Te Kāwai Kūmara: A pilot for the synchronous delivery of a common postgraduate programme in te reo Māori across multiple sites

Evaluation Report 2010

Rachael Tuwhangai
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To my trustworthy transcriber and valuable support person, tēnā hoki koe e hine.

To Ako Aotearoa and Te Ipukarea, thank you for allowing me to independently evaluate this innovative approach to postgraduate course delivery. I hope that these evaluation findings will provide insight for subsequent delivery opportunities via this medium.

Ka nui te mihi ki a koutou katoa.

Introduction

Te Kāwai Kūmara: A pilot for the synchronous delivery of a common postgraduate programme in te reo Maori across multiple sites was funded through the 2008 Ako Aotearoa National Project Fund in the Māori Initiative Funding Stream as a pilot project of Te Ipukarea, the National Māori Language Institute.

Since its establishment in 2008, Te Ipukarea has worked as a collaborative hub, across seven tertiary-level providers from five geographical regions. Guided by an advisory board of eight esteemed Māori academics, or whakaruruhau[1], Te Ipukarea manages a range of collaborative projects and has refined the process of collaboration over a period of time.

Te Kāwai Kūmara is one such collaborative project, which has provided a vehicle for the establishment of a Master of Arts in Te Reo Maori, connecting academic staff and students located at Auckland University of Technology (AUT University), Victoria University of Wellington and the Christchurch Polytechnic Institute of Technology (CPIT), led by Professor Tania Ka'ai at AUT University.

The challenge faced by *Te Kāwai Kūmara* was to deliver the specialist postgraduate qualification, by utilising a range of integrated technologies in the delivery, in particular, videoconferencing equipment and interactive whiteboards. *Te Kāwai Kūmara* as a pilot project concluded on the 30 November 2010, and required an evaluation to determine its immediate and potential longer-term impact.

[1] Shelter; also used as a term for 'advisory board'.

Evaluation summary

The seven overarching questions used to evaluate the effectiveness of *Te Kāwai Kūmara* are summarised below. More extensive discussion of them can be found in the full report.

1. **How effective has the process of collaborating on a shared postgraduate qualification been?**

   Collaboration has been beneficial for project participants, including the students, lecturers, project management team and participating institutions. Students benefited from the opportunity to engage in a reo Māori specialist postgraduate qualification, and lecturers improved their teaching skills using a new medium at postgraduate level, engaged with a wider postgraduate lecturer network, and shared research engagement conversations and actions. Technicians, however, found collaboration challenging, but identified a range of mutual benefits that arose from *Te Kāwai Kūmara*. Suggestions for improvement have been provided by participants in the evaluation document.

2. **What was needed technologically to enable the delivery of a postgraduate qualification across multiple sites?**

   Establishing strong collaborative relationships is essential if the technological aspects of the project are going to work effectively across institutions. While the initial set-up costs for the videoconferencing and interactive smartboard equipment was approximately $33,000, additional funds had to be set aside by each institution for security and room redesign. The ongoing costs for this method of delivery are relatively minimal, approximately $4,400 annually, a cost carried by the institutions. This cost includes an annual subscription to KAREN[2] (a fast, unrestricted broadband network for the New Zealand education, research and innovation communities) as well as equipment maintenance. Other institutional costs for consideration include: induction in the technology; after-hours security; technical support; and room hire at participating sites. The most notable technical challenge involved creating holes in firewalls for inter-institutional network access. Further suggestions, considerations and tensions have been provided in the evaluation document.

3. **What impact did this method of delivery have on teaching and learning and on lecturers and students?**

   The technology transformed the pedagogy of lecturers and created access to a postgraduate qualification of specific interest for the students involved. Lecturers found the need to transform their teaching practice once ‘working through a screen’ was challenging, but they rose above this, keeping their sights fixed on the vision of reo Māori revitalisation and of increasing postgraduate opportunities for students.

   Learning strategies needed to change as this was the only medium through which this particular qualification was offered. In addition, it was the only medium through which students could access such a wide range of reo Māori academics nationally. As a result, students felt that they ‘needed’ to adjust to the medium. While the students found pastoral support matters and the medium challenging initially, students appreciated the opportunity to be involved.

[2] Kiwi Advanced Research and Education Network: http://karen.net.nz/about/

4. **What impact has *Te Kāwai Kūmara* had upon increasing the research capacity and capability of Māori scholars?**

   Lecturers considered that students completing a research degree contributed to the research environment. Three out of six lecturers were enrolled in a PhD, and,two already held a PhD. The technology was used for PhD supervision, to discuss potential research projects and in writing for publication. It was difficult to ascertain how extensively the videoconferencing and smartboard technologies had been used for meetings or how many publications were produced over the two years as a direct result of *Te Kāwai Kūmara*. However there were indications that *Te Kāwai Kūmara* had enabled busy academics to meet on an as-needed basis for research, and to discuss research matters, using a reo Māori research vehicle that had not previously existed.

5. **What effective support techniques can be identified for postgraduate students utilising advanced digital technologies?**

   Four distinct support roles were identified by students as being necessary when studying remotely. These roles were pastoral, academic, administrative and technical. Students often spoke of needing support during the 'in-between times', that is, the times when they were not in videoconference sessions.

   Students raised concerns about personnel roles not being clearly defined, the lack of formalised remote site support, and their overreliance on the site lecturers to support them during challenging times. Students felt that if there was more lead-in time (such as information evenings prior to programme commencement), induction in the technology and essential digital information sources, and an introduction to other students via the technology, then their later dependency on site lecturers and project support staff may have been reduced.

   Students expressed their desire for personalised support, which did not necessarily happen through the technology. Support tended to come from people the students had already met and with whom they were familiar. Only once a relationship had been established would students seek support via technology, most often by telephone or email, as these technologies were available in the their own homes and were more private. The younger females in the group were more reluctant to ask for help than other students.

   Those students who arrived early to videoconferencing sessions and were fortunate to catch their lecturer alone may have used the videoconference to ask for course-related support. Assignments appeared to be very individual in nature; opportunities for student collaboration were not part of assignment design. A consideration for the future could be to require students to work collaboratively on some aspects of assignment work to reduce feelings of isolation.

   The return of emails from various project personnel was slow at times. Perhaps an alternative, cost-effective kanohi-ki-te-kanohi (face-to-face) medium for contact (for example, Skype) could be modelled for student use, to avoid feelings of isolation.

6. **How has increased access to highly-regarded reo Māori academics improved postgraduate opportunities while studying across multiple sites? What have the benefits or challenges been?**

   Students were adamant that if it were not for *Te Kāwai Kūmara*, they would not have been able to start or complete a postgraduate qualification in their particular area of interest, Te Reo Māori. For all involved, a vision had been realised. Students found their low numbers across multiple sites challenging in terms of student interaction, and they thought that studying at a distance hindered opportunities to develop collegial support outside of class, an important support mechanism for students enrolled in on-site courses. Within an 18-month period, *Te Kāwai Kūmara* has managed to support a cohort of around seven students through to successful postgraduate diploma completion.

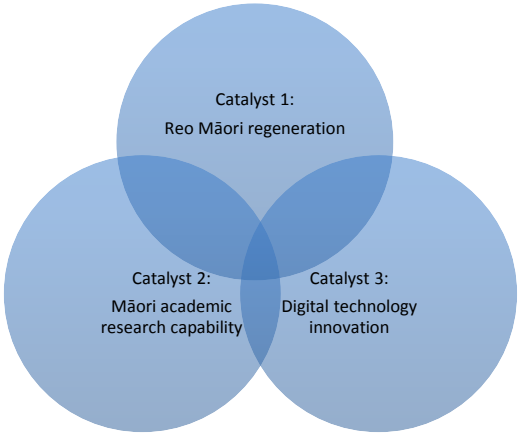
7. **What potential does integrated videoconferencing and the use of interactive smartboard technologies have for other academic disciplines?**

   It was documented within the data that videoconferencing was not used as a teaching tool in the collaborating institutions during or prior to 2007. In 2010, however, other disciplines at participating institutions – sciences, nursing, health science, midwifery and business – explored and started using videoconferencing at undergraduate level.

   Te Kāwai Kūmara was proactive in responding to course rationalisation across multiple sites and inter-institutional collaboration. Te Reo Maori departments involved in *Te Kāwai Kūmara* became site exemplars, used to showcase innovation within an institution and across institutions.

Project catalysts

Background documents associated with *Te Kāwai Kūmara* suggest that the convergence of three potential catalysts underpinned this project:



Catalyst 1: Reo Māori regeneration

A 2010 Waitangi Tribunal media statement[3] cites a decline in the proportion of reo Māori conversationalists between 2001 and 2006[4], stating that if the trend in the number of reo Māori speakers had been maintained between 2001 and 2006, there would have been 8000 more speakers of te reo Māori at the time of the 2006 census. With 8000 fewer potential speakers, there is grave concern for the health of te reo Māori, as the pool of young speakers needed to replace the group of ageing speakers in years to come does not exist in the numbers originally hoped for. The Waitangi Tribunal media statement sent an urgent call to the nation to explore alternatives for the regeneration of te Reo Māori. One such alternative, addressed by *Te Kāwai Kūmara*, was to strengthen te reo Māori engagement opportunities extended to adult learners of te reo Māori.

The Wai 262 flora and fauna claim to the Waitangi Tribunal in 1991[5] (and its various iterations) held in Māori consciousness, and quite possibly the nation's consciousness, the realisation that te reo Māori continued to be at risk, and led to calls for a grassroots regeneration approach. Among other things, the claim promoted the use of te reo Māori in a range of contexts and for a range of purposes, leaning more heavily on the Crown to address the 'shortcomings…over the last 25 years'[6]. There was an ongoing drive by reo Māori enthusiasts and advocates to advance the use of te reo Māori in a range of sectors, one of which was education, including postgraduate-level education.

Catalyst 2: Māori academic research capability

The second catalyst is directly associated with growing future researchers by increasing postgraduate student numbers and strengthening the national research performance of Māori academic staff.

[3] Waitangi Tribunal. (2010). Media statement on the te reo Māori chapter of Wai 262: 19 October.
[4] Waitangi Tribunal. (2010). Media statement on the te reo Māori chapter of Wai 262: 19 October.
[5] This claim had several iterations.
[6] Waitangi Tribunal. (2010). Media statement on the te reo Māori chapter of Wai 262: 19 October.

In January 2008, the Ministry of Education's Single Data Return[7] revealed that 131 Māori completed a postgraduate research degree in 2007, compared to 1207 European/Pākehā. Statistics New Zealand's 2006 census data showed that 0.8 per cent (n=2535) of Māori held a postgraduate or honours degree, 0.7 per cent (n=2241) held a postgraduate degree and 0.1 per cent (n=387) of Māori held a doctorate degree. In 2006 only 1.6 per cent (n= 5136) of Māori held a postgraduate qualification.

In addition, a working paper prepared by White and Grice (2008) on the Performance Based Research Fund (PBRF) indicated that as a collective Māori performed poorly in the 2003 to 2006 PBRF round[8], highlighting further the need to increase Māori research capacity and capability, including the need to establish systems to nurture and encourage this. While the number of research-active Māori increased slightly between 2003 and 2006, from n=448 to n=482, in comparison to European/Pākehā, who increased from n=8012 to n=8665[9], the numbers for Māori were very low, and steps to improve upon this needed to be taken. *Te Kāwai Kūmara* aimed to build the research capacity and capability of Māori scholars by collaboratively establishing a cohort of Māori supervisors capable of supervising theses students through to PhD level in Te Reo Māori.

Catalyst 3: Digital technology innovation

A third catalyst was associated with exploring the national trend of transitioning from face-to-face teaching to digitally enhanced, or virtual, learning environments across the tertiary education sector. A number of different government strategy documents guided thinking about the use of digital technologies in educational settings, particularly between 2001 and 2007.

The *Digital Strategy 2.0,* developed by the Ministry of Economic Development in 2008, was concerned with creating a digital future for all New Zealanders using the power of information and communication technology (ICT) to enhance all aspects of New Zealanders' lives. It was a strategy for enabling New Zealand to become a world leader in using information and technology to realise its economic, environmental, social and cultural goals. The *Digital Strategy* was not just about technology; it was about people and their ability to connect to the things that matter to them, a pivotal change from earlier policy. Good progress had been made over the previous 10 years to guide the evolution of virtual learning environments within the tertiary education sector.

Recent research by Te Puni Kōkiri had noted that higher numbers of Māori aged between 15 and 39 years wanted to engage with Māori language and cultural content through e-media devices: 'More Maori than non-Maori own a cellphone or PDA, an iPod or MP3 player, a [gaming console], Sky television, DVD recorder or hard drive… [Y]oung Maori are media savvy and have a high[er] uptake/use of new and emerging media [than non-Maori].' Digital technology was definitely an area to consider for future educational programme development.

[7] White & Grice (2008) p 25.
[8] White & Grice (2008).
[9] White & Grice (2008) p 29.

Evaluation framework

Evaluation questions (as suggested by Ako Akotearoa) were combined with project aims and objectives (provided by Te Ipukarea[10]) to formulate the seven overarching evaluation questions below. These seven questions essentially provided the focus for this evaluation. (See Appendix H for a diagrammatic representation of the evaluation framework.)

- *Collaboration:* How effective has the process of collaborating on a shared postgraduate qualification been?
- *Digital technology integration:* What was needed technologically to enable the delivery of a postgraduate qualification across multiple sites?
- *Teaching and learning transformation:* What impact did this method of delivery have upon teaching and learning, and upon lecturers and students?
- *Research capacity and capability:* What impact has *Te Kāwai Kūmara* had upon increasing the research capacity and capability of Māori scholars?
- *Support techniques for postgraduate students:* What effective support techniques can be identified for postgraduate students when utilising advanced digital technologies?
- *Increased participation:* How has increased access to highly regarded reo Māori academics improved postgraduate opportunities while studying across multiple sites? What have the benefits or challenges been?
- *Interdisciplinary potential:* What potential do integrated video-conferencing and interactive smartboard technologies have for other academic disciplines?

Limitations

Limitations of this evaluation included:

- the 18-month time frame of the teaching part of the pilot, in that in most cases only one session of each postgraduate course was conducted, providing limited opportunity for comparison across courses in subsequent years
- the timing of the four-month time frame to complete the pilot project evaluation, which was conducted nearing the end of semester two, at a time when assignments were being marked, and final grades were being collated and allocated; a pressured time for both students and lecturers, making it difficult to get evaluation participants
- the fact that this evaluation did not comment on the quality of curriculum content taught in the Master of Arts (Te Reo Māori), as this was beyond the scope of this evaluation brief
- the fact that this evaluation made no comment on the financial impact that this project had on equivalent full-time student numbers, staff workload or future employment prospects.

[10] Te Ipukarea is the National Māori Language Institute based at AUT University.

Ethical issues

Approval for this evaluation process was gained through the AUT University ethics approval process, managed by submitting an EA9 – Request for External Access (Appendix A). Participant information sheets (Appendix B) and consent forms (Appendix C) were issued to postgraduate students, lecturers, the project-coordination team and site technicians, and returned to the Evaluator. All anonymous survey data was collected for analysis purposes, and it was to be held for a period of six years.

Methodology

Data collection methods

A range of data collection methods was used to gain evaluative feedback from participants, including:

- interview questionnaires to gather evaluative feedback from four different groups of participants associated with this pilot project (Appendix D)
- anonymous online surveys (Appendix E)
- field notes, which included minutes of meetings with pilot project personnel, observational notes taken during a videoconference session and Te Ipukarea milestone reports.

The interview questionnaires focused more on macro-type questions, providing the opportunity for four different groups of participants to respond openly and freely about their experiences and involvement with the pilot project, in an individual and confidential way.

The anonymous online surveys focused primarily on demographic information about the students and lecturers, their familiarity with the technology, their technological preferences and associated challenges. The questions were mainly closed, in the form of multiple choice, yes/no and Likert scale questions, with some open-ended questions.

The minutes of meetings gathered feedback from the pilot project coordination team on the effectiveness of the pilot project. The field notes provided a firsthand, observational account of a videoconference class in progress, along with project coordination team milestone reports, which provided a two-year progress overview from Te Ipukarea's perspective. Unfortunately course evaluations were not made available as it was suggested that students could be too easily identified.

The three main data collection methods followed an important procedure for the validation of interpretation of research data. Such a procedure is known as triangulation. When applied to educational research and evaluation, triangulation enables a conclusion to be reached on the basis of more than one set of data.[11] The point of triangulation is to check whether each of these diverse methods leads to a similar conclusion.[12] The overreliance on one form of evidence may impact on the validity of the findings. The data derived from the various collection methods were aggregated, thereby enabling the Evaluator to see if, independently, the data drew the same or similar conclusions.

[11] Robinson & Lai (2006).

[12] Hammersley & Atkinson (1995).

Participants responded openly about the personal, and in some cases professional, impact that *Te Kāwai Kūmara* had upon their tertiary studies and their work in the tertiary sector. Through this qualitative and semi-reflective process, participants were able to identify what they could manage within their personal and professional lives, and mentioned ways that they coped with study via a mode that was new and 'cutting-edge' for all involved. The questions asked were aligned to the seven key evaluation areas, the analysis of which is presented in the following section.

Data analysis

Once the qualitative evaluation data was collected, it was compiled, interpreted and analysed through the process of coding. Coding is a critical method of data organisation and analysis and is generally undertaken in three sequential stages: open, axial and selective.[13] Within a session of coding, it is possible to move between one form of coding and another. Axial coding was used to align the interview, survey and field notes data with key evaluation areas, which acted as pre-determined axes. Open coding was then used with these data to identify sub-themes that emerged under each key area, a summary of which is provided at the end of each section of this report. Triangulation of the cross-referencing of data was essential to ascertain whether there were any sub-themes emerging.

Project participants

Eight postgraduate students, five lecturers, three project-coordination team members and two technical support staff participated in the data collection process by way of semi-structured interviews and anonymous online surveys. Three lecturers and six students completed the anonymous online surveys.

Demographic information

Participants were based in three geographical locations: Auckland (AUT University), Wellington (Victoria University) and Christchurch (CPIT). Over an 18-month period, from 20 July 2009 to 30 November 2010, 33 course enrolments eventuated, across eight courses, an average of four students per course. Of the eight courses offered, three were repeat courses. In revisiting the numbers, there were essentially five different courses offered across three sites of instruction for this pilot, with an average of 6.6 (seven) students per course. More specifically a cohort of approximately seven students completed a postgraduate diploma within an 18-month period.

The majority of students surveyed fell into the 17 to 27 year age group (n=4). Two out of six lecturers held a PhD and three out of six were currently enrolled in a PhD programme. Half the lecturers were new to teaching at postgraduate level and were rotated through the courses over this period.

[13] Strauss & Corbin (1994).

Key findings

This section presents the findings of the evaluation under the designated evaluation areas. Each key area provides an evaluation question and indicative sub-questions.

Collaboration

Evaluation question: *How effective has the process of collaborating on a shared postgraduate qualification been?*

Indicative sub-questions included:

- Which aspects have worked well?
- Which aspects could be improved upon?
- How effective has this pilot project been toward encouraging collaboration across organisations?
- What are the benefits of such collaboration?
- What are the challenges of such collaboration?
- How effective has *Te Kāwai Kūmara* general pilot project coordination been in terms of the qualification and the technologies?
- What has worked well and what has not?

Participants commented on the benefits of collaboration. However, there were at times opposing views on the implications associated with collaboration, and how collaborative partnerships are formed.

Te Ipukarea as an institution has established many cross-institutional and individual collaborative partnerships. Many of these partnerships had been established over a number of years prior, while participating academics moved in Te Reo Māori and Education circles. *Te Kāwai Kūmara* was fortunate to be able to leverage off such partnerships, making collaboration almost seamless for lecturers.

The recognition of prior learning opportunities offered through AUT University provided a perfect progression for prospective students who had completed Te Panekiretanga[14] under the umbrella of Te Wānanga o Aotearoa, as well as an undergraduate degree specialising in Te Reo Māori through CPIT, out of Christchurch. Victoria University offered no postgraduate-level qualification specialising in Te Reo Māori. Therefore, the establishment of a shared Master of Arts (Te Reo Māori) qualification, which eventually settled at AUT University was of benefit to four institutions, including Te Wānanga o Aotearoa, and to students who wanted to further their academic qualifications but, due to small numbers at each of the institutions, had no obvious pathway to gaining a postgraduate qualification in Te Reo Māori. In this regard, the qualification offered by AUT provided no competitive threat to CPIT, Victoria University or Te Wānanga o Aotearoa, as no similar qualification was offered by these institutions, making this collaborative effort and lecturer involvement possible.

[14] Te Panekiretanga o te Reo Institute of Excellence in the Māori Language, established in June 2004, specialises in advanced competence in Te Reo and Tikanga, offered by invitation only.

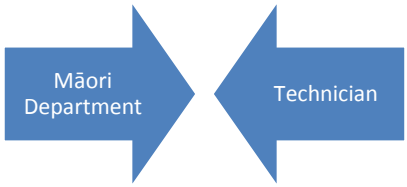
Māori make up a small number of postgraduate students. As mentioned earlier, Single Data Returns[15] revealed that only 131 Māori completed a postgraduate research degree in 2007 compared to 1207 European/Pākehā.[16] It would follow, therefore, that when students move into specialist areas, an already small population of potential postgraduate students becomes fragmented. Te Reo Māori as a specialisation is no exception.

Students and lecturers spoke of the reo Māori enthusiast/postgraduate student, who is known as having to endure an individualised programme of study, making for an isolating and lonely academic endeavour. Combining postgraduate students from multiple sites into one class or cohort under a joint qualification through *Te Kāwai Kūmara*, potentially created a community of learners, and a community of practice for the academic staff involved. The lecturers and students no longer had to work in isolation. The step taken by the collaborative partners to join forces for the collective good of students, academic staff and the reo Māori community is a major step for learning at postgraduate level, and a major feat for Māoridom.

Forms of collaboration

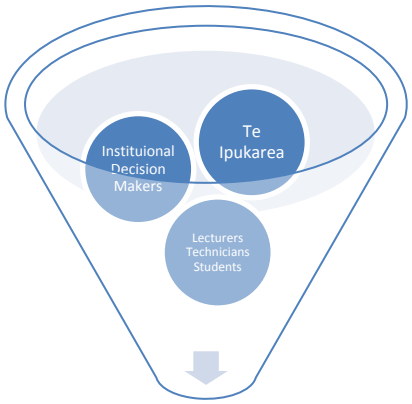
There were several forms of collaboration operating over the duration of the pilot, within institutions (intra-institutional), and between institutions (inter-institutional), also between the pilot project participants (coordination team, lecturers and students).

Intra-institutional collaboration



... within institutions

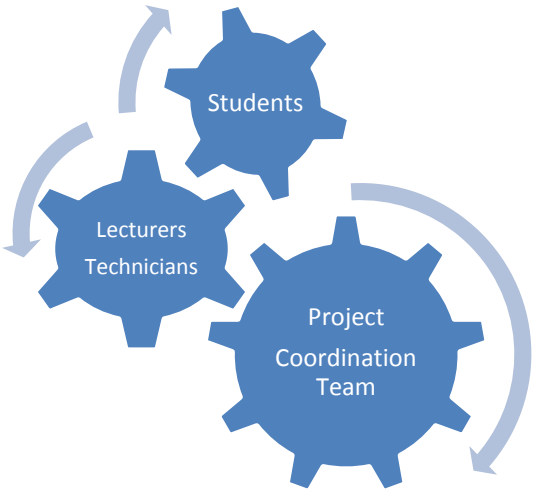
Inter-institutional collaboration



... between institutions

[15] White & Grice (2008) p. 25.
[16] White & Grice (2008) p. 25.

Collaboration between participants



Intra-institutional collaboration consisted of the relationships established between the subject specialists, in this case the Te Reo Māori teaching team and technicians/technical support staff within each institution. In one institution, the technical support person also sat on their institution's teaching and learning committee, which aided the progress of this pilot project in that the project objectives were more embedded into teaching and learning processes. At another institution, the relationship between the Te Reo Māori lecturer and the technician was not adequately established, hindering the progress of the pilot project at this particular site. A further example of intra-institutional collaboration involved the support or approval by the institution's CEO for their academic staff member to lecture on a qualification offered by another institution. In five out of six cases, the lecturers were not full-time AUT University lecturers and taught on the Master of Arts (Te Reo Māori) programme in their own time, on evenings or weekends. They avoided any employment tensions with their own institutions, as they were employed on individual employment contracts through AUT University.

Inter-institutional collaboration existed at different levels. One example is the relationship between 'decision makers' or high-ranking academic staff members in the institutions, such as the collaborative conversations had at a dean, professorial, head of Te Reo Māori level. These decision makers were committed to making *Te Kāwai Kūmara* work. They led by example, by teaching the courses and sacrificing their own time to nurture the students and the project through to successful completion. A further example involved the willingness by lecturers from the different institutions to work together, and deliver a suite of courses to make up a qualification. These lecturers were all very involved in their own reo Māori communities and were nationally sought after for their expertise, so finding time to meet frequently was a challenge; email was the most frequent form of contact for the teaching team. Scheduling timetabled meetings may be a possible area for improvement in the future.

Technicians were required to collaborate to provide seamless technological communication between the different institutions. This was a challenge, as will be discussed later. It became evident, however, that if the Te Reo Māori lecturers did not have a positive relationship with the technical support team in their own institution, then collaboration *between* institutions was severely hindered.

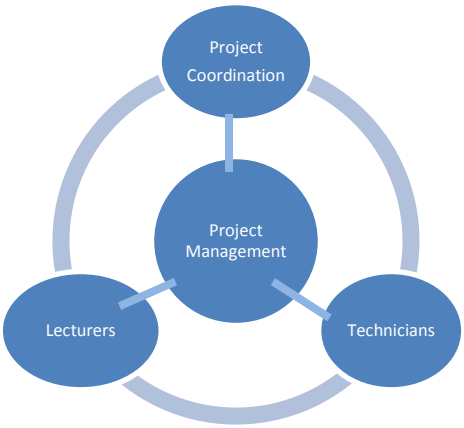
Summary of collaborative benefits for institutions

- Partnerships were established over a number of years.
- There was recognition of prior learning opportunities for Te Panekiretanga graduates.
- Progression for prospective students was established.
- There was no obvious individual pathway toward gaining a postgraduate qualification in Te Reo Māori.
- A choice of this number of lecturers had not been previously available.
- Working collaboratively provided no competitive threat to the institutions involved.
- Māori make up a small number of postgraduate students; bringing them together potentially reduced feelings of isolation.
- *Te Kāwai Kūmara* created a community of learners and practitioners.
- Participants worked together for the collective good of students, academic staff and the reo Māori community.
- Collaborative partners took a major step for postgraduate-level learning by agreeing to work this way, a major feat for Māoridom.

The project management team on collaboration

The project management team consisted of a project coordination team (involving three assigned project personnel) and collaborative partner representatives. The project coordination team essentially drove and supported the project administratively and academically. They strategically identified opportunity for collaboration, founded in historic relationships, under the umbrella of Te Ipukarea. They worked with collaborative partner representatives, and decision makers from the collaborating institutions, who in this case were also lecturers on the programme, to deliver a postgraduate-level qualification. All collaborative partners knew each other well and had a formal alliance with Te Ipukarea. This aided the collaboration process across institutions.

Project Management Structure



The project management team together viewed the collaboration as ‘a breath of fresh air… an opportunity to work across institutions with people, lecturers, colleagues of like mind, breaking down the barriers of isolation’. For lecturers, *Te Kāwai Kūmara* provided the

opportunity to share research and professional practice ideas, as well as providing a supervisory support vehicle for PhD students studying across widespread geographical regions. For postgraduate students *Te Kāwai Kūmara* provided an opportunity to gain access to field experts, thus contributing to a wider vision of collectively growing postgraduate student numbers. For Te Ipukarea, combining students from multiple sites would in turn provide a potential student support network, one that could assist with student recruitment, retention and reo Māori revitalisation.

Summary of collaborative benefits for the project management team

- It demonstrated several forms of collaboration that are possible: intra-institutional, inter-institutional, and collaboration by different combinations of participants, lecturers, the project co-ordination team and technicians.
- There was an opportunity for postgraduate students to gain access to field experts, and for lecturers to share research and professional practice ideas.
- It provided a vehicle for supervisory support for PhD students studying in other regions and contributed to a collective vision of growing postgraduate student numbers.
- It provided a support network, assisting with student recruitment and retention, and with reo Māori revitalisation.

Students on collaboration

Students commented positively on the benefits of collaboration, including the opportunity to collectively construct knowledge. Students appreciated knowing that there were others 'out there', with similar reo Māori interests. The video-conferencing and interactive smartboards aided this by simultaneously connecting students for interactive tuition. *Te Kāwai Kūmara* created a potential whānau of learners. Students appreciated being able to access a variety of highly regarded field experts, without having to leave home to advance their postgraduate qualification.

Te Kāwai Kūmara created access to an academic opportunity and a specialist Te Reo Māori postgraduate pathway, which would not have otherwise been available to students studying out of Christchurch or Wellington, or to graduates of Te Panekiretanga, offered through Te Wānanga o Aotearoa. A postgraduate qualification specialising in Te Reo Māori is limited to a small number of institutions nationally, as mentioned by lecturers and students. Creating critical mass by combining small numbers across multiple sites grew a whānau of learners. Instead of studying in classes of one or two, which in many cases was the norm, students were able to enrol in a class of five or six in some cases, making for a more engaging reo Māori experience. Ventures of this type are more financially viable as only one lecturer was needed for six students, instead of three lecturers,,one per two students at each institution. A whānau of learners was also more conducive to language learning and enhancement through interaction. Collaborating meant that the field experts, or 'puna mātauranga' as described by one student, were all accessible, from the site of preferred study. Students could increase their postgraduate knowledge at no extra cost than they would have incurred by studying in their own home town.

Summary of collaborative benefits for students

- It created access to an academic opportunity and a specialist Te Reo Māori postgraduate pathway that would not have otherwise been available.
- It created critical mass by combining small numbers across multiple sites.
- It created a potential whānau of learners.
- Students gained access to a variety of highly regarded field experts.
- Students did not have to leave home to advance their postgraduate qualification.
- It was more financially viable for institutions.
- It was conducive to language learning and enhancement.
- It increased students' postgraduate knowledge for no extra cost.

Collaborative challenges for students

While multiple sites of delivery made academics more accessible, student privileges while studying through AUT University were not extended by the remote host institution. Students spoke of the frustration of not having access to key information sources, such as internet logins for their laptops while on campus, logins to the library catalogue, a library card to get books out, and, for some, not knowing how to access the central learning management system, Blackboard, through AUT University.

Students felt disconnected at times from the flow of information about the programme organisation and some felt that the general programme overview, direction and vision, as well as some of the finer programme details, would have been useful. Students expressed a desire to plan their academic year in advance, where possible, around work and family commitments. Meetings with project management team personnel revealed that, while there was a plan and a vision for the Master of Arts (Te Reo Māori), they agreed that this could have been more clearly articulated to students through a more robust recruitment and induction process. More tailored marketing material would be beneficial for both prospective and participating students.

In regards to pastoral support matters, students had not met or seen some of the key project personnel prior to course commencement, and did not feel comfortable requesting assistance for personal matters during those 'in-between times', in between videoconference sessions. Requests for support were not confined to academic course work, but support was also needed for financial matters, enrolment confirmation, recognition of prior learning approval, extension requests, additional course support materials, feedback on general academic progress, how to use technical equipment and digital information sources. Students were not absolutely sure if they could or should seek assistance from staff located at their site of study. Despite this, they tended to offload to their onsite lecturers, who may not have been lecturing on the programme at the time. This identified a potential pastoral support gap in the programme, as students felt too exposed in videoconferences to request help needed.

Students studying remotely were unfamiliar with how to access AUT University's learning management system, which could have provided them with essential course and support information. In regards to course-related support, students had been provided with contact details for lecturers to discuss course-related matters. Some chose to make contact when

needing support and some did not. The younger females in particular felt ‘whakamā’ to make contact when in times of need, as they could not anticipate how the lecturer might respond, due possibly to not having ‘met’ the lecturer in person. They mentioned that even though they had seen the lecturer, they did not feel as though they could approach the lecturer for help or to gain an extension, even while in personal crisis, such as during the Christchurch earthquake. Interestingly, they felt that this was more about them being female, young and shy, than the technology or the lecturer. In contrast, the males overcame this barrier of not having met yet and made frequent contact when and if they needed. They also asked more questions than the younger female students during the videoconference sessions.

Students would have liked one designated academic counsellor, guide or advisor to help them chart their academic course for the coming year. Students wanted to plan in advance around work and family. Some students were ready to choose a thesis topic, but were uncertain who could assist them with how to write a thesis, choose a topic and get started.

Summary of collaborative challenges for students

- Students needed assistance with personal matters during ‘in-between times’.
- Students needed access to key information sources, including about the programme organisation.
- Some students chose to make contact when needing support and some did not.
- There was a potential pastoral support gap.
- There was a lack of one designated academic counsellor, guide or advisor, to help students.

Technicians on collaboration

Themes of intra-institutional collaboration as well as inter-institutional collaboration surfaced in discussions with site technicians. While technicians were excited and very positive about the technology received by the institution as a result of *Te Kāwai Kūmara* and the opportunities for advancement that came with this type of technology, they did mention that they felt as if they were somewhat of an afterthought in the pilot project.

My interpretation of conversations had with two technicians was that the pilot project considered the role of technician and technical support in an *ad hoc* way, and that the technicians operated on a lot of good will to ensure that the pilot project was a success. While they valued the relationships that had been built with lecturers at their respective campuses, the shared use of the technology and the mutual benefit that this brought, they commented that there should have been a designated technician assigned in the pilot project personnel framework, and that this person should have provided technical oversight for all participating institutions as well as their own.

This is an extremely important role, as without the support of the technician, access to digital networks at other institutions would have been blocked. Digital access to each other’s network was needed for this pilot project, especially in the case of the Bridgit software, used by the interactive smartboard, as this software requires a ‘hole in the firewall’ to be created, so that the board/computer/videoconference equipment can communicate between sites. Technicians spoke of other disciplines beginning to use the same delivery method, such as the sciences, health science, midwifery and business, and the potential that this system has for mass delivery across multiple sites, which affirmed this project further.

Summary of collaborative benefits and challenges for technicians

- They were very positive about the technology received by the institution.
- It was mutually beneficial.
- They saw the potential of this system for mass delivery across multiple sites.
- The role of technician and technical support was administered in an ad hoc way.
- Technical support operated on a lot of good will.
- A designated technician should be assigned in the pilot project personnel framework.

Digital technology integration[17]

Evaluation question: *What was needed technologically to enable the delivery of a postgraduate qualification across multiple sites?*

Indicative sub-questions included the following:

- How do the technologies that were used fit into the wider institutional e-learning infrastructure?
- How sustainable is the use of such technologies?
- How has the use of such technologies increased access to higher-level qualifications for learners?
- What role did the institution play in inducting students and lecturers to the technology?
- What kinds of technical issues has the 'integrated system' encountered, to your knowledge?

[17] For the purpose of this report, technology integration is concerned with the cost of equipment, installation and integration of technology into teaching and learning.

Equipment[18]

Equipment costs can be separated into start-up costs and ongoing costs.

Start-up costs	Total $	Start-up costs	Total $
Videoconference equipment including speakers, microphone, camera	23,189.00	Interactive white board	10,562.00
		Telephone in the classroom for technical support	Unknown
Dedicated computer (provided by the institution)	Unknown		
		Room security/alarm	Unknown

Ongoing annual cost	Total $	Ongoing annual cost	Total $
Unlimited broadband Internet access subscription to the KAREN network – an annual institution cost	3000.00	Room hire at remote sites (paid by semester)	Unknown
Annual service contract (recommended)	1400.00		

Other than the initial set-up costs, the ongoing costs for this method of delivery were minimal in the wider scheme of a tertiary institution.

Technicians suggested that the equipment be considered for upgrade, as with all other technologies, every three to five years. Having said this, one technician mentioned that his institution's 10-year-old video-conference system is still working well, which may indicate that this type of technology will last for a very long time, and that equipment upgrades may be considered instead every five to seven years, instead of every three years, as might be the case with computers, for example.

There were some challenges associated with institutional loyalties to different hardware providers, which technicians felt should be considered in collaborative pilot projects. They also felt that it was absolutely essential to discuss hardware specifications with collaborative partners in any subsequent occurrence of a project of this type, due mainly to the potential for connectivity and compatibility issues.

Installation

Technicians mentioned that installation costs were incorporated into the purchase price of equipment. They felt that as they had seen this done once now, they believed that installation was a cost they could save on in the future, but this would not make for any major saving. A staff member from the company Connect New Zealand, which provided most of the equipment, worked between institutions to assist with installation, and gave advice about how to set up classrooms to be ready for delivery. One technician in particular

[18] Refer to Appendix I for overview of equipment.

felt that this was good will on the part of Connect, and should have been part of the role of a designated pilot project technician.

One major issue was a security breach, which involved the SMART Bridgit software; a hole in the firewall had to be created so that the interactive smartboard could be used collaboratively. The problem was that this hole potentially gave the collaborating institution free and unlimited access to the other's network. One institution did not allow this, so the interactive smartboard did not work in a collaborative way from this site, which limited the potential productivity of the board, from certain sites. To overcome this, lecturers zoomed in on the board with the camera when they needed students to see what they had written.

This was not a problem, however, for the videoconferencing equipment, as the videoconferences were hosted via the external videoconference bridge KAREN, which the participating institutions subscribed to annually. This bridge assumes that multiple sites can connect simultaneously. In saying this, there were only three sites connecting at any one time. One technician wondered what the technological challenges might be if more sites wished to connect. He felt that three sites was a manageable size, but if replicated on a large scale, scalability would need to be explored and tested. He commented, 'Twenty-four sites, for example, would be too many, due to coordination, internet connection speed and security.'

Another technician mentioned that system upgrades, updates and backups are often carried out on weekends. This may have an impact upon Internet/network speeds at different sites after hours. Students and lecturers noted their frustration when the technology did not work, and the need to develop a contingency plan for when these situations arose. Technicians felt that all of the above needed to be considered when timeframes and timetables were set in the near future, as technicians need to be able to plan ahead too.

Integration

Students and technicians were clear about the need for formal induction to the equipment. The challenge for technicians was that the class times were after hours and on weekends, when the technicians were not working. Students came in at no other times to be trained on how to use the equipment, so there was a great deal of trial and error. Technicians tended to train key staff at the institutions, so that they could induct the students after hours. However, if those staff members were not the lecturers teaching that week or that semester, then the management of technology during class time across the multiple sites became a tension/challenge.

Lecturers said the benefit of the technology was it created access. They were grateful that their students knew what they were doing and that they didn't have to worry too much about 'how to drive the technology' and could instead 'focus primarily on teaching'. Students mentioned, however, that they felt inadequate at times with the technology. It appears that adequate induction to the equipment is an area for consideration.

Technicians spoke of sometimes being the last to find out about the wider institution's vision for e-learning. They also mentioned that knowing the technological culture of the prospective partnering institution is extremely important when embarking upon collaborative partnerships, as questions around compatibility in regards to strategic development for participating institutions is a factor that may strengthen or inhibit a potential collaborative relationship, especially if the strategic developments do not align.

In such a technologically-orientated programme, more thought needed to be given to the technological infrastructure and support surrounding pilot projects of this nature and scale.

It seems that teaching and learning with the technology emerged very much through trial and error. This is discussed in the teaching and learning transformation section of this report.

Student access to essential information systems when studying remotely has already been discussed in the 'collaborative challenges for students' section of this paper.

Summary of technology integration

- The initial set up costs were around $33,000, but the ongoing annual costs for this method of delivery were minimal, approximately $4,400 per year.
- Equipment upgrades may be considered every five to seven years, instead of every three years.
- Institutional loyalties to different hardware providers should be stated up front.
- Potential connectivity and compatibility issues should be explored early on.
- The role of a designated pilot project technician should be established.
- A major issue was the security breach, and the need to create a hole in the fire wall for collaborating institutions.
- The project's scalability needed further exploration and testing.
- System upgrades, updates and backups are often carried out on weekends.
- A contingency plan for when the technology did not work should have been developed.
- There should be consultation with technicians when preparing timetables.
- Formal induction to the equipment should be provided.
- Tensions may exist when managing the technology during class time, after hours and across multiple sites.
- The technological culture of the prospective partnering institution should be identified early on.
- Institutional compatibility in regards to strategic development should be explored early on.

Teaching and learning transformation

Evaluation question: *What impact did this method of delivery have on teaching and learning, and on lecturers and students?*

Indicative sub-questions included the following:

- What specific teaching techniques did lecturers use while engaging with the interactive smartboard and the videoconferencing equipment?
- What strategies did students utilise to cope or adapt to being taught through the technology?
- What do you consider the benefits and challenges have been for learners? For lecturers?
- What challenges need to be overcome? How might they be overcome?

Teaching and learning transformation is concerned with the extent to which the technology has impacted upon lecturers, students and the method of content delivery.

Teaching techniques

Lecturers felt that they needed to 'up their game' and adapt their teaching pedagogy to suit the technologically enhanced delivery mode. They had all agreed to deliver this way, and admitted to not having done so before, but were willing to give it their best go. These particular lecturers looked beyond potential barriers and technological challenges and just got on with the task at hand. They set their focus clearly on the greater purpose of language revitalisation and creating a critical mass of postgraduate students. They worked extremely hard, with dedication and passion, to teach stimulating, engaging and informative postgraduate courses. Students commented repeatedly how much they appreciated their lecturers' dedication to them, their commitment to delivering high-quality courses through a new technological medium, and the genuine faith lecturers had in their students' ability to succeed.

Students commented on the pedagogical techniques used by lecturers to make the intake of new information manageable and to assist student knowledge construction:

> 'One lecturer broke the content up into 40-minute blocks, and then gave us 'away from the screen time' to think about things. This was helpful because it gave me time to digest the content.'
>
> 'Our lecturer would wānanga things with us. He'd introduce us to the big idea by posing a general question, then provide us with the opportunity to work together with other students to answer it; he'd support us throughout. Before we knew it, we had worked out the theory, before he'd even told us about it. When he eventually introduced the theory to us, we knew exactly where he was coming from.'
>
> 'He allowed us time to just talk, before we got into the learning. He was there when we turned on the screen, sometimes just setting up his papers and things, but he was always there before us. It was like walking into a classroom, and your lecturer was there waiting for you to arrive. We got time to talk to him before class, ask questions, have a coffee with him, and stuff like that.'

Students commented further on lecturer pedagogy, making reference to lecturers who checked up on their progress by keeping in constant contact in between the videoconference sessions and by sending through necessary information well in advance of the next session. Students also noticed that lecturers addressed them by name and drew them into conversations, creating a sense of inclusiveness, despite being at different sites. Using names meant that lecturers could regulate conversations between class participants, and encourage reluctant participants to take a more active role. The classes were relatively small, so students could not escape the conversation. As noted earlier, the younger females in the group felt uncomfortable with the requirement to engage, possibly due to their personal language confidence and shyness.

Students were impressed with the possibilities that the technology presented. I observed a combination of different technologies being used simultaneously, such as viewing a YouTube video clip together through the board, with a split screen being shown, and the lecturer writing notes at the same time, providing a point of discussion. After this, a waiata was performed, while the words to the waiata were projected simultaneously through the screen, and a copy emailed through also for later student reference. (Students often had their own laptops on hand during the videoconference for this reason.) This then led into a discussion about the words of the waiata. A combination of real life, real time, static imagery and text was used to highlight the new information in a range of ways.

Suggestions to improve the method of delivery

Students mentioned that none of the lecturers used Blackboard (the AUT University learning management system) and instead sent key documents out via email. The student comments on this included:

> ‘You had to be pretty organised and keep all of your attachments together if you wanted to be able to easily find them later. Having information stored on one central learning management system for later reference would have been useful too. It would have kept things in order, by class, for me.’

> ‘The interactive white board was used mainly to show PowerPoints, and was sometimes written on. I wouldn’t have minded getting a copy of the handwritten notes or scribbles made on the board during our classes. I’m not sure if [the lecturers] knew how to save them and send them out to us.’

In contrast lecturers commented on the amount of time it took to create flipcharts for the board, due to the variety of tools available in the software provided. For this reason lecturers used the interactive smartboard mainly to share PowerPoint slides and to write on when articulating a particular teaching point.

One lecturer mentioned the importance of ā-tinana, an extension of kanohi ki te kanohi, as a preferred pedagogical approach to teaching, rather than ‘through the screen’:

> ‘I didn’t know what I was in for. I thought I was going to teach a wānanga with real people, but when I got there, it was through a big screen on the wall. I thought … okay, how am I doing to do this? And then to make it worse the technology didn’t work. We tried for about 45 minutes to connect and then gave up. We recorded the session and organised to have it sent out to the students.’

When asked if he would teach this way again, he initially hesitated, but eventually answered 'Yes, because it helps to increase postgraduate student numbers. There's a bigger purpose here.' He knew he needed to 'get on with it, because he had already agreed to it'. In essence, he compromised his preferred pedagogical approach for the collective gain of the group, an example of transformed pedagogy.

Lecturers commented on the flow-on effect of the technology being so readily available, and how at one particular institution, the technology was being used a great deal by undergraduate class lecturers, who used the same teaching space. 'They had seen what was possible, and surpassed this in their own teaching.' Other lecturers spoke of ways in which their sites of delivery were becoming site exemplars, used to showcase their innovation with other institutions and also across their own institution.

For some lecturers, teaching at postgraduate level was a new experience, but they admitted to getting more confident with teaching through the technology as the programme went on. They commented on feeling more exposed, and having to 'up their game', to keep the students engaged through this new medium.

Upon reflection they felt that oral assessments and presentations encroached upon teaching and learning time, and thought that these might be better saved for an evening session at the end of semester or a potential end-of-year ā-tinana wānanga.

Summary of pedagogical transformation resulting from *Te Kāwai Kūmara*

Lecturers:

- needed to up their game and adapt their teaching pedagogy to suit the technologically enhanced delivery mode
- looked beyond potential barriers and technological challenges and just got on with the task at hand
- focused clearly on the greater purpose of language revitalisation and creating a critical mass of postgraduate students
- worked extremely hard, with dedication and passion, to teach stimulating, engaging and informative classes
- had faith in the ability of students to be successful
- broke the content up into 40-minute blocks
- provided away from the screen time to think about things
- worked co-constructively to assist student knowledge construction
- allowed time to just talk, before getting into the learning
- checked up on student progress in between videoconference sessions
- sent necessary information to students well in advance
- addressed students by name
- encouraged reluctant participants to take a more active role
- used a combination of different technologies simultaneously
- used a split screen to show key information in different forms

- provided a combination of real life, real time, static imagery and text to highlight new information in a range of ways
- mentioned ā-tinana, as an extension of kanohi ki te kanohi
- saw the bigger purpose
- identified the flow-on effect of the technology that had been provided
- were used as site exemplars, to showcase their innovation with other institutions.

Pedagogical challenges

Lecturers felt:

- they compromised a preferred pedagogical approach for the collective gain of the group
- more exposed, and had to up their game to keep the students engaged through this new medium
- that oral assessments and presentations encroached upon teaching and learning time
- that creating flipcharts for the board took too much time.

Students would have liked to:

- see information stored on one central learning management system for later reference
- get copies of the handwritten notes or scribbles made on the board during classes.

Learning strategies

Despite being able to 'see' others, students commented on the missing element that comes only with being in the physical presence of others. The term 'kanohi ki te kanohi' (face to face) was no longer an adequate description of what students desired of a classroom learning environment, as the videoconference sessions provided that. Students still desired the ā-tinana (in person) element absent from videoconferences, due to their inability to see the students up close, as a wide shot of all participants was needed.

One student mentioned that the size of other students' faces limited how up close and personal you could get with them: 'You could come to know a lecturer a little as they were usually the closest to the camera, but students were often at a distance and didn't interact with the camera in the same way, so you didn't really get to know them, or see them up close'.

When asked 'How did you cope in challenging learning situations?' the younger female students in particular mentioned that they often tended to struggle alone, or that they would ask a lecturer at their site for help. They felt too whakamā to ask for help from lecturers or other class members across sites because they did not know them well enough, as there were no out-of-class opportunities for the students to interact.

> 'We studied after hours and on weekends. It wasn't like I ran into the others in the cafeteria or anything, because I worked, and I guess they worked too.'

Creating student support systems between students in the class may benefit students while studying at a distance, or at a site different to that of their lecturer. One of the more adult female students said she buddied up with another person in her physical class.

> 'I contacted her and drove out to meet her. I needed to, because sometimes getting responses back to my emails was taking too long. I thought if I contacted another person in the class, they might be able to help me. I haven't got my results yet, but I hope it worked.'

Students echoed a desire to have an ā-tinana experience, such as a wānanga, to start off the programme. One student suggested possibly loading course fees for those studying this way with a little extra, so that costs of travel and wānanga could be coordinated by the institution and covered by a student loan. Despite being able to 'see' the students, they still wanted to start the year off with an ā-tinana/wānanga/in person experience. 'I think I would have asked for help more, if I had met the people in my class before we started.'

Students understood that the programme was a pilot, and that there would be teething problems, and that there was an implicit need to be adaptable, as this was the medium of delivery on offer. They made the following suggestions for how their technologically enhanced learning experience could be improved:

- Having a shared screen with the different technology operating simultaneously meant that the image of the other sites grew smaller each time a different technology was used. Perhaps having two screens would be beneficial: one for the board and one to continuously see the class.
- Lecturers often went out of view to write on the white board. A mobile device, such as a tablet, could enable lecturers to write on the board while in front of students, and therefore not have to go out of view.
- Students did not like the two cameras being positioned at the front and the back of the classroom. They felt it was rude that their colleagues at other sites could see the back of their heads, as they looked on at the screen at the front of the room. This was changed at some sites subsequently.
- Students mentioned that the sound quality at times was rather low between sites, due to the limited number of speakers available to students at the different sites. Students felt that having more speakers, placed around the room, would be beneficial and assist with sound quality.
- Students felt that they knew more about the technology than their lecturers. They also felt that their lecturers relied on them in a technological sense, which was not necessarily a bad thing, but because students were not always adequately inducted to the equipment either, at times it was like the 'blind leading the blind'. Some sites had technical support to hand, other sites did not. In most cases technical difficulties were managed by a member of the project coordination team being available at all videoconference sessions, in case technical support was needed. They could not, however, help with connectivity issues, which were often site-specific.
- There was no privacy. They could not have a quiet word to the lecturer in the breaks if they were struggling. 'You could see them, but you couldn't ask them privately for help, because everyone else would hear'.

The method of delivery, through the videoconferencing equipment and interactive

smartboard, has been of benefit to learners. It has provided access to a qualification that would not have otherwise been available nationally. It has plugged a gap in the postgraduate landscape that needed filling, and has fulfilled a cultural and academic aspiration of scholars and academics, for not only individual benefit, but for the benefit of the students' whānau, communities and workplaces. Other than the technological and pastoral challenges mentioned above, lecturers made sincere attempts to transform their pedagogy to enable student success, and students responded similarly by transforming their preferred learning style to fit with the delivery method on offer.

Summary of student learning strategies

- Younger female students in particular mentioned that they often tended to struggle alone, or they would ask a lecturer at their site for help.
- One adult female student buddied up with another person in her class.
- Students would have liked an ā-tinana experience, such as a wānanga at the start.
- Students felt that they needed to adapt as this was the medium of delivery.
- Students felt the need to arrive early and ask for help before the learning started.

Research capacity and capability

Evaluation question: *What impact has* Te Kāwai Kūmara *had upon increasing research capacity and capability of Māori scholars?*

Lecturers spoke unselfishly of their students, and the academic hopes that they had for their students to complete a postgraduate research qualification. They saw completing such a qualification as contributing to the research environment, and as a positive step towards increasing their own student research capability.

Three out of six lecturers were enrolled in a PhD. Two had completed their PhD already. The videoconference equipment and interactive smartboard had been used for PhD supervision, and to discuss potential research projects and writing for publication. I was unable to ascertain the extent of this, and chose not to pursue this extensively, as lecturers were heavily involved in their own PhD studies. Mention was made during a project management team meeting of planning for more scheduled/timetabled supervisory and project team meetings. In saying this, it is without a doubt that teaching 'overload' and studying toward a PhD will impact upon personal workload, self-preservation, and research capability, which will in turn impact upon PBRF ratings.

Summary of the ways that research capacity and capability was increased

- Lecturers had academic hopes for their students to complete a postgraduate research qualification and considered this was making a contribution to the research environment.
- Three out of six lecturers were enrolled in a PhD and two had completed their PhD already.
- Technology was used for PhD supervision, and to discuss potential research projects and writing for publication.

- These lecturers were very busy so research meetings needed to be scheduled and kept.

Support techniques for postgraduate students

Evaluation question: *What effective support techniques can be identified for postgraduate students when utilising advanced digital technologies?*

As mentioned earlier, the students commented on different types of support, such as pastoral, academic, administrative and technical support, needed during the in-between times; times when they were not engaged in the taught videoconference sessions. While there were contact or support people identified, students felt that the project support roles were not clearly defined, and as a result, they tended to make contact more with their site academic staff when needing help or guidance. They understood that it was not really their site lecturers' responsibility to help, if they were not the ones teaching the course offered at that time, and felt that they may have become a burden at times. As these students were not enrolled at the remote sites of delivery, receiving pastoral support became an imposition upon the lecturers at the different participating sites. A visit to the campus counsellor, for example, would not have been possible for these students, as they were not enrolled at their home site, and were not able to receive this type of support.

An example cited by students was in relation to the period of earthquakes in Canterbury. Some students mentioned being upset or genuinely worried about the earthquakes. This impacted upon their ability to get assignment work in on time. Who could they go to, to share their personal fears, worries and anxieties when it impacted upon their learning? A video conference or a phone call to Auckland to get personal support did not seem attractive or appropriate. A designated on-site support person may have been more helpful, as they could have connected students with the support systems available at the remote sites, and guided them through this challenging period.

While lecturers were genuinely concerned with the success of the students involved in this pilot project, there did appear to be a gap around remote site support for students, if they required it. Having a qualification delivered remotely meant that the students in Christchurch, for example, were not CPIT students, and therefore they did not have any formal capacity to request support from that particular institution.

Some students commented on the imposition placed on certain staff members, in particular the need for these people to be available to them for both security and support reasons. These staff members had to be available after hours to let students into classrooms, sometimes with keys, pin numbers and swipe cards that only staff could hold. After-hours instruction, delivered remotely, meant that someone had to be physically available at each site to let students into classrooms. Interestingly, some students felt that this was a big ask, and wondered whether this was part of the job of these people, or if they just did it out of good will. Needless to say, students noticed that another key support role needed to exist after hours, if the programme was to be successful.

Students felt the need for more lead-in time to the programme, the courses, the personnel, and the technology. Students felt that it would have been beneficial to be introduced to key staff, or to attend an information evening via the videoconference. They wanted to connect with key people before the courses commenced, to hear their voices, see their faces, and

watch their reactions to their curly questions. They wanted to ‘check them out’ beforehand, should they need them later.

Students noted other support systems or information they would have liked, including:

- the programme’s structure, and the names and contact details of key people who could provide academic counselling along the way. There was a clear distinction between academic counselling/guidance and programme administration/support.
- Masters theses research; how to choose a topic, what the requirements are, who would supervise, and what the areas of supervisory expertise were of different lecturers. Would the supervisors from the different sites be available also?
- fees and financial support information, as each institution managed this type of information differently.
- the RPL process, and what was needed to cross credit, or get RPL for Te Panekiretanga accessing library resources and the library link-up service; for example, the students’ site of delivery may not have had the reading text they needed. Were the students expected to order books and pay for them? Or was it the responsibility of the host institution to ensure that key readings and key texts were available at the remote sites also?
- a cohort approach to study, including an opportunity to meet in person at least twice during the academic year. This could have been made possible, as one student mentioned, by loading the fees of distance delivery students a little, so the cost of travel could be factored into courses, which would be to their benefit when applying for student loans. What this would have meant is that institutions paid for the students’ travel and accommodation costs for these two wānanga. While students appreciated the technology for weekly or monthly classes, they also mentioned the benefit that meeting other students and staff at the start of the year and at the end of the year would bring.
- meeting others, which would mean that students would hopefully not be so shy to ask for help if needed, or to respond to questions when asked by lecturers.
- having an opportunity to engage with students out of class time or in between times would have been beneficial, but as they were at different sites and did not really know each other, this whānau learning environment did not get the chance to grow as it could have.
- that lecturers share an overview of their content with each other, to avoid any potential overlap for those studying at a distance/flexibly; those not studying in Auckland received information about campus life, which was of no use to them. They would have liked an information pack more tailored to studying flexibly on the Master of Arts (Te Reo Māori) programme.
- regional holidays to be included into the annual timetable.

Areas needing attention, when supporting students studying flexibly, have been identified. Using this particular technology to support students studying at a distance is an area requiring further discussion. Discussion includes real people located on site, and whether telephone or emails are more personal forms of receiving support.

Summary of student support techniques

- Support personnel for pastoral, academic, administrative and technical matters were needed during the in-between times, for example, between videoconferences.
- Support roles were not clearly defined.
- A gap existed around remote site support for students.
- Students felt the need for more lead-in time to the programme, to the courses, to the personnel and to the technology.
- Security and support roles were needed after hours, especially on the days that classes ran, and especially if there was only one person joining the class from any particular site.

Increased participation

Evaluation question: *How has increased access to highly regarded reo Māori academics improved postgraduate opportunities while studying across multiple sites? What have the benefits or challenges been?*

Students commented repeatedly on the opportunity and access the technology provided. It was extremely clear, that without the technology, students could not have started or completed a postgraduate qualification in Te Reo Māori. In this regard the technology, coupled with an after-hours study timetable, became an enabler. The students were motivated to learn and to improve their reo Māori, and could see a pathway towards scholarship through *Te Kāwai Kūmara*. For all, a vision had been realised.

Over an 18-month period there were 33 course enrolments, across eight courses, with an average of four students per course. Of the eight courses offered, three were repeat courses. In revisiting the numbers, there were essentially five different courses offered over an 18-month period, with an average of 6.6 students per course. More specifically, *Te Kāwai Kūmara* managed to support a cohort of approximately seven students through to successful postgraduate diploma completion within an 18-month period.

Students and lecturers found the low numbers across the sites challenging. Students mentioned that although there may have been six students in their class, they may have been the only student in class at their particular site, making the learning journey isolating and lonely at times. They commented on the lack of student collegiality out of class, and how, away from the videoconference sessions, study was a rather solitary endeavour. The cost of contacting colleagues or lecturers across the country was seen as a personal cost that students had to bear, so in some cases they persevered alone. An alternative, cost-effective contact medium could be modelled and used with students, to reduce the cost of phone calls to fellow students and lecturers, either by the introduction of a 0800 phone number or point-to-point web conferencing, such as Skype or multipoint web conferencing such as FaceMe or WebConference.com. The iPod touch now has video call capability via a wireless network.

Students felt that, when making queries about readings, course booklets, enrolment and general programme-related matters, the return time of emails from different project personnel was at times slow**,** and they often fumbled on alone. By the time responses were

received, the students had often moved on, and had worked out other ways of getting the information. Using scheduled virtual contact times could stem the support flow throughout the course. Lecturers could possibly have their Skype on during virtual office hours so that students could make contact if needed. Ways and means of successfully connecting needed to be explored.

Summary of the benefits and challenges of having increased access to academics, while studying from multiple sites

- Without *Te Kāwai Kūmara*, students would not have been able to start or complete a postgraduate qualification in Te Reo Māori.
- For all, a vision had been realised.
- A cohort of seven students was supported to postgraduate diploma completion over an 18-month period.
- Low numbers across the different sites was challenging in terms of student interaction.
- There was a lack of student collegiality out of class.
- An alternative cost-effective contact medium could be modelled for kanohi ki te kanohi contact in between class times.
- The reply time for emails from different project personnel was slow.

Interdisciplinary potential

Evaluation question: *What potential do integrating videoconferencing and interactive smartboard technologies into other disciplines have?*

Indicative sub-questions included the following:

- What potential for expansion do cross-sector or interdisciplinary videoconferencing, interactive smartboard technology and collaborative delivery approaches have?
- What potential might there be for teaching through Te Reo Māori?
- What is the potential application of the work? How might others use the findings?

Technicians noted that in 2007 and earlier, videoconferencing equipment was used for administrative purposes, to hold meetings and to interview prospective staff members. Videoconferencing was not used as a teaching tool.

Representatives from two institutions commented on the integration of videoconferencing and interactive smartboard equipment into course delivery in other disciplines. Health sciences AUT University are now using videoconferencing technology to teach content simultaneously to 800 health science students. At CPIT, areas such as business, nursing, midwifery and science are interested in teaching this way also; its business school has already started teaching some aspects of their courses using the digital technologies.

The timing of these changes in delivery method coincided with the evolution and duration of *Te Kāwai Kūmara*. While there was no direct admission that *Te Kāwai Kūmara* had been a

catalyst for technological change within the participating sites, *Te Kāwai Kūmara* was regarded by the interviewees as admirable, innovative and ground-breaking. In this regard, the interdisciplinary use of advanced technologies have been identified and commended. The effectiveness, however, rests within the context of use. The use and integration of the technology into the respective contexts needs further exploration, and will differ from site to site. External drivers, mainly economic and fiscal, have impacted upon the way in which the tertiary sector operates. These drivers call for the rationalisation of courses offered in certain geographical locations, and collaboration between institutions. *Te Kāwai Kūmara* has been proactive in responding to course rationalisation and inter-institutional collaboration.

Summary of inter-disciplinary potential

- Videoconferencing was not used as a teaching tool before 2008.
- Science, nursing, health sciences, midwifery and business are disciplines exploring the use of videoconferencing in their undergraduate courses.
- This was a proactive response to course rationalisation and inter-institutional collaboration.
- Māori departments were becoming site exemplars, used to showcase their innovation with other institutions and also across their own institutions.

Conclusion

While reflecting on the advances in digital technologies for education over the past 10 to 12 years, Māori have made major progress. For example:

- In 1998 Te Kōhanga Reo National Trust issued all registered kōhanga with a desktop computer and Internet access as administrative tools to keep them connected and to help them work more efficiently, by establishing a 'nationwide satellite network to provide distance learning programmes to the many kohanga reo (early childhood) centres around the country. Although the initial emphasis [was] on child education, the broad objective [was] to provide an educational facility for the adult Maori community also'[19].
- 'Ngata Memorial College in Ruatoria had difficulties with teacher recruitment and retention, as well as with student achievement. In 1993, the then principal, Apryll Parata-Blane and resource person Arnold Reedy set up an audiographic telelearning system linking a cluster of East Coast schools, including Kura Kaupapa Maori. Te Puni Kokiri, Telecom New Zealand and IBM assisted with financial and technology resources. Ngata Memorial is now the top-performing decile 1A school in the country.'[20]
- 'In 1998 the Ministry of Education contracted Gardiner Parata to design and manage a course to address the workload issues of Maori secondary school teachers. The [Te Hiringa i te Mahara project (THM)] arose following a ministerial review of secondary school teacher workload issues that identified Maori teachers, and teachers of Maori language in particular, as a priority. … [By 2001] THM ha[d] run three rounds of ICT training for teachers since 1999. Teachers ha[d] the use of a laptop for two years and Internet access for six months. Training [was] provided in the form of workshops and online tutorials.'[21] In addition, teachers were provided with online professional development materials as a means of connecting teachers, strengthening relationships and reducing work-related stress.
- In 2000 Te Kaupapa Ara Whakawhiti Mātauranga (KAWM)[22] was launched, another pioneering intervention that used videoconferencing technology to deliver specialist curriculum subjects to wharekura students, and East Coast and Māori boarding school students.

After this, several occurrences of ICT professional development clusters have followed, and in 2008, *Te Kāwai Kūmara* launched another chapter in the technology landscape for Te Reo Māori by offering a specialist postgraduate qualification in Te Reo Māori, across multiple sites.

Not without its challenges, *Te Kāwai Kūmara* has provided an opportunity to successfully explore the integration of videoconferencing and interactive smartboard technology into postgraduate programme delivery. Both lecturers and students were new to this approach, but were prepared to compromise their personal teaching and learning preferences to benefit mutually from the educational and technological experience.

Transformation occurred. Students wanting to pursue a postgraduate-level qualification in Te Reo Māori while being taught by some of the country's most highly regarded reo Māori

[19] Ministry of Economic Development. (1997)
[20] Ministry of Economic Development. (1997)
[21] Ministry of Education. (2001)
[22] Waiti (2005).

enthusiasts could now do so without having to leave their home town. At no extra cost, students could access these puna mātauranga, or field experts, as they were beamed into their classrooms. Students could continue with their day-to-day lives and routines, and maintain employment and whānau obligations, while simultaneously increasing their knowledge of Te Reo Māori.

Te Kāwai Kūmara is an exemplary model of innovation, where technology has been used as an enabler; a mechanism to bring about equity and advancement through education in Te Reo Māori. Te Ipukarea has worked collaboratively with Ako Aotearoa and partner institutions to advance a greater cause, one of language and cultural regeneration. An opportunity for collective advancement has been seized, and a vision for the future has been articulated through joint effort, a continuation of the determination shared by participants to push boundaries of what is possible now, while laying a foundation for what may be possible in the future. It comes as no surprise that Te Reo Māori and technology are at the heart of this major academic, language and cultural advancement.

References

Hammersley, M. & Atkinson, P. (1995). *Ethnography: Principles in Practice*. 2nd edition. London: Routledge.

Ministry of Economic Development. (1997). *ImpacT 2001: Learning With IT – The Issues*. Wellington: Ministry of Economic Development.

Ministry of Economic Development. (2007). *Information Sheet: Treaty of Waitangi Claim Wai 262.* Wellington: Ministry of Economic Development.

Retrieved from: www.med.govt.nz/templates/page_1207.aspx#P2_38

Ministry of Economic Development. (2008). *The Digital Strategy 2.0.* Wellington: Ministry of Economic Development.

Retrieved from: www.digitalstrategy.govt.nz

Ministry of Education. (2001). 'Kaupapa Māori approach ka pai'. *Education Gazette.* Wellington: Ministry of Education.
Retrieved from: http://www.edgazette.govt.nz/Articles/Article.aspx?ArticleId=6232

Robinson, V. & Lai, M. K. (2006). *Practitioner research for educators: A guide to improving classrooms and schools.* Thousand Oaks, CA: Corwin Press.

Strauss, A. and Corbin, J. (1994). 'Grounded Theory methodology: An overview', *Handbook of Qualitative Research* (Denzin, N. K. & Lincoln, Y. S. Eds). London: Sage Publications; 1-18.

Te Puni Kōkiri. (2006). *Ngā Pūkenga Mātauranga Māori: Māori Graduates*. Wellington: Te Puni Kōkiri.

Retrieved from: http://www.tpk.govt.nz/mi/in-print/our-publications/factsheets/maorigraduates/download/tpk-maorigraduates-2007-en.pdf

Te Puni Kōkiri. (2008). *Use of Broadcasting and e-Media, Māori Language and Culture*. Wellington: Te Puni Kōkiri.

Retrieved from: http://www.tpk.govt.nz/en/in-print/our-publications/fact-sheets/use-of-broadcasting-and-e-media-maori-language-and-culture/download/tpk-broadcast-factsheet-en-2010.pdf

Waitangi Tribunal. (2010). *Media statement from the Waitangi Tribunal on the te reo Māori chapter of Wai 262*.

Retrieved from:
http://www.waitangitribunal.govt.nz/doclibrary/public/reports/generic/Wai0262/262MediaRelease.pdf

Waitangi Tribunal. (2006). *WAI 262: The flora and fauna and cultural intellectual property claim.* Wellington: Waitangi Tribunal.

Retrieved from: http://www.waitangi-tribunal.govt.nz/doclibrary/public/wai262/SOI/Wai262SOI(doc2.314)small.pdf

White, P. & Grice, J. (2008). *Participation and Performance by Maori and Pacific Peoples' Researchers in the Performance-Based Research Fund, 2003–2006*. Wellington: Tertiary Education Commission.

Retrieved from: www.tec.govt.nz

Waiti, P. (2005). *Evaluation of Kaupapa Ara Whakawhiti Mātauranga (KAWM)*. Wellington: Ministry of Education.

Retrieved from: www.educationcounts.govt.nz/publications/maori_education/5087

Appendix A: EA9 – Request for External Access

Auckland University of Technology Ethics Committee (AUTEC)

EA9

APPLICATION FOR ACCESS BY AN EXTERNAL RESEARCHER

Applicant Information

Name
Rachael Tuwhangai

Research Institution
Independent Evaluator

Address
[redacted]

Email
[redacted]

Research Project Information

Project Title
Te Kawai Kumara: A Pilot for the Synchronous Delivery of a Common Postgraduate Programme in Te Reo Maori Across Multiple Sites

Summary
Aims or Goals of the study

Project aim: To build the research capability and capacity of Maori scholars

Project objectives:

- advance lecturer skills in teaching and learning through research in the Maori language
- identify effective support techniques for postgraduate students when utilising advanced digital technologies
- identify project efficacy in terms of the use of advanced digital technologies
- provide sustainable access to a pool of highly-skilled and highly-regarded Maori speaking lecturers, geographically spread across the country.

Overarching evaluation questions:

a) To what extent has the original intent of the project proposal been achieved?

b) How effective was the method of delivery?

c) How effective was the process of collaboration?

d) How effectively has the delivery method and approach encouraged collaboration across organisations?

e) What is the potential application of the work? How might others use the findings?

Recruitment of participants

Participants for this project evaluation will be Master of Arts (Reo Maori) students and lecturers for the 2010 academic year, semesters 1 and 2.

Participants will be notified by the project assistant and AUT staff member, Tania Smith, that an evaluation of *Te Kawai Kumara* is being conducted. Staff and students will be invited to participate, via the learning management email system. Those who are interested in participating will invited to complete an online consent form.

Informed and Voluntary Consent processes

Following the completion of the online consent form by students and lecturers, consenting participants will then be invited by Rachael Tuwhangai, via email addresses gained from the online consent form, to complete a pass worded online survey.

Research instruments and procedures

A range of data collection methods will be used to gain evaluative feedback from participants. These will include:

- **Anonymous individual interviews** to gather evaluative feedback from four different groups of participants associated with this pilot project, in terms of teaching, learning and general satisfaction with the project.
- **Anonymous online surveys** to gather demographic information of MA (Reo Maori) lecturers and students and to gather participants' knowledge and understanding associated with digital technologies.
- **Field notes,** which will include minutes of meetings held with pilot project personnel about the running of the project, queries associated with the Te Ipukarea milestone reports, as well as observational notes taken during videoconference sessions.

Privacy issues

The key privacy issues are associated with participant responses, therefore all respondents will be anonymous. Surveys are anonymous in regards to surveys. Individual interviews will be anonymous. All evaluation report findings, both students and staff, will be reported as anonymous.

The findings of this evaluation are reported to Ako Aotearoa; attention Kirsty Weir, and any publicity of such findings will remain the decision of Ako Aotearoa/Kirsty Weir.

Minimisation of risk

This is an external evaluation project of which AUT students are a part. Risk has been minimised through the design of the evaluation. for example, students and lecturers will not be named in any of the findings, or on the anonymous interview transcripts. Students and lecturers will complete an anonymous online evaluative survey, which has two levels of password access. They are not required to provide their names on this survey. Their names, and references to any other staff or students, will be omitted in the final report.

When do you propose commencing evaluation at AUT?

1st December, or at a date approved by AUT ethics committee.

Details of external (to AUT) ethics approval(s)

None

Declaration and Approval

Applicant's Declaration

The information supplied is, to the best of my knowledge and belief, accurate. I have read the current Guidelines, published by the Auckland University of Technology Ethics Committee, and clearly understand my obligations and the rights of the participant, particularly with regard to informed consent.

Signature of Applicant Date

Appendix B: Participant Information Sheets

Project title: ***Te Kawai Kumara: A Pilot for the Synchronous Delivery of a Common Postgraduate Programme in Te Reo Maori Across Multiple Sites***

Name of Researcher/Independent Evaluator: Rachael Tuwhangai

Research Introduction

Ako Aotearoa has contracted Rachael Tuwhangai to conduct an independent evaluation of the implementation of *Te Kawai Kumara: A Pilot for the Synchronous Delivery of a Common Postgraduate Programme in Te Reo Maori Across Multiple Sites*. Led by Professor Tania Ka'ai of AUT University, the project is run collaboratively with Victoria University of Wellington and Christchurch Polytechnic Institute of Technology.

Te Kawai Kumara aims to build the research capability and capacity of Māori learners by supporting them through the use of advanced digital technologies (SMART boards and video conferencing). This project has piloted a comprehensive suite of interactive teaching and learning techniques across multiple sites. From this work good practice techniques will be developed to support the teaching and learning through Te Reo Māori at the postgraduate level. Ultimately, this project aims to develop a cohort of Māori supervisors capable of supervising theses students in Te Reo Māori.

As this project is nearing completion it is an optimal time to assess its immediate and potential long-term impact. Further, as a nationally funded project, an independent evaluation is required by Ako Aotearoa (the funder) to ascertain the effectiveness of *Te Kawai Kumara*.

The key areas of evaluative interest are:

a) How effective was the method of delivery?
b) How effective was the process of collaboration?
c) How effectively has the delivery method and approach encouraged collaboration across organisations?

d) What is the potential application of the work? How might others use the findings?
e) To what extent has the project benefited learners?

Data collection procedures

All participants are invited to voluntarily complete one anonymous online survey and participate in one anonymous individual interview, at a time negotiated with you, prior to 17 December 2010. All anonymous online survey data will be protected by two levels of security passwords. As these surveys are anonymous you will not be able to withdraw your views from the evaluation. Anonymous online survey responses will be analysed by Rachael Tuwhangai and retained for a period of six years, after which time they will be destroyed in a shredder.

Individual interviews will enable Rachael to ask more in-depth questions about the learning and teaching that took place via the various digital medium, over the 2009 and 2010 academic years. Interviews will be recorded through a digital voice recorder. If you agree to take part in an individual interview you have the option to not answer any of the questions asked. The interviews will take place outside of class time either in person or on the telephone and will take approximately one hour of your time. All interviews will be transcribed, by a transcriber who will sign a confidentiality form agreeing to not disclose participant names. Participant names will not appear on the transcripts of the interview. After taking part in the interview you cannot withdraw your ideas, as these will have been made anonymous through the transcription. However we may give the student voices a pseudonym. The recorded interviews will be copied on to a USB memory stick and kept for a period of six years stored in a lockable cabinet. After six years the recordings will be deleted. Rachael Tuwhangai will conduct all interviews, and your views will remain confidential and cannot be traced back to you. If there are too many volunteers for the interviews we will draw names out of a hat and inform both those who have been selected and those who are not needed.

If you are willing to be interviewed please indicate on the online Consent Form, which will be emailed to you by Tania Smith of AUT University. Recorded interviews, typed transcripts or any printouts of survey results will be kept in a locked cabinet by the

evaluator also. This is to protect your anonymity so that your views will remain confidential.

All findings and key recommendations will be reported to Ako Aotearoa national office and *Te Kawai Kumara* project team. A public dissemination plan will subsequently be negotiated between the Evaluator, the Project Evaluator and Ako Aotearoa. You will be informed of this in due course.

If you have any concerns about this evaluation project you can contact either:

Rachael Tuwhangai – Independent Evaluator
Ph: 09 623 8899 ext 46396, Mobile: 021 048 8599
email: rachael.tuwhangai@gmail.com
or
Dr Kirsty Weir – Research Manager
Ako Aotearoa
Ph: 04 803 0107, Mobile: 021 827 032
email: k.weir@massey.ac.nz

Appendix C: Participant Consent Form

Project title: *Te Kawai Kumara: A Pilot for the Synchronous Delivery of a Common Postgraduate Programme in Te Reo Maori Across Multiple Sites*

Names of Researcher/Independent Evaluator: Rachael Tuwhangai

I have read the Participant Information Sheet. I have understood the nature of the evaluation and why I have been invited to participate. I have the contact details of the Independent Evaluator should I need to ask any questions.

I agree to take part in this evaluation and to complete one anonymous online survey and one anonymous interview. In addition I understand the following:

- I can ask any questions concerning the evaluation at any stage.
- I cannot withdraw my voice from the project as my views will not be able to be traced back to me.
- I understand that the digital recording will be destroyed after six years.
- My views will be kept confidential and my name will not be identified in any publication of the evaluation.
- The transcriber will be required to sign a confidentiality form.
- My participation in this evaluation project is voluntary.
- I understand that my participation is voluntary, and the decision to participate or not, will not affect my standing or grades within this institution.
- I will be informed when the evaluation findings are complete and available for viewing.
- The evaluation findings may be presented at conferences or published in journals or articles.
- Permission has been given by the AUT ethics committee for this evaluation to take place.

Name: …… Signature…… Date ……

Appendix D: Interview Questions

LECTURER AND PROJECT COORDINATION TEAM INTERVIEW QUESTIONS

How did you come to be involved with *Te Kawai Kumara* and/or the Master of Arts (Reo Maori)?

How effective has the process of working on a shared postgraduate qualification been? (collaboration)

- Which aspects have worked well?
- Which aspects could be improved upon?
- How effective has this project been toward encouraging collaboration across organisations?
- What are the benefits of such collaboration?
- What are the challenges of such collaboration?
- How effective has the *Te Kawai Kumara* general project coordination been in terms of the qualification and the technologies?
- What has worked well and what has not?

How effective has the method of delivery for this programme been?

- Which technologies were used?
- How sustainable is the use of such technologies?
- How has the use of such technologies increased access to higher-level qualifications to learners?

To what extent has *Te Kawai Kumara* (studying via videoconference and with interactive white boards) benefited learners? And lecturers?

- What other benefits do you foresee for future learners?
- How has this increased research capability?

What do you consider the challenges have been for learners? And lecturers?

- What challenges need to be overcome? How might they be overcome?

What potential might there be for other disciplines wishing to deliver courses this way? Provide examples.

He korero ano?

POSTGRADUATE STUDENT

How did you come to be involved with Te Kawai Kumara and/or the Master of Arts (Reo Maori)?

Have there been any benefits of working on a shared postgraduate qualification across multiple sites?

- What has been the highlight? Or most beneficial?
- What have the challenges been?

How effective has the method of delivery for this programme been?

- Which technologies were used?
- How sustainable is the use of such technologies?
- How has the use of such technologies increased access to higher-level qualifications to learners?
- How could your digital learning experience have been made more beneficial?

To what extent has *Te Kawai Kumara* (studying via video conference and with interactive white boards) benefited you in regards to your academic study?

- How effective has the course/digital technologies been in providing postgraduate students with the academic support they require?
- What areas of academic support have been addressed through cohort support/lecturer support/digital support?
- What has been the project's role in establishing and supporting postgraduate students?
- What processes and procedures have this/these course/s adopted to maintain regular communication?
- How is learning shared or promoted among peers in the various courses?

What do you consider the challenges have been for you, learning via videoconference?

- What challenges need to be overcome? How might they be overcome?
- What advice would you give to lecturers developing digitally enhanced academic courses?

What examples of good practice (digital/teaching pedagogy) have you observed over the duration of this project from particular lecturers (no names needed)?

- How have lecturers managed the technology or the room/virtual room to assist your learning?
- How could your engagement with the course be improved? Personally? Technologically?
- What have the biggest constraints/challenges been in regards to staying engaged with learning via videoconference and interactive white board facilities?

What suggestions, if any, do you have, to improve this project?

Appendix E: Anonymous Online Surveys (Lecturers)

By completing this online survey, I confirm that I have read the Participant Information Sheet and agree to take part in this evaluation. I have understood the nature of the evaluation and why I have been invited to participate. I have the contact details of the Independent Evaluator should I need to ask any questions.

I understand the following:

- I can ask any questions concerning the evaluation at any stage.
- This survey is anonymous and cannot be traced back to me.
- I understand that my participation is voluntary and the decision to participate or not will not affect my standing within this institution.
- I will be informed when the evaluation findings are complete and available for viewing.
- The evaluation findings may be presented at conferences or published in journals or articles.
- Ethical permission is still pending for this evaluation to take place and that no data will be used until such time as ethical permission has been obtained.

PART A – DEMOGRAPHICS

1. Lecturer
2. Gender
3. Qualifications held and place of study
4. Years of teaching/studying at tertiary level
5. Are you a first or second language speaker of Te Reo Maori?

PART B – CONNECTIVITY

1. Do you have access to the Internet at home? Yes No

2. Where do you mainly access the online aspects of course work?

   Home University Other:

   _____

3. If at home, please circle which of the following you have access to:

   Dial-up Broadband Wireless

4. Other than for study purposes, for what *other* reasons do you use the Internet?

   a Communication with family and friends b Employment-related activities

   c Online shopping d Other: _____

5. On a scale of 1–5, with 5 being very confident and 1 being the least confident, how confident are you with using the web activities following:

   a) Email:
   Not very confident 1 2 3 4 5 Very confident

   b) Video conferencing:
   Not very confident 1 2 3 4 5 Very confident

   c) Attaching or uploading files
   Not very confident 1 2 3 4 5 Very confident

   d) Accessing the designated learning management system
   Not very confident 1 2 3 4 5 Very confident

   e) Searching for information
   Not very confident 1 2 3 4 5 Very confident

   f) Creating digital content *(not including word processing or PowerPoint)*
   Not very confident 1 2 3 4 5 Very confident

6. Name some digital learning objects that you have used/created

7. On a scale of 1–5, with 5 being at least once per day, and 1 being at least once per week, how often to you log on to the Internet for academic study-related purposes, in relation to this/these course/s?

   At least once per week 1 2 3 4 5 At least once per day

8. On a scale of 1–5, with 5 being connected constantly and 1 being rather disconnected, how mobile are you in as far as Internet access goes:

   Disconnected 1 2 3 4 5 Constantly connected to the Internet through mobile device

9. If you answered 5, Constantly connected to the internet through a mobile device, please state what your mobile device is and how you manage to stay constantly connected:

   _____

10. In keeping with the question above, for what reason do you wish to stay constantly connected?

PART C – E-LEARNING

1. Do you use your mobile device to access study-related materials?

   a Yes b No

2. If YES, which of the following media formats would be most appealing, in so far as accessing study-related materials? (Tick any that appeal to you.)

a Streamed video clips	b Pod casts/Video clips
c Audio files	d PowerPoint presentations
e Downloadable activity sheets	f eBook
g Video record opportunities	h Audio record opportunities
I The Learning Management system	j Web quizzes
k Online dictionary:	l Other:_____

3. On a scale of 1–5, how willing are you to deliver a postgraduate-level Reo Maori course via videoconference, in the future?

Definitely not	1	2	3	4	5	Yes, I would be willing to teach this way again

4. Do you have any further comments to make about your experience teaching via video conference, or from a distance, online?

Appendix E: Anonymous Online Surveys (Students)

By completing this online survey, I confirm that I have read the Participant Information Sheet and agree to take part in this evaluation. I have understood the nature of the evaluation and why I have been invited to participate. I have the contact details of the Independent Evaluator should I need to ask any questions.

I understand the following:

- I can ask any questions concerning the evaluation at any stage.
- This survey is anonymous and cannot be traced back to me.
- I understand that my participation is voluntary and the decision to participate or not will not affect my standing within this institution.
- I will be informed when the evaluation findings are complete and available for viewing.
- The evaluation findings may be presented at conferences or published in journals or articles.
- Ethical permission is still pending for this evaluation to take place and that no data will be used until such time as ethical permission has been obtained.

PART A – DEMOGRAPHICS

1. Age range:

   a 17-27 years b 28-38 years c 39-49 years d 50+ years

2. Gender
3. Ethnicity
4. If Maori, please state your iwi and hapu
5. Qualifications held and place of study
6. Years of teaching/studying at tertiary level
7. Are you a first or second language speaker of Te Reo Maori?

PART B – CONNECTIVITY

1. Do you have access to the Internet at home? Yes No

2. Where do you mainly access the online aspects of course work?

   Home University Other: _____

3. If at home, please circle which of the following you have access to:

   Dial-up Broadband Wireless

4. Other than for study purposes, for what *other* reasons do you use the Internet?

   a Communication with family and friends b Employment-related activities

   c Online shopping d Other: _____

5. On a scale of 1–5, with 5 being very confident and 1 being the least confident, how confident are you with using the web activities following:

   a) Email:
   Not very confident 1 2 3 4 5 Very confident

   b) Video conferencing:
   Not very confident 1 2 3 4 5 Very confident

   c) Attaching or uploading files
   Not very confident 1 2 3 4 5 Very confident

   d) Accessing the designated learning management system
   Not very confident 1 2 3 4 5 Very confident

   e) Searching for information
   Not very confident 1 2 3 4 5 Very confident

   f) Creating digital content *(not including word processing or PowerPoint)*
   Not very confident 1 2 3 4 5 Very confident

6. Name some digital learning objects that you have used/created

7. On a scale of 1–5, with 5 being at least once per day, and 1 being at least once per week, how often to you log on to the Internet for academic study-related purposes, in relation to this/these course/s?

   At least once per week 1 2 3 4 5 At least once per day

8. On a scale of 1–5, with 5 being connected constantly and 1 being rather disconnected, how mobile are you in as far as Internet access goes:

   Disconnected 1 2 3 4 5 Constantly connected to the Internet through mobile device

9. If you answered 5, Constantly connected to the internet through a mobile device, please state what your mobile device is and how you manage to stay constantly connected:

_____

10. In keeping with the question above, for what reason do you wish to stay constantly connected?

PART C – E-LEARNING

1. Do you use your mobile device to access study-related materials?

   a Yes b No

2. If yes, which of the media formats would be most appealing, in so far as accessing study-related materials? (Tick any that appeal to you)

a Streamed video clips	b Pod casts/video clips
c Audio files	d PowerPoint presentations
e Downloadable activity sheets	f eBook
g Video record opportunities	h Audio record opportunities
I The Learning Management system	j Web quizzes
k Online dictionary:	l Other: _____

3. On a scale of 1-5, how willing are you to take a postgraduate level Reo Maori course via videoconference, in the future?

Definitely not	1	2	3	4	5	Yes, I would be willing to learn this way again

4. Do you have any further comments to make about your experience learning via video conference, or from a distance, online?

Appendix F: Student Enrolment Numbers 2009-2010

Student enrolment numbers 2009-2010				
Semester	**Course title and name**	**Videoconference dates**	**Number of students enrolled**	**Number of students completed**
2, 2009	948410 Tikanga Rangahau (Te Reo Māori)		6	6
2, 2009	949007 Tuhinga Totoko		3	3
2, 2009	949010 Kōrero Whakarei		4	4
1, 2010	948410 Tikanga Rangahau (Te Reo Māori)		2	2
1, 2010	949013 Tikanga		6	6
2, 2010	949007 Tuhinga Totoko		3	3
2, 2010	949010 Kōrero Whakarei		3	3
2, 2010	949012 Te Whanaketanga		6	6

An average of seven students completed a postgraduate qualification over an 18-month period.

Appendix G: Evaluation Areas: Summary of Findings

1. Collaboration

Evaluation question: *How effective has the process of collaborating on a shared postgraduate qualification been?*

Summary of collaborative benefits for institutions:

- Partnerships had been established over a number of years.
- Recognition of prior learning opportunities were provided to Te Panekiretanga graduates.
- Progression for prospective students was established.
- An obvious pathway toward gaining a postgraduate qualification in Te Reo Māori with a choice of as many lecturers had not been previously available.
- Working collaboratively provided no competitive threat to the institutions involved.
- Māori make up a small number of postgraduate students; combining them reduced feelings of isolation.
- *Te Kāwai Kūmara* created a community of learners and practitioners.
- Participants worked together for the collective good of students, academic staff and the reo Māori community.
- Collaborative partners took a major step at postgraduate level by agreeing to work this way, a major feat for Māoridom.

Summary of collaborative benefits for project management team:

- Several forms of collaboration operated over the duration of this project, these being intra-institutional collaboration, inter-institutional collaboration, and collaboration between different combinations of project participants, lecturers, and the project coordination team.
- An opportunity was provided for postgraduate students to gain access to field experts, and for lecturers to share research and professional practice ideas.
- There was a vehicle to provide supervisory support for PhD students studying in other geographical regions, and to contribute to a wider vision of collectively growing postgraduate student numbers.
- A support network was created, which assisted with student recruitment, retention and reo Māori revitalisation.

Summary of collaborative benefits for students:

- It created access to an academic opportunity and a specialist Te Reo Māori postgraduate pathway that would not have otherwise been available.
- It created critical mass by combining small numbers across multiple sites.
- It created a potential whānau of learners - conducive to language learning.
- Students accessed a variety of highly regarded field experts – puna mātauranga.
- Students did not have to leave home to advance their postgraduate qualification.
- The programme was more financially viable for institutions.
- It was conducive to language learning and enhancement.
- It increased students' postgraduate knowledge for no extra cost.

Summary of collaborative challenges:

- There was a need for assistance for personal matters during the in-between times.
- There was a problem with some students not having access to key information sources.
- Information flow about the programme organisation was sometimes limited.
- Some chose to make contact when needing support and some did not.
- There was a potential pastoral support gap.
- One designated academic counsellor, guide or advisor would help students.

Summary of collaborative benefits and challenges for technicians:

- They were very positive about the technology received by the institution.
- It was mutually beneficial.
- They saw the potential of this system for mass delivery across multiple sites.
- The role of technician and technical support was administered in an *ad hoc* way.
- Technical support operated on a lot of good will.
- A designated technician should be assigned within the pilot project personnel framework.

2. Digital technology integration

Evaluation question: *What was needed technologically to enable the delivery of a postgraduate qualification across multiple sites?*

Summary of digital technology integration:

- The initial set-up costs were around $33,000, but the ongoing annual costs for this method of delivery were minimal; in the vicinity of $4,400 per year.
- Equipment upgrades may be considered every five to seven years, instead of every three years.
- Institutional loyalties to different hardware providers should be stated up front.
- Potential connectivity and compatibility issues should be explored early on.
- The role of a designated pilot project technician should be established.
- A major issue was the security breach, and the need to create a hole in the fire wall for collaborating institutions.
- Scalability of the project would need to be further explored and tested.
- System upgrades, updates and backups are often carried out on weekends.
- A contingency plan for when the technology did not work should have been developed.
- Consulting with technicians when preparing timetables should be considered.
- Formal induction to the equipment should be provided.
- Be mindful of the tensions that exist when managing the technology during class time, after hours and across multiple sites.
- Identify and explore the technological culture of the prospective partnering institution early on.
- Institutional compatibility in regards to strategic development should be explored early on.

3. Teaching and learning transformation

Evaluation question: *What impact did this method of delivery have on teaching and learning, and on lecturers and students?*

Summary of pedagogical transformation resulting from *Te Kāwai Kūmara*

- Lecturers needed to 'up their game' and adapt their pedagogy to suit the technologically enhanced delivery mode.
- Lecturers looked beyond potential barriers and technological challenges and just got on with the task at hand.
- Lecturers focused clearly on the greater purpose of language revitalisation and creating a critical mass of postgraduate students.
- Lecturers worked extremely hard, with dedication and passion, to teach stimulating, engaging and informative classes.
- Lecturers had faith in the ability of students to be successful.
- Some lecturers broke the content up into 40-minute blocks.
- They provided time away from the screen to think about things.
- Lecturers worked constructively with students to assist their knowledge construction.
- They allowed time to just talk, before getting into the learning.
- They checked up on student progress in between videoconference sessions.
- They sent necessary information to students well in advance.
- Lecturers addressed students by name.
- They encouraged reluctant participants to take a more active role.
- They used a combination of different technologies simultaneously.
- Lecturers used a split screen to show key information in different forms.
- They provided a combination of real-life, real-time, static imagery and text to highlight new information in a range of ways.
- Lecturers mentioned ā-tinana, as an extension of kanohi ki te kanohi.
- They saw the bigger purpose.
- Lecturers identified the flow-on effect of the technology that had been provided.
- They were used as site exemplars, to showcase their innovation with other institutions.

Pedagogical challenges

- Lecturers compromised preferred pedagogical approaches for the collective gain of the group.
- Lecturers felt more exposed, and had to up their game, to keep the students engaged through this new medium.
- Oral assessments and presentations encroached upon teaching and learning time.
- Creating flipcharts for the board took too much time.

Students would have liked to:

- see information stored on one central learning management system for later reference

- receive copies of the handwritten notes or scribbles made on the board during classes.

Summary of student learning strategies:

- Younger female students in particular mentioned that they often tended to struggle alone, or they would ask a lecturer at their site for help.
- One adult female student buddied up with another person in her class.
- Students would have liked an ā-tinana experience, such as a wānanga at the start.
- Students felt that they needed to adapt as this was the medium of delivery.
- Some students arrived early and asked for help before the learning started.

4. Research capacity and capability

Evaluation question: *What impact has* Te Kāwai Kūmara *had upon increasing research capacity and capability of Māori scholars?*

Summary of ways that research capacity and capability were increased

- Lecturers had academic hopes for their students to complete a postgraduate research qualification. They considered this as making a contributing to the research environment.
- Three out of six lecturers are enrolled in a PhD. Two have completed their PhD already.
- The technology was used for PhD supervision, and to discuss potential research projects and writing for publication.
- The lecturers were very busy so research meetings need to be scheduled and kept.

5. Support techniques for postgraduate students

Evaluation question: *What effective support techniques can be identified for postgraduate students when utilising advanced digital technologies?*

Summary of student support techniques:

- Support personnel for pastoral, academic, administrative and technical matters were needed during the in-between times, such as between videoconferences.
- Support roles were not clearly defined.
- There was a gap around remote site support for students.
- Students felt the need for more lead-in time to the programme, to the courses, to the personnel and to the technology.
- Security and support roles were needed after hours, especially on the days that classes ran, and especially if there was only one person joining the class from any particular site.

6. Increased participation

Evaluation question: *How has increased access to highly regarded reo Māori academics improved postgraduate opportunities while studying across multiple sites? What have the benefits or challenges been?*

Summary of the benefits and challenges when students were provided with access to high-quality lecturers while studying across multiple sites

- Without *Te Kāwai Kūmara*, students would not have been able to start, or complete a postgraduate qualification in Te Reo Māori.
- For all, a vision had been realised.
- A cohort of seven students was supported through to successful postgraduate diploma completion over an 18-month period.
- Low numbers across the different sites was challenging in terms of student interaction.
- There was a lack of student collegiality out of class.
- An alternative cost-effective contact medium could be modelled for kanohi ki te kanohi contact in between times.
- The return time of emails from different project personnel was at times slow.

7. Interdisciplinary potential

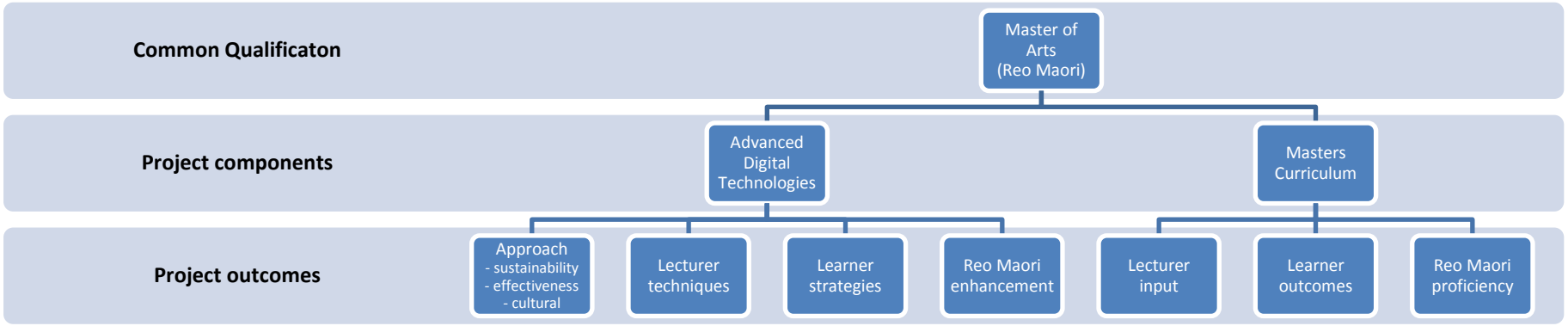
Evaluation question: *What potential do integrated videoconferencing and interactive smartboard technologies have for other academic disciplines?*

Summary of interdisciplinary potential:

- Videoconferencing was not used as a teaching tool prior to 2008.
- Science, nursing, health sciences, midwifery and business are disciplines exploring the use of videoconferencing in their undergraduate courses.
- It is proactive in responding to course rationalisation and inter-institutional collaboration.
- Māori departments are becoming site exemplars, used to showcase their innovation with other institutions and also across their own institutions.

Appendix H: *Te Kawai Kumara* Evaluation Framework

Funder: AKO Aotearoa
Collaborative Partners: AUT University, Victoria University, Christchurch Polytechnic
Pilot project aim: To build the research capability and capacity of Maori scholars
Pilot project objectives: To advance lecturer skills in teaching and learning through research in the Maori language
To identify effective support techniques for postgraduate students when utilising advanced digital technologies
To identify pilot project efficacy in terms of the use of advanced digital technologies
*To increase access to highly regarded Reo Maori academics
*To increase opportunity for to engage in Reo Maori postgraduate studies. (*added subsequent to project approval)



Evaluative focus:

Objectives achieved

Areas for improvement

Benefits and challenges for learners, lecturers and collaborators

Potential benefits for others

Data collection methods:

Surveys, interviews, field notes

Key areas:

Collaboration

Technology integration

Teaching and learning

Research capacity and capability

Support techniques for postgraduate students

Student access to high quality lecturers, while studying across multiple sites

Inter-disciplinary potential

Appendix I: Synchronous Delivery Kit