone had the opportunity to contribute and leaving enough time for questions about the practicum visit. We felt excited after this session, the experience was positive and relationship connections were strengthened between peers and academic staff. The success of this session led to review of the group booking time slot under the office hours element. We concluded that a group session needed a specific purpose and an invitation to attend. It seemed that ākonga wanted and utilised individual access to academic staff particularly in preparation for assessment, but group interaction needed a purpose. To this end, we changed the group booking time slot to an additional individual appointment booking and developed a calendar for purpose directed open conferences. These open conferences supported preparation for the noho marae experience and practicum placement.

## **Conclusion**

This case study draws on early experiences in a new set of programmes specific to initial teacher education in ODFL, a discipline more traditionally delivered in kanohi ki te kanohi (face to face) tertiary learning environments. ODFL delivery of initial teacher education allows non-traditional ākonga entry to the profession without compromising other responsibilities, such as whānau and mahi. We set out to determine whether adding synchronous elements to an asynchronous delivery model as bichronous pedagogy could reduce potentially negative impacts of poor relational connections, limited peer to peer interaction, and lack of academic responsiveness sometimes experienced in purely asynchronous ODFL delivery. The three synchronous elements added to the delivery model were developed as practical applications of manaakitanga, whakawhanaungatanga, rangatiratanga and akoranga, aligning culturally responsive values with the principles of open, distance and flexible learning with the intention that these would strengthen and enhance those principles, without compromising their advantages. This case-study is limited by the immaturity of the programme delivery, being in its first offering at the time of writing. No outcome or evaluation data is yet available and, as this is a new set of

programmes, no comparative outcome data with the same programme in ODFL delivery will be available. Ākonga feedback is limited to the anecdotal and therefore unsubstantiated. Academic staff experience is also evolving as our practise with the first delivery evolves, we have no comparative experiences to draw from. Implications from this study point the importance of taking small steps in introducing synchronous elements into an established asynchronous model, checking that the values and principles of that model are enhanced, and not compromised. There are implications related to Academics' workload and availability balanced against ākonga expectations not addressed here, that do require deeper exploration. The lack of participation for voluntary group bookings suggests and supports the notion that on-line learners may prioritise anytime anyplace flexibility over engagement with a learning community. There is opportunity to explore this further. However, these early experiences support the inclusion of synchronous elements alongside asynchronous ODFL provision. We can attest to the success of the additional elements through ākonga uptake and participation, clearly viable in individual appointment virtual office hours, orientation, and purpose directed open conference. This case study provides an example of bichronous pedagogy that combines the advantages of open, distance and flexible principles and the culturally responsive values of manaakitanga, whakawhanaungatanga, rangatiratanga and akoranga. Our early experiences support the finding that this small adjustment to pedagogy can reduce the disadvantages of ODFL, provide opportunities to enhance relational connections, facilitate access to academic advice and guidance and reduce feelings of isolation sometimes experienced in ODFL. Further adaptations of the additional elements, fine-tuning their practical application, alongside gathering uptake and evaluation data is required to substantiate these early findings.

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