Reusing Distance Courseware to Enable Blended Delivery: A New Zealand Case Study

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ABSTRACT

Digital distance course materials can be used across different forms of education delivery. In particular, courseware designed for asynchronous digital distance education can serve as the basis for blended learning, which features a different teaching role and fuller interpersonal experience. Blended learning can be used to extend programme opportunities across population regions where a full, lecture-based model might not be viable. This case study explores the experiences of three regional polytechnics in New Zealand that adopted and modified courseware created for digital distance learners studying asynchronously. The courseware was used to provide local students with more flexible study options, drawing on high quality courseware that had been centrally created by a team of experienced courseware designers and Subject Matter Experts (SMEs).

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CONTEXT

The reuse of educational resources has long been an aim of higher education providers. A Reform of Vocational Education (RoVE), initiated in New Zealand in 2019, provides a unique opportunity to see how educational resources might be shared across a network of regional, face-to-face education providers drawing on courseware developed by a dedicated, national provider of digital distance education. One of the key outcomes of the RoVE is the development of unified programmes, whereby common programmes of study and course descriptors are used across a broad regional network. A set of courseware developed for distance delivery, then, becomes immediately relevant to the learning outcomes also used in on-campus delivery,

The network of providers includes the Open Polytechnic business division (from here on simply 'Open Polytechnic' or 'the division'), a dedicated ODFL (open, distance and flexible learning) provider with a national mandate, which began correspondence education as the Technical Correspondence School (TCS) in 1946 (Dougherty, 1999). Since 2015, Open Polytechnic has developed ODFL courses under a deliberately digital strategy that eschews both textbooks and print provision. The design, development and delivery of the division's courseware is such that independent, anytime, high quality, and highly scalable education is available all across New Zealand.

The Institutes of Technology and Polytechnics (ITPs) in New Zealand are consolidated into a new national body, Te Pūkenga, as of 1 January 2023. The bringing together of the previously independent ITPs brings with it significant opportunity for improved access, flexibility and scalability across the nation. By legislation, Te Pūkenga is required to offer 'on-the-job', 'face-to-face', and 'distance delivery' among its activities (Education (Vocational Education and Training Reform) Amendment Act, 2020, sec. 22).

Open Polytechnic has been working with ITPs across New Zealand for some time. In anticipation of its courseware supporting regional learners across the Te Pūkenga network, an investigation took place into the experiences of three face-to-face ITPs using the division's courseware to extend and complement their existing curricula through blended delivery. The vocational courses shared ranged from Level 3 to Level 7 on the New Zealand Qualifications Framework.

LITERATURE REVIEW

Much published literature on the subject of 'blended learning' relies on a socially-constructed understanding of the term (Cronje, 2020). Difficulties in terminology are well described in literature (Cronje, 2020; Fuller, 2021; Nichols, 2022; Oliver & Trigwell, 2005). Helpfully, blended learning is at least popularly defined as "an approach to education that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods" (Blended learning, 2023, para. 1). Operationally, and for the purposes of this investigation, blended learning involves digital distance courseware developed for independent, asynchronous learning used by face-to-face educators as the basis for their own, classroom-based delivery (Nichols & Seelig, 2022).

Blended learning has long been considered 'on the horizon', with a long evolutionary progress accelerated somewhat by the COVID-19 pandemic (Pelletier et al., 2021). The slow pace of traditional to blended learning may be explained by the observation that "a significant proportion of faculty in higher learning institutions have little formal teaching development and experience" (Vaughan et al., 2017, p. 103). Yet, despite various professional development programmes and learning communities to assist faculty to effectively deliver blended teaching (Terry et al., 2018; Vaughan et al., 2017), uptake pre-COVID-19 has seemed sluggish despite its apparent popularity (Kastner, 2020).

Successful institutional adoption of blended learning requires an all-of-institution commitment, an integration based on "the institution's ability to adapt its teaching and administrative strategies and promote collaborations among all stakeholders" (Calderon et al., 2012, p. 23). Perhaps this explains the apparent acceleration of blended learning through COVID-19: institutions suddenly had every imperative to align strategies in support of blended approaches to tuition. However, the changes accelerated by COVID-19 are not necessarily irreversible (Erdem-Aydin, 2021; Reynolds & Chu, 2020). Firm and intentional institutional support is

required for any adaptation of teaching and learning models (Calderon et al., 2012; Nichols, 2020, 2022).

Literature suggests that a sense of control or ownership by academic staff over content and format is critical to the successful outcome of blended learning (Kastner, 2020), and studies measuring academic staff satisfaction with blended learning tend to assume teachers have had a role in developing the courseware and planning the 'blend' (Calderon et al., 2012; Kastner, 2020). Student feedback is also recommended for evaluating the success of blended learning (Calderon et al., 2012).

A helpful summary of lessons learned in blended learning adoption is provided by Vaughan et al., whose reflections summarising a series of international case studies are worth citing at length:

> The benefits identified for faculty members... were that they became more reflective of their teaching practice and began to make a role adjustment from being a content provider to a designer and facilitator of learning for students. The biggest challenge appeared to be a lack of common institutional definition and understanding of blended learning as well as a lack of time and resources to support faculty in the redesign of their courses... [There is a] need for all institutional stakeholders to be involved in supporting the initiative... blended learning does not simply imply adding digital technologies to an existing face-to-face course. (Vaughan et al., 2017, p. 103)

Matters of definition, academic staff development and preparedness, institutional support and strategic alignment seem key to a successful and enduring rollout of blended learning.

The difficulties of definition do, unfortunately, complicate the discovery of literature related to using courseware intended for asynchronous, digital distance education as the basis for blended learning. This could be in part because blended learning takes place within "complex adaptive systems that feature the emergent property" (Dziuban et al., 2018, p. 12). The fragmentary nature of blended learning literature more generally, coupled with a high context-dependency of practice, promotes context-limited studies and qualitative methodologies to the researcher (Creswell, 2014).

STUDY PURPOSE AND METHODOLOGY

Motivated to extend choice to local learners quickly and sustainably, several ITPs worked with Open Polytechnic to offer blended delivery based on the latter's digital distance courseware. To support extending this approach across the new Te Pūkenga network, Open Polytechnic sought to investigate the experiences of teaching staff, key decision makers and other ITP staff involved in supporting the initiative.

This case study describes the experiences of those academic, managerial and professional teaching-associated staff at regional ITPs adopting asynchronous, digital distance education courseware as a foundation for localised blended learning. A case study is a methodology where a situation is "studied in detail, using whatever methods and data seem appropriate" (Punch & Oancea, 2014, p. 147). More specifically, a case study "'investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident', and which may 'use multiple sources of evidence' and 'theoretical propositions'" (Yin, 2009:18, cited in Punch & Oancea, 2014, p. 150).

To investigate the sharing of courseware, a series of interviews were held with key actors across three partnering ITPs, co-opting a phenomenological approach to capture the essence of individuals' experiences. Phenomenological research typically involves a sample of between three to ten (Creswell, 2014) and the "analysis of significant statements" (2014, p. 196). Critically for this study, teaching staff would be basing their activity on courseware they had not had a role in developing. While no students were interviewed, several interviewees commented on the student experience as they perceived it.

A semi-structured interview was used involving eleven participants, interviewed independently, drawn from three participating ITPs. The participants were three senior managers (one from each institution), three professional teaching-associated staff (from two of the ITPs), and five

teaching staff with varying levels of teaching experience and formal training. Between them the ITPs were using courses at a variety of levels ranging from certificate to degree. Questions were adapted to better structure the conversation with each participant group; the question guides were designed to promote open-ended responses on a range of high-level matters, inviting as much detail in response as interviewees thought to offer. The discussion guides were designed to touch upon these general questions of interest:

- How do teachers in other ITPs view, approach, adapt and modify their delivery support of Open Polytechnic courseware in their context?
- What do managers at other ITPs perceive to be the value of adaptations to Open Polytechnic courseware for the faculty and their students?

Each interview, lasting between 45 minutes and an hour, was recorded and transcribed. Transcriptions were electronically coded by an Open Polytechnic staff researcher using NVivo, with blind comparison made possible via an independent external researcher. Following their initial pass through the data the two coders met to discuss and develop these codes into themes. A third aligned researcher triangulated the results into a final set of themes.

In the interests of anonymisation the three ITPs are not identified. Each is a small-to-medium regional polytechnic in New Zealand, seeking to provide more options to local learners based on a long history of synchronous face-to-face learning, though with some previous experience in supporting locally developed blended learning programmes.

FINDINGS

The eight major themes are grouped into three categories as follows:

1. Organisational context:
   a. It just makes sense.
   b. Learning from experience.
   c. Bumpy topography.
2. Courseware and adaptation.
   a. Quality foundations.
   b. Assessing to the mode.
3. Teaching role:
   a. Embracing the 'fun'.
   b. Tailoring to me.
   c. It's all about the learner.

Quotations are given from the perspective of senior managers (M), professional support staff (P) and teaching staff (T).

ORGANISATIONAL CONTEXT

The initiative to utilise Open Polytechnic courseware was made by senior managers. The division's high level strategic objective was to enable blended learning models by providing regional ITPs access to high quality courseware and its iQualify learning management system. Adopting digital distance courseware designed for asynchronous learning, while having clear benefits, did result in some implementation difficulties.

IT JUST MAKES SENSE

Across all sample ITPs the adoption of digital distance courseware as the basis of blended learning areas was mandated by senior managers. In some instances, new curriculum areas were selected, the digital courseware in place for new teaching staff just appointed. A prime reason for taking this approach was the reduced cost and timeliness, because the requisite teaching resources were already available:

> "… if I ask one of my staff to write a 60-credit level 4 program based on this program approval document, it's like a year and a half worth of work. Why would you do that

when Open Polytechnic have already got awesome resources? It's just a no brainer." [M].

"Using Open Polytechnic courseware means [we] can run more courses. There's greater access for students and it's good for local communities" [M].

"… how do you get learning to reach learners when you start having cohorts of 6 to 8, and how do you do that in a financially stable way but also in a way that's kind of educationally sound?" [M].

Common to all three ITPs in this study was a desire to increase their economic viability while also increasing the range of courses on offer locally, for a low on-boarding cost. Further, the high costs of a full face-to-face education model usually require a student volume that might be difficult to find in low population areas. Making use of existing courseware allows geographically isolated students to be reached, as small student numbers suddenly become viable. This means opening access to more learners who otherwise wouldn't be in tertiary training because of their distance to a larger campus.

Finding the money and time to invest in the development of new programmes is "really tricky" [M], so a blended model based on pre-existing courseware made good sense.

"We often don't employ a kaiako [teaching staff member] until they're about to go live, and so having a SME [subject matter expert] available to do that pre-work can be a huge constraint" [P].

Another strategic observation by respondents was the preference of many learners to 'earn while they learn'. The blended delivery model made possible by Open Polytechnic courseware gave learners the option to choose to study when and where it suits them. At least one respondent saw this as aligning with the objectives of the RoVE:

"The Minister (of Education) has been really clear for this learning to happen in work, on campus, online, and being able to jump between it. So, I think you either get onboard with that, start heading in that direction, or you don't, and [we] clearly want to do that" [M].

It is clear from respondents that there are many strategic advantages in extending blended learning opportunities by building upon courseware designed for asynchronous digital distance learning. As one respondent stated, it is clear that ITPs from across New Zealand need to "get on board" [M] with blended learning.

LEARNING FROM EXPERIENCE

Respondents were clear that implementation was not entirely straightforward. Part of the difficulty was the timing of employing new staff to teach; while these new staff members were not required to develop an entire course's worth of resources, the role staff were to take was unclear and some new staff often lacked teaching experience.

While Open Polytechnic offers some high-level guidance for using its courseware for blended learning, it is up to individual institutions as to how they prepare their own 'blend'. Locally there was not always a clear blended learning strategy in place for teaching staff to refer to. Subsequently the use of Open Polytechnic courseware varied, even within the same institution. For some teaching staff the division's courseware was relegated to an online reference, while for others it became the backbone of the course. Interviews suggested a strong relationship between the depth of a teacher's formal training and experience, and their level of comfort with adapting the online courseware to create a blended course.

The first offering of the blended course was typically the most challenging:

"…it was bumpy, but it's the nature when you always deliver things for the first time because it was a lot of an unknowns for us as well. But that wasn't so much because of the material, it was more probably because of the timeframes that we tried to organise and run it within" [T].

Some respondents shared that they did not have much notice about their new teaching responsibilities. Others were not confident in their digital literacy, requiring direct support staff intervention and exacerbating the difficulties of learners also needing technical support.

While the asynchronous courseware provided by Open Polytechnic was viewed as a good starting place, it was clear that further adaptation was required for it to be applied synchronously:

> "[The courseware] … only needs a light touch to go through and just check everything else and update a few (things) here and there" [P].

> "… It just doesn't make sense to be replicating course design when a single version of the course could have activities [added to it] designed for synchronous learners" [P].

Creating activities for an asynchronous course to better suit blended learning was considered a demanding activity, however one respondent offered advice:

> "Have a plan in place to support the learners around the holes in the learning design for synchronous delivery, and make sure you have a strategy in place to address that and the needs of your learners. Just be aware that the [asynchronous] courseware itself isn't going to do that for a synchronous cohort" [T].

Implementation was also complicated by local student access to the internet, particularly in remoter areas. In addition to supporting domestic computer access teachers took the initiative to move face-to-face teaching time into computer laboratories or allowed students access to computer laboratories on-site when it suited them.

Some implementation difficulties resolved themselves as practice matured. For example,

> "We had problems using the Open Polytechnic course the first time - students needed face-to-face contact, the online material was awesome but just not for some students and the industry hours were a lot" [T].

For the second delivery of blended courses, face-to-face time tended to be increased and better applied. This "helped keep the cohort all together and up at the same space" [T]. The challenges of delivering the first time were also increased by the fact that face to face classes were not possible due to a national COVID lockdown.

> "… how we delivered it the first time round for our learners in our environment and in our context up here to how we delivered it this time around, it's like chalk and cheese. There's a vast difference in the way that it's happened and the student retention, the student success, the feedback from the students has all reflected that" [T].

Finally, the Open Polytechnic facilitator assisting the uptake of blended learning was singled out by many as integral to the adoption of blended learning: "… anything that cropped up we just went to [facilitator]. So [facilitator] was kind of our everything resource" [P].

The implementation issues disclosed by respondents were largely foreseeable, and in the cases cited here individual staff members developed their own solutions in response to the specific problems they faced. While the issues themselves might have been anticipated, the specific solutions benefitted from the first-hand experience of teaching staff and from the experience of the initial offering of the course. It is clear that successful blended learning involved much more than simply making digital courseware available; having a dedicated support person in place that regional ITPs could liaise with was critical.

BUMPY TOPOGRAPHY

Teachers with previous experience and digital literacy were best able to approach blended learning with confidence and require less support. In some instances, less experienced teachers abandoned the courseware altogether or used it as a form of online workbook, reverting to teaching methodologies they were familiar with. One respondent said they would be more comfortable using the courseware if it came with 'wraparound' teaching resources and 'how to' documents.

A frequently expressed concern by professional support staff was that teaching staff needed more mentoring, training, and workshopping if they were to successfully adopt a digital distance course to become a blended one. It was commented that some teaching staff want "everything already totally done for them" [P], whereas others had the perspective that teaching staff preferred to customise things for themselves. One respondent suggested that the perspective of senior managers tended to be dismissive of the challenges some new teaching staff face:

> "'They're the teacher, they can do it'... [but] You can't expect tutors to have that skillset out of nowhere either" [P].

The student context is also a varying one. In the words of one respondent:

> "It's been a real eye-opener how IT illiterate a lot of people [who come to us as learners] are" [T].

The contrast between Open Polytechnic students who sign-up for online courses and local students anticipating the classroom and face-to-face teaching was also remarked upon. Support staff at one institution believed that in their region, with a high Māori (indigenous) population, it was particularly important for students to connect with their learning community (including other students and teachers) face-to-face.

COURSEWARE AND ADAPTATION

The quality of Open Polytechnic courseware and online learning platform was universally rated as high, however there were some difficulties related to the assessment expectations of the asynchronous courseware.

QUALITY FOUNDATIONS

For the most part it was the ready availability of quality courseware on the business division's online learning platform that made the uptake of blended learning possible.

> "We identified that the Open Polytechnic platform was a resource that was working well in industry and also that Open Polytechnic course content was good" [M].

Respondents were unanimous in their appraisal of Open Polytechnic courseware as being of high quality, even though it required some adaptation for blended learning purposes.

> "Open Polytechnic courses are high quality and relevant to industry, if they stay that way, we will continue to use them" [M].

> "... [teachers] look at Open Polytechnic courses and go 'They've got this, I want to do that'. Because you guys have a whole team of learning designers who can do really cool things. We don't have that" [P].

The courseware did, however, require further adaptation for blended learning purposes as commented on elsewhere.

ASSESSING TO THE MODE

While the courseware was universally acclaimed, assessment tasks were difficult to directly transfer. For asynchronous distance learners, assessment tasks are designed to tightly match learning outcomes and provide evidence that require minimal face-to-face contact. In blended learning, lack of or limited face-to-face contact is no longer a constraint. Most ITPs adopted Open Polytechnic assessments with little to minimal changes. Similar to the motivators for using the courseware, time, cost and staff capability to create new assessments likely influenced this.

One ITP indicated that the mismatch of assessments from digital distance to blended learning was "a substantial issue when it comes to actual course approval... and pre-moderation" [P]. Managerial and professional support staff were critical of the tendency of Open Polytechnic to apparently over-assess, or else ask things of learners that did not match with their learning experience:

"... I can understand in some respects why Open Polytechnic is like that because when you're meeting with learners in person, there's so many judgments you can make about their progress that's different from when you're not meeting them" [M].

Individual teaching staff were able to make their own decisions as to when and how much to assess and which elements of the courseware to emphasise. Less experienced teachers were less likely to do this, relying on the business division's assessments and in-depth marking schedules and templates.

TEACHING ROLE

This third category relates to how teachers perceived blended learning, and how they adapted their own practice to better utilise the online and in-classroom possibilities. Teachers were quick to see the potential of having an entire set of resources available to them and, while not always getting it right first time, customised the use of those resources to complement their own teaching. All of this was motivated by the desire to place learners at the centre.

EMBRACING THE 'FUN'

For teaching staff, having an entire set of courseware available to them was a relief. Teachers were grateful not to have to prepare the resources themselves, "especially as they often get them just before the course is due to start" [P].

"It's such an incredible resource as a teacher, and I think people were pretty pleased that they wouldn't have to build an iQualify course from scratch, because that is quite scary for someone who really doesn't know how to use a computer at all" [P].

The term 'fun' is used in this theme with some irony as the first delivery of a course was akin to a jump into the unknown, however one benefit of the courseware being provided in full was that it took pressure off the need to teach didactically. Teaching staff had greater personal flexibility in their engagement with learners.

"It saves more than 50% of my time... I don't need to focus on writing content or how it's going to look; it allows me to focus more on the teaching strategies, than on creating content" [T].

The same respondent said that they would suggest that colleagues also use the Open Polytechnic material to free up their time so as to focus on better teaching. Another said that the flexible nature of blended learning allows them to focus on the "fun stuff" [T] such as building relationships; their advice to colleagues less enthusiastic about using courseware developed by others was:

"Don't force it, don't fight against it. Go with it, have fun... I had to do a talk to the other tutors because they're a little bit meh, and I said 'Look it's this way, they get the material, they get their assignments, you do all the fun [stuff]... I do like to think you get a better relationship because if you stand up there and preach for weeks and weeks it gets boring" [T].

Other staff were able to better update their existing delivery, as the business division's courseware gave them access to better quality materials than they had traditionally used.

Finally, that the teaching and learning was blended provided a more robust educational model. One ITP experienced a local disaster, and other respondents cited the disruption of COVID-19 that still had the potential to make the traditional classroom model untenable: "Now we have the ability to go, 'Okay, something adverse has happened, let's change it around'" [T].

TAILORING TO ME

Teaching staff tended to adapt their approach to complement the courseware as best suited them. Some wanted to adjust the course materials themselves; others considered changing the courseware as the responsibility of their institution, or the Open Polytechnic.

"… because [the students] already have the content in there… I can focus more on my teaching strategies, whether I want to do a group activity. The activities are in there but [if] I want to do them in a group… I'll send them to the whiteboard, 'OK listen students, we're going to answer this question on the whiteboard'" [T].

"I think no matter what you do there will be customisation required, whether it's around branding or localisation, to get that community context" [P].

From the perspective of the Open Polytechnic, sharing course materials involves a trade-off: either updates and corrections are made and shared centrally, and contextualisation of content is limited, or each ITP freely contextualises and maintains its own copy of the courseware. Some basic contextualisation was essential to make the courses fit for purpose, particularly in the area of assessment. For this reason, courseware was shared with the ability to edit. However, it was recommended that courseware edits be minimal so centralised updates would be less disruptive. Teachers typically understood this trade-off:

"I explain to [students] that the online platform is basically a contemporary workbook. You think of it the same way as you had your school books and you add all those other activities that you could do on the side, but you never did" [T].

Teachers were clear about the role the courseware would play in learner success:

"I said to my students '25% is what you read on iQualify, 25% is listening to me and the conversations we have in class, both those resources and then that extra 50% and build on that for your assessments. On the basis of that philosophy of mine being that of always taking the view if you read the material you're told to and turn up to class and listen to the lecture, you should pass.'" [T].

"Sometimes I use the examples provided by the Open Polytechnic course, sometimes I use my own examples to explain those concepts in there. And then we have the activities in the course that are very handy." [T].

The nature of the subject being taught was also a factor:

"Courses with a strong practical component particularly need a face-to-face component to make those online resources work appropriately for the students" [T].

Teachers were clear that the relationships formed with students in face-to-face classes was a critical component of their 'blend'. One teacher was lobbying to be able to deliver the first three months of tuition exclusively in class, followed by blended learning, so that their learners might become more comfortable with the courseware. Others were more confident in using analytics tools alongside the relationships they built with learners in face-to-face classes.

Teachers were remarkably adaptable in their practice:

"…the face-to-face stuff is quite important to a lot of people, and so when you make something completely online and the first time we delivered it, it was a lot more online - the second time we've made quite a lot of changes to it so there's more of a face-to-face component, but when it was fully online, you kind of lost touch with people a bit and that didn't help" [T].

Teachers were given only broad guidelines as to how they should make use of the courseware. They responded robustly, demonstrating the independence, adaptability and learner-centredness that might be hoped for.

IT'S ALL ABOUT THE LEARNER

While students were not interviewed first hand in this study, management, professional support staff and teaching staff all made reference to their own understanding of the student voice.

Learners experiencing blended learning anticipated face-to-face engagement would be a significant component of course delivery, characterised by cohort-building and creating a learning community. As one member of staff put it:

"… the courseware itself doesn't give opportunity to bring learners together. It's designed to be a standalone learning experience. We can wrap facilitation around that but it's still not bringing the learners together… It's like giving each of them a textbook and telling them to work through the textbook, which achieves the learning objective, but it doesn't give them what they tell us they need" [P].

Staff from all three ITPs expressed the belief that learners benefited from the sort of structured induction characteristic of traditional course delivery.

"It makes it more of a facilitated approach, in those initial stages, to give them that induction experience and to make sure they're prepared to go on with the self-learning where it's needed" [T].

Students who were struggling with course completion were also thought to benefit from greater face-to-face interaction, and so were given the opportunity to learn on-campus for greater guidance, where judged appropriate.

Another context in which students benefited from face-to-face interaction were courses with a strong practical application, providing opportunity for 'real life engagement'. Teachers tended to create intentional contact opportunities for learning, including onsite workshops, field trips and classroom sessions as part of the face-to-face blend. Flexibility in support of part-time learners with other responsibilities was also evident:

"We just work around their (learners') schedule… The first time I ran the course I don't think I had even one student that wasn't either working or were solo parents, and they all completed, they all did it in their own time. They found it really flexible, really user-friendly" [T].

While this flexibility took its toll on teachers, the Open Polytechnic courseware removed the responsibility for them having to directly teach everything.

REFLECTIONS

The interviews indicate that use of courseware designed for asynchronous digital distance education can be used as the basis for blended learning in face-to-face settings. Doing so increases the availability of qualifications to smaller, local cohorts of learners where full, independent face-to-face provision would not be viable.

However, implementation is key. The homogeneity of teaching staff in terms of teaching experience and digital literacy should not be taken for granted, and while the time and cost of generating resources is saved, it is not always clear to teaching staff how to make best use of their classroom time or the resources made available to them. While general guidance is provided by Open Polytechnic, it seems professional development for teaching staff – both in terms of using the courseware in blended learning and improving digital literacy where there is a need – would be beneficial. The support person assisting the implementation of the business division's courseware was often mentioned as excellent to work with, and there can be no doubt that much of the success in implementation was due to their efforts.

One element missing from the respondent interviews was any resistance or hesitancy in using Open Polytechnic courseware. The 'course in a box' trope was not mentioned. All respondents appreciated the additional opportunities the resources provided, which made the local blended offering possible. The empowerment of teaching staff to arrange their own 'blend' and having the option to contextualise may also have contributed to the appreciation of the courseware being provided.

The extended quotation from Vaughan et al. cited earlier could be pasted here again, though in this study teaching staff were not required to create their own resources. Even where teaching staff are provided with resources, rather than having to create them, definitions, institutional support, and stakeholder engagement are key to success. The endorsement of senior managers, the facilitation of professional support staff and the student-centredness of teaching staff resulted in successful, though not entirely smooth, implementation of blended learning.

"I think it's gone well. I think it's given us a flexibility. It's given learners an opportunity and I think the content on there has been good. I know that there were the usual things around assessment versions and all those things that when you start getting down into the nitty gritty need a sort out and a tidy up. But I think it's been a successful implementation for us and for learners" [M].

Teaching staff in particular rose to the challenge of blended learning, with the cycle of immediate relief of not having to prepare resources quickly followed by an initial period of settling, during which more guidance would have been useful. Eventually, though, teaching staff found their stride and were able to develop a blend that suited their style, subject and students. Ideally, teaching staff would have more guidance via a clear blended learning strategy and opportunity before their classes begin to design their blend and customise those elements of courseware, particularly assessment, ahead of time.

CONCLUSION

Using asynchronous digital distance courseware as the basis for blended learning provides opportunity to extend education provision where it might not otherwise be viable. While implementation activities need to be carefully considered, the professionalism of managerial, support and teaching staff were able to establish a viable and learner-centred education solution.

This study suggests the following recommendations, some of which apply to any implementation of blended learning.

1. That organisations develop a blended learning strategy and that this be clearly communicated to staff to help guide them.
2. That areas of support and customisation be transparent between those providing the courseware and those teaching staff using it.
3. That professional development be provided to teaching staff required to teach in a blended way.
4. That teaching staff be given the opportunity to familiarise themselves with courseware well before beginning to teach, so that they are able to define their blend and confirm the suitability of provided assessment.
5. That teaching staff be given opportunity to reflect and adapt their blend after the first offering of the course.

A follow-up study of student outcomes would also be a useful complement to this investigation.

COMPETING INTERESTS

The authors were all employed by or associated with the Open Polytechnic business division of Te Pūkenga at the time of the study.

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