

Exploring a culturally-sensitive blend of initial teacher education for Rotorua schools: Online on a regional campus with Māori

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Abstract

This paper explores the emerging effective practices identified by student teachers and their lecturers with increasing blending of online learning in the course offerings for initial teacher education on a regional campus. Research as part of the University of Canterbury Bachelor of Teaching and Learning (Primary), conducted by researchers based in the Rotorua Regional Centre, has evolved with support of Rotorua schools in response to their needs. Evidence was gathered through interviews, focus group discussion, observations of e-learning, and reflective discussions by the three lecturers about their experiences.

Thematic analysis identified emerging 'effective practices' in the blended learning and teaching. A strong sense of ako (reciprocity of learning and teaching) and tuakana-teina (mentoring and reciprocal mentoring) was displayed as students and lecturers embarked on individual and collective learning journeys to improve their pedagogy and study skills through the blending of learning management system (LMS) and video conference with on-campus activities. The most effective practices involved the use of forums for course-related discussions and the use of video conference for tutorials and recording of lectures made available through the LMS. In future students also would like to see a greater use of LMS tools such as Grade Book and drop box for more cost-effective and timely assessment and feedback.

Note: Māori language has been included in this chapter (with short explanations) as is appropriate in an article that has a focus on cultural relevance in New Zealand. Readers are also encouraged to use a dictionary such as <http://www.maoridictionary.co.nz/> produced by Te Tumu o Te Whare Wānanga o Ōtākou.

Introduction

Given the 2011 Rotorua Year 2 cohort are among the first University of Canterbury (UC) College of Education (CoEd) students who have studied online using the Moodle-based Learn learning management system (LMS), we were keen to gain their perspectives of effective practices during their first three semesters of study. Blended and online learning and teaching benefits student learning and achievement and is rapidly growing practice in all sectors of education worldwide (Davis, 2011; Larreamendy-Joerns & Leinhardt, 2006; Means et al, 2009; Oosterhof, Conrad & Ely, 2008), including the school sector (Barbour 2011; Barbour, Wenmoth & Davis, 2011; Davis & Ferdig, 2009), as well as education for adult learners with literacy and numeracy needs (Davis & Fletcher, 2010) and indigenous institutions such as wānanga in New Zealand (Greenwood, Te Aika & Davis, 2011).

Teacher education institutions increasingly use online and blended programmes to reach more future teachers and also to extend support to students when they are off campus and in schools (Davis, 2010; Davis, Mackey, McGrath, Morrow, Walker & Dabner, 2010). However there is little or no research focusing on the kind of Māori and non-Māori ethnic mix that reflects our Rotorua student body. We therefore had a strong local motivation to research this context with our students and share the findings with our UC colleagues to continue improving learning and teaching practices in our own institution and beyond. Lecturers discussed and debated their perspectives of being both learners and lecturers within this e-learning environment. More broadly this research supports the goals of the New Zealand government's Tertiary Education Commission in "... increasing the achievement at degree ... levels of under-represented groups, especially Māori and Pacifica students ... and enhancing support structures within universities"

(Ministry of Education, 2008a. p. 14). Finally, the research may also be relevant for initial teacher education worldwide to inform the design of programmes that increase cultural sensitivity for indigenous peoples.

Relevant research, literature and theory

This research is informed by literature related to distance learning, blended learning and e-learning (for example, Skelton, 2008; Zhao et.al, 2005), and Māori research (for example, Smith, 2005; Tiakiwai & Tiakiwai, 2010; Wong, 2006). The following section will briefly explore some of the emerging key concepts and related theories.

Skelton (2008) investigated the learning environment of blended delivery in a tertiary setting. From the students' perspectives the blended learning provided access to studying on and off campus and it provided flexibility regarding when to study. However, for some of the predominantly online students, there was still an aspiration for the "... buzz, and presence of other students" (Skelton, 2008, p. 91). Kehrwald (2010) suggests that social presence is a vital aspect for effective e-learning, with the value of establishing a sense of being with others (telepresence) and becoming part of a community, enhancing success. Zhao et al (2005), in their study of the effectiveness of distance education, identified interaction – both between peers and instructors – as one of the important factors for success. Other factors included the right mix of humans and technology, the appropriateness of the content, and the recognition that certain learners would be more able to take advantage of distance education. Learners' abilities to succeed in distance learning appeared to be influenced by early identification of concerns and effective intervention to support them. Elbaum et. al. (2002) outline seventeen essential elements "that make up a successful high-quality online course" (p. 7).

A recent overview of information and communication technology (ICT) in initial teacher education by Davis (2010) explains that ICT is incorporated into initial teacher education for multiple purposes. At the University of Canterbury, ICT employed in its

courses for many purposes and this paper focuses on the purpose of increasing access to teacher education. The three main purposes according to Davis (2010) are:

(1) preparing teachers to use ICTs in educationally effective ways with respect to standards or competencies; (2) preparing K-12 teachers to teach ICT-related content; and (3) applying ICTs to serve teacher education. ICT applications to serve teacher education include digital images, electronic portfolios, and the use of technology to increase access to education. Major challenges described include faculty and organizational development, equitable access to ICTs, and the complexity of researching ICT teacher education. (p. 217)

There have been misconceptions that Māori do not welcome e-learning (Davis & Fletcher, 2010) and in this research it is important to acknowledge how Māori may perceive learning and teaching in an online and blended learning context. Literature relating to e-learning and kaupapa Māori education and training highlights the importance of incorporating Māori cultural practices (May, 2009). Effective relationships are the key to effective e-learning practices, complemented with appropriate and respectful incorporation of Māori culture and language. In their literature review of e-learning within a Māori context Tiakiwai and Tiakiwai (2010) found that the inclusion of Māori cultural practices, such as whakawhanaungatanga, which can be interpreted as “‘familiness’, to ensure everyone is comfortable, respected, and has the opportunity to voice their views” (Wilkie et. al., 2001, cited in Wong, 2006). This can facilitate better student engagement with the e-learning process. Tiakiwai and Tiakiwai (2010) also stress the importance of collaboration for successful e-learning: collaboration as a practice of teaching and learning, collaboration as a process for interaction and development between resources and participants, and collaborative relationships.

This review of the literature supported the researchers to design their research and analyse their evidence in a case study of culturally-responsive blended learning. The case study starts with a description of the regional centre and the initiative that frames it.

The Rotorua regional centre and its programme

In 2011 over 800 future teachers were studying with the University of Canterbury with over 250 in each of the three years of UC Bachelor of Teaching and Learning (Primary) degree programme. The initial teacher education programme based in the UC Rotorua regional centre is an initiative that provides students a blended e-learning option of this qualification, which enables students in this location to study in a flexible way from their own homes. Within this initiative the cohort of students attend face-to-face professional inquiry/studies classes weekly during primary school terms during which relevant Māori language and kaupapa are modelled, including occasional use of the marae near the classroom of the regional centre. All other courses are studied through a flexible learning option (FLO) at a distance with support from the Rotorua lecturers.

All the professional placements are in Rotorua schools supervised by the Rotorua lecturers who also maintain a very strong partnership. The university's learning management system (LMS) called Learn, which is an implementation of the Moodle open source software, the major site for learning and teaching described later in the findings section. FLO courses include two blocks lasting two weeks per year of residential schools based in Rotorua, and a total of four weeks intensive study on campus per year plus weekly professional enquiry classes. This method of delivery has proven to be a popular choice in a region with one of the highest percentages of Māori populations in Aotearoa New Zealand. This culturally responsive online blend of teaching and learning has included e-learning modes of delivery since 2003 when a previous LMS called StudentNet was created by Glen Davies for the College.

Since the start of the Rotorua regional initiative in 1997, and at the request of schools in this region (Hunt, 2007), there has been a gradual shift in FLO course delivery from print-based or telephone communication to online learning, and a greater use of computer and video conference communication. These shifts have often been in response to the needs of students and/or the college, which was stimulated by the increasing availability of online access and digital tools to support learning and teaching. Changes have accelerated since 2010 so that Learn has become the central location to orient most students.

In 2010 the University of Canterbury changed its LMS to a version of Moodle called Learn. In the same year the university's primary teacher education programme was strategically revitalised in a project led by Niki Davis so that all LMS courses were redesigned and only one course site was permitted for each course, regardless of the range of offerings. In 2011 UC policy shifted emphasis from print to digital resources so that course readers and workbooks became accessible through Learn and also on CD. This change helped to further embed Learn as an essential learning and teaching tool in all courses. Hunt, Mackey, Dabner, Morrow, Breeze, Walker and Davis (2011) report that Learn has become an important part of the shared social space and repository where collaboration occurs between teaching and support staff as well as students in their programme: "Learn has become 'a one stop shop' open 24 hours a day for students and staff that provides links to all aspects of each student's programme and is a place where they can find advice and support from peers, even when the university is closed" (Hunt et al 2011:1). In addition, Learn became a vital form of communication and support for all students following the February 2011 earthquake in Christchurch (see Mackey, Breeze, Buckley-Foster, Dabner, & Gilmore, 2011) for further information on the University of Canterbury response to the earthquakes).

Methodology

Seeking an appropriate research design that includes indigenous people was informed by the researchers' understanding the Māori concept of *manākitanga* (respect) and applied it to the design and ethical considerations. Smith (2005, p. 98) suggests the importance of involvement at every stage in decision-making about time and place, "Aroha ki te tangata, a respect for people – allow people to define their own space and meet on their own terms".

This research aimed to produce a case study using an interpretive approach co-constructed in a *whakawhanaungatanga* manner. The aim was to develop a theoretical framework within which to consider the perspectives of the students and lecturers. The overall methodology focused on students and researchers working together in a

collaborative manner to explore multiple perspectives of effective practices used within Learn during the student teachers' first three semesters of study.

The Rotorua lecturers (three New Zealand European females) have also been students and studied through a range of distance learning programmes, including online courses for post-graduate diploma and masters papers in e-learning accessed through Learn or the earlier LMS StudentNet. The whole Rotorua cohort of 23 pre-service primary teacher students (20 female and three males) who began their studies in 2010, includes nine students who identify themselves as Māori, two Korean, and 12 New Zealand European. The age range of these students was 19–53 years.

The whole cohort of 23 year two Rotorua regional student teachers were invited to take part in this research project with the understanding that not everyone might wish or be able to participate. Ten women students consented, five Pakeha and five Māori. An open-ended individual interview strategy was used initially with four purposely selected students from the ten consenting participants to ensure both Māori and non-Māori perspectives were represented. There were two non-Māori New Zealanders (coded in this article as P1, P2) and two Māori (M1, M2) who the researchers selected to provide plenty of information. Each was encouraged to express their thoughts and opinions freely in relation to their perceptions of effective practices used within Learn.

A series of trigger questions was prepared to ensure a consistent focus for each of the interviews. The themes that emerged from the individual interviews were used to prepare a series of open-ended questions for a semi-structured focus group discussion that took place in week four of the cohort's fourth semester with all ten consenting student participants.

Any discussions beyond the emerging themes were supported and encouraged by the interviewer who facilitated the focus group discussion. The aim was to maximise participation so that the transcripts derived from the recording of each session would add to the rich data set. In addition to the interviews and focus group, the lead researcher, who was also one of the Professional Studies lecturers, observed face-to-

face the creation and ongoing development of a strong group culture on a weekly basis recorded in her field journal. The researchers also had focused group discussions to inform this study.

Analysis was thematic following commonly accepted procedures (e.g. Stake, 1995). A second stage of analysis to clarify the cultural relevance was guided by research mentor Niki Davis, University of Canterbury Professor of e-Learning.

Researchers' positions

The three female Rotorua University of Canterbury non-Māori researchers each have at least fifteen years of primary school teaching experience, 8–15 years in tertiary teaching, and they share a passion for innovative learning and teaching to meet diverse learners' needs. All three can speak some Māori language and normally incorporate Māori protocol on a daily basis because of their respect for Māori people. In addition, as initial teacher educators, the researchers are passionate about preparing future teachers to embrace ICT skills that will enhance their own and the learning of children in Rotorua as well as other parts of New Zealand. Hunt is coordinator for the regional campus and also a member of the Flexible Learning Option Sub-committee of the College of Education Executive, chaired by research mentor Niki Davis.

The researchers strived to identify their biases both in the methodology and in the evidence presented. As 'insiders' the researchers acknowledged their strong interest in meeting the educational needs of the region and their strong motivation for this programme to succeed. They aimed to minimise any potential bias by striving for a strong sense of whakawhanaungatanga.

Results and discussion

Throughout the interviews and discussions participants reported the importance of relationships (whakawhanaungatanga) and support (awhi) from both peers and lecturers as contributing to the effectiveness of Learn. There was evidence of ako (reciprocity of

learning and teaching) and tuakana-teina (mentoring) in many of the comments from participants. Lecturers commented on the fact that they were still learning to use the tools of Learn and found the students to be very supportive:

As a learner there are times when it can be intimidating when the students are more adept at IT technology than I am. However I have used students' talents to demonstrate to others. The students have supported my learning and enjoyed the reciprocal teaching-learning role" (L1).

This reflects the notion of ako where the teacher and the learner's roles can be interchangeable. It also shows tuakana-teina where the more experienced learner supports and teaches the less experienced learner.

Although the tools of Learn were seen to be a focus for the evidence for effective practice, it was the people behind the tools that made the learning effective. This is expressed well in a Māori proverb often used in the region and nationwide "He tangata, he tangata, he tangata!" that can be roughly translated as "It is the people, the people, the people!"

The researchers amassed a wealth of data. The four initial individual interviews were analysed first to identify the emerging themes. The focus group discussion of the ten students then confirmed the following as the key 'effective practices' within Learn:

- Forums to improve the development of peer support and individual reflection
- Video conferencing with the distant teachers to increase engagement with them as people
- Continuing evolution of e-learning strategies and tools was supported by both teachers and learners

Forums to improve the development of peer support and individual reflection

Forums in the Learn LMS enabled students and lectures to ask and answer questions, discuss issues, and give information and support. Figure 1 provides a screen shot of a

forum. Students felt a sense of community, collaboration and peer support through the use of forums: “collaboration, like you say, it is getting the mix right ... between individual and group as you say in the real world you do have to work collaboratively” (R1) and “you think I don’t know whether I should type that cause I’m putting myself out there but when you get feedback from other people you think I’m glad I did that” (M1).

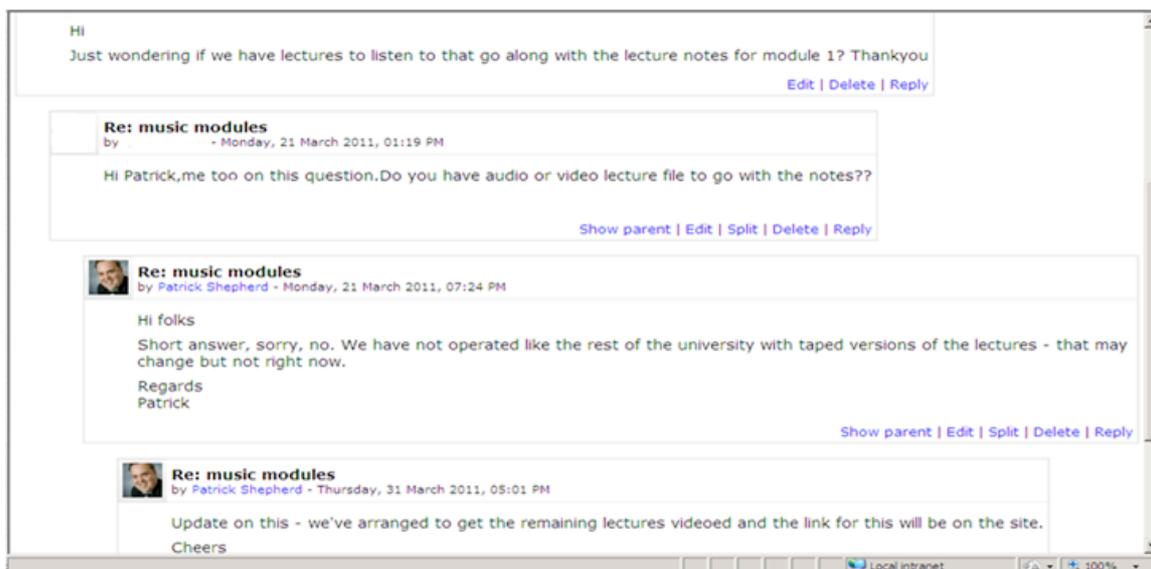


Figure 1. A screen shot of a thread in a forum inside a course in the Learn LMS that was part of the initial teacher education programme.

All four students interviewed were quick to cite the forums as being very useful for their learning and support:

Forums are good. They are really good. I like getting questions answered through there. Sometimes I don’t even need to ask the question because it’s already been up and the answers I read really from lecturers if the student answers with pretty much the same I’ll go with it but I wait for the lecturer. (M2)

However one of the Māori students also explained that she did not initially utilise the forums due to technical issues that made finding her way round the course challenging:

Accessing lectures through the forums and questions I find that really really easy ... I didn't use a lot of the forums at first cause I found it difficult to navigate around but that was because of my own computer issues. (M1)

Although the University of Canterbury College of Education is striving for a seamless learning management tool for both FLO and on campus students, there appears to be a need for several forums within Learn course sites to differentiate between the two groups:

Forums just fantastic absolutely fantastic I think having a distant forum and an on campus forum ... is essential. (P1)

When the Learn site first came out there would be personal comments in the area that should have comments for the study... but now over time they have changed it and they have an area for the personal comments and a different one for the work. That's made it really... awesome. (M1)

Residential school lecturer news on forums ... you get to prepare yourself. (P2)

All four participants strongly stated that forums are an informative and purposeful tool within Learn courses and the regular presence of lecturers within these forums was a vital element. The power of forums to develop student–student and student–lecturer relationships and learn from different perspectives was also evident:

The forums I like that part of it cause it's not just for asking lecturers questions it's like talking to other people as well that's what has surprised me about the work you can give your opinion ... you get different new perspectives ... heaps of the stuff is collaborative and you don't just work with Rotorua people ... you see that the lecturers are in there reading it and you think ... they do read it you know it's worthwhile. (P2)

There's this one lady ... from ChCh ... when the earthquakes happened I just felt so much empathy for the students ... when they were putting things like I am so confused I don't know where I am at, am I behind? ... I started posting back ... (M1)

We are posting comments on forums for readings we have to do and I posted a comment on a forum a couple of weeks ago and she used it in her lecture that is how powerful the forums are ... in the video lectures ... the majority of the students that I've seen in lectures are all European of white ethnicity so I think with the cultural studies in particular the comments that are put there by other ethnic races is really quite valuable to them to help them understand ... some of them don't see the perspectives of the other cultures ... so that is really cool. (M1)

M1 was quoted for something she said and we thought wow she (lecturer) goes through and reads them how many would she get updated into her emails and they actually interact with you and get back to you really fast. Lots think Learn is for distance not on campus but it's for both. Lucky to have it! (P2)

Elbaum et.al. (2002) suggest that “designing a learning community that is collaborative, engaging and inclusive” is an essential component of a successful online course. Forums appear to be one way of providing such an engaging and inclusive environment according to the Rotorua students interviewed for this project. However, this finding needs to be treated cautiously because the ten participants may over-represent those successfully engaged with their Learn courses. One of the Māori students individually interviewed shared “in all honesty... I have just recently learnt my way around Learn” (M2).

Identifying and providing extra support for such students within their first semester of study is vital and an area for development for both UC students and staff. Promoting and

closely monitoring students' inclusive and collaborative engagement within Learn right from the beginning of their entry into the programme is vital: "the good thing about the forums if you have a tutor/lecturer that checks it regularly they are more likely to answer it and it will save hundreds of emails with the same question"(M1). Students appreciate timely responsiveness of lecturers "I think lecturers responding to forums once a day is needed ... that's the point in forums ... it's more helpful to everyone if the answer is put on the forum"(P3).

The students perceived that more effective University of Canterbury College of Education lecturers were regularly and consistently striving to "facilitate discussions in a way that keeps students on-task, promotes full participation, and encourages peer collaboration" (Elbaum et.al. 2002, p.107). By providing space for a forum and time for peers to respond to each others' questions and perspectives, more effective lecturers appeared to be aware of the need "to engage with students without over-engaging" (Elbaum et.al. (2002), p. 109) and "include a balanced mixture of individual and group learning activities" (p. 105).

Through the forums students learn to discuss issues and ask questions in a professional way: "It's good practice those forums because you get practice at being professional." (P1) Lecturers agree with the thoughts of students and stress the benefits of forums:

"forums provide scaffolding for professional and ethical interactions ... provides opportunities for lecturers and students to clarify, question and extend learning ... an excellent tool that many students and lecturers seem to be using effectively." (L.3)

It is evident from the UC courses viewed that the lecturers designed their course in the Learn LMS differently. For example, the structure and number of forums within a course appeared to depend on the purpose and structure of the course. While students sometimes call for more consistency between online course structures, formatting and layout, an observation from this study indicates that course elements (including forums)

are more effectively designed to align with the course objectives and students' learning needs. The Learn LMS was not the only technology that was mentioned.

Video conferencing with the distant teachers to increase engagement with them as people

Videos of lectures and tutorials on the Christchurch campus were placed on Learn with increasing frequency so that students became able to view them when they chose and they were also able to replay them. Figure 1 shows a forum thread in which the music lecturer based in Christchurch responded to a student's request for video. Figure 2 provides a screen shot of the link inside the Learn LMS to video that provided 'Recorder help' for the music education course that required all the students to develop the competence to play either a recorder or a guitar.

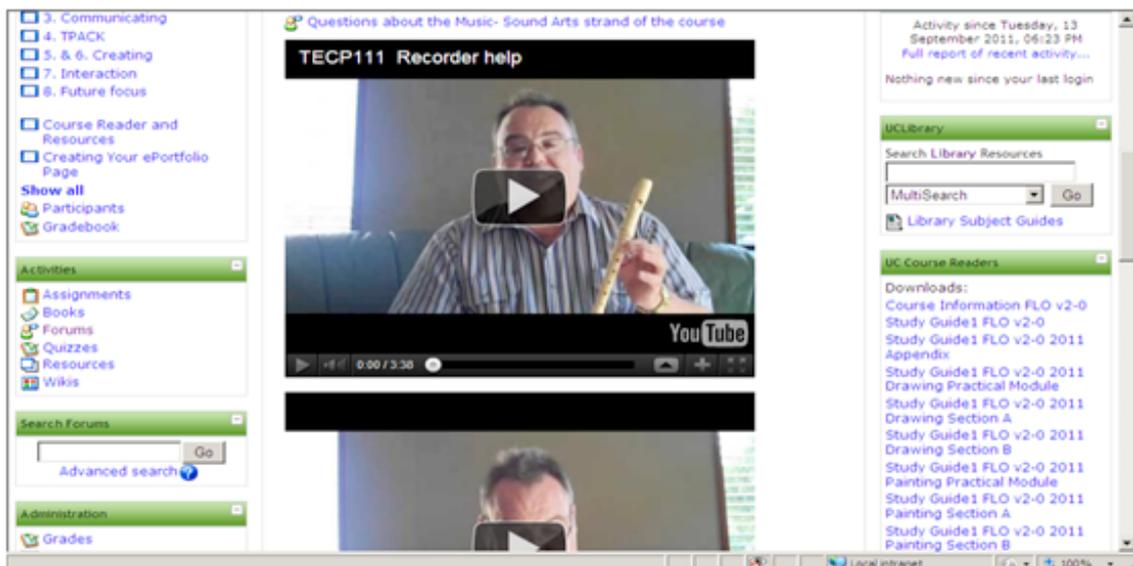


Figure 2. A screen shot of the link inside the Learn LMS to video that provided 'Recorder help'.

The value of video of lectures and tutorials within Learn was strongly voiced by all four students. As one student shared "I like it when the lectures are fully recorded ... I like hearing the questions the students are asking" (P2). The ability to view videoed lectures and tutorials appears to have made students feel like they were right there on campus.

This appears to have made a positive difference for all the interviewed students' learning.

This year brought in videos ... the video lectures make a huge difference to my learning ... (M1)

A video of a live lecture or class you just feel like you are there. (P1)

I like the way they give you the choice as well ... I can put the audio on my iPod and listen to it ... that works for me ... and it saves your internet ... I can probably see... we will be like in them, watching them live ... at the moment we have to wait like a day and a half for us to get them. (P2)

Early in 2010 both Rotorua students and UC lecturers expressed their frustration with only being able to have partial and edited clips of lectures. The most significant improvement within the period of this research appeared to be related to the use of videos of full lectures and other classes that took place in Christchurch. However, not all students had realised where all these videos were posted on the Learn sites and therefore had not viewed all that were available.

Elbaum et al. (2002) noted that "providing equal accessibility to all students" is a critical element of successful online learning. Full videos of the live lectures uploaded onto Learn were highlighted as an example of effective practice by all four students interviewed. One student suggested that ideally all distance FLO students would like the choice of watching lectures live or viewing the recording later. These would also be accessible to on-campus students if they had missed or needed to revisit a lecture. Such discussions raise many debates and potential issues for on-campus programmes. Lecturers have also discussed the use of different video clips for on campus and FLO students that may be designed specifically to meet the unique needs of some student groups, including this reflection that occurred during a group meeting: "FLO students are a different audience with unique understandings and needs ... some lecturers respect this and provide videoed lectures and tutorials specifically for them" (L3).

Continuing evolution of e-learning strategies and tools was supported by both teachers and learners

Lecturers are beginning to use the wide range of available tools as they become more aware of their value for students and their learning. The participants commented on several strategies that they are beginning to find helpful within Learn that rely on different tools of the LMS. Drop boxes and gradebooks were the two tools that all students felt needed to be more utilised for their assessments.

Drop boxes

Drop boxes are a tool on Learn where students can post their electronic assignments to the lecturer. The lecturer can then assess the assignment and return it to the student. Figure 3 provides a screen shot of a drop box in one of the courses studied, which incorporated a link to an Assignment tool.

The screenshot displays the 'Assessment Information' page for a course. The main content area features the following text:

Assessment Information

Assignments 1 and 2: Shared Reading Lesson (35%) + Reflection (25%)

Due Date: 8th of September 2011

Assignment 1 and 2 marking guide and description (FLO and Rotorua Students)

Assignment 1 and 2 marking guide and description (On-campus)

Example lesson plan

Online Drop Box

If you would like to submit your assignments online, you can do so in the drop box below. Please remember that your reflection must be hand-written, so this portion of the assignment must be scanned and uploaded if you choose this option. You are welcome to choose to hand in the hard copy of your assignments instead of using the drop box if you wish.

Best wishes,
Brigid

Assignment 1 and 2: Shared reading lesson plan and reflection

The sidebar on the left contains navigation links such as 'Course Information', 'Timetable', 'Groups for Workshops (on-campus)', 'Course Reader', 'Book Club', 'Assessment Information', 'Week 1: August 3 and 4', 'Week 2: August 10 and 11', 'Week 3: August 17 and 18', 'Week 4: August 24 and 25', 'Week 5: Aug 31 and Sep 1', 'Week 6: Sep 7 and 8', 'Week 7: Sept 14 and 15', 'Show all', 'Participants', 'Gradebook', 'Administration', 'Grades', 'Reports', 'Remove me from TECP110', 'Profile', 'My courses', 'Anne-Marie's Research', 'Associate Space', and 'BTCHLN Review'.

The right-hand sidebar includes a calendar for September 2011, an 'Events Key' with options for Global, Course, Group, and User, an 'Upcoming Events' section stating 'There are no upcoming events', and a 'Recent Activity' section showing activity since Tuesday, 13 September 2011, 04:03 PM, with course updates including 'Added Resource: John Everatt's lecture slides' and 'Added Resource: Parts of Speech and Apostrophes'.

Figure 3. A screen shot of a drop box in one of the courses studied.

Greater use of the drop boxes was a suggestion for future improvement cited by both Māori students when interviewed independently. They noted both time and cost benefits for them:

I like the drop boxes. It's a lot more cost effective for me to be able to just chuck assignments in there as opposed to posting it down. (M2's very first comment)

I like the drop box. I think it provides equality in the timeframe that we can deliver our assignments.

It's way cheaper.

This feedback plus feedback from other students has already resulted in improved guidance for staff in their design of courses in Learn, so that from 2012 new courses in the LMS will come with a section labelled 'Assessment' in which the Assignment tool will be applied as a link to a drop box. Additional support has also been designed to encourage greater use of the Grade Book by staff and students.

Grade Book

Grade Book is a LMS tool in which lecturers can place assessment comments and grades. The student can only see their own grades so a Grade Book provides timely access to results for Rotorua students who previously had to wait for their marked assignments to be returned from the Christchurch campus via the postal system. Figure 4 provides a screen shot of the Grade Book report for one student showing a link to feedback on a non-assessed item. This was before assessment was returned for other assignments that show in this view.

The screenshot shows a web-based grade book interface. At the top, there is a header with a 'Jump to...' dropdown and a 'Turn editing on' button. Below this is the main title 'Grader report' and a page indicator 'Page: (Previous) 2'. The main content is a table with the following columns: 'Assessment One: In-class task', 'Assessment Two: Shared ...', 'Assessment Three: Writing task', 'Category total', and 'Non Assessment Items'. The 'Non Assessment Items' column contains a link labeled 'Oral language terminology qu'. The table has several rows of data, all showing dashes in the assessment columns. The browser's address bar at the bottom shows 'Local intranet' and a zoom level of 100%.

Figure 4. A screen shot of the Grade Book report for one student showing a link to feedback on a non-assessed item “Oral language ...”.

All students valued receiving a recent formative assessment grades through the course site Learn, as highlighted by this comment by a non-Māori student:

I would like to see the grade book get used more cause campus students get to go in and get their assignment we have to wait for them to get sent and I think just put our mark up on there, that’s what they’re for and yeah we just got our literacy ones from there yah ... I like that part of it too they are starting to utilise all of those little tools things more. (P2)

... it also helps us monitor where we are at you can go in and say OK I got that for that part of it and that for that or I really need to work on that

Such feedback contributed to students’ time management, which was recognised as an important factor by all students interviewed. The availability and content of their Learn course sites enabled them to work efficiently and to be well prepared for the semester ahead, as one non-Māori student explained:

I like that it (Learn site) comes up 9 days before semester starts cause I go in have a look and see what they are... you can actually see what you are

doing and the Course Outlines are there before they are sent to you so you can have a look to see what the assignments are and your due dates for your calendar so that by the time that it (the course) starts you can get straight into it. (P2)

It is anticipated that the use of the existing and yet to be developed or released Moodle tools available within Learn will continue to evolve rapidly as is reflected daily in the 21st century world we are living within. Two such tools are the gradual move towards using the gradebook and drop box tools. These students were introduced to and used the drop box tool within their first two weeks of orientation in 2010. They find this tool very self-explanatory, user friendly and are keen to be able to submit more assessment tasks using this tool to save posting costs and for equity with on-campus students for submitting and receiving assessment feedback. A recent literacy grade that had been received through the gradebook tool was timely mid-semester formative feedback and was greatly appreciated by all students.

Other modes of delivery that complement Learn are face-to-face lectures and tutorials, emails and vidlinks (video conferencing). Vidlinks are live lectures shared with Rotorua students by video conference or tutorial sessions with a Christchurch lecturer that is viewed by students in their Rotorua classroom. Lecturers have seen an increase in engagement with course materials and improvement in assignment grades by FLO students who have participated in vidlink sessions: “students were able to see the lecturer and ask questions immediately, as he did the experiments ... it brought the learning alive” (L2).

The vidlinks provided an essential relationship-building component that was commented on by both students and lecturers. For example a Māori student said: “last year when we were just getting into it, the video [conference] camera going in the classroom and being able to talk to our lecturers that was really good ... gave us a face to a name” (M4). Images of people were also important as noted by one lecturer who commented in relation to her own learning, that “A photo brings someone alive and you are able to build relationships easier” (L1).

Cultural sensitivity

It is difficult to isolate aspects of cultural sensitivity in the e-learning tools of Learn, and the Māori culture and language is not often immediately visible in the online environment, except for the banner at the top of all Learn screens that can be glimpsed in Figure 4. Appropriate design is challenging because of the respect in which Māori designs and symbols are held. Several courses within all initial teacher education programmes develop students' understanding of the Māori philosophy, culture and language as well as developing skill in speaking the Māori language (te reo), and students experience an overnight retreat on a marae during one of their two week blocks on a campus. In 2011 a drop box was used to submit an assignment that required each student to record a mihi, which is a Māori greeting that is presented orally in te reo, and is essential for teachers working in schools with Māori. Māori culture is also integrated within courses as part of the content and pedagogy where appropriate. For example, New Zealand artists and images are studied in art education and course evaluations have provided evidence that this topic is best studied online for all students, including those in on-campus offerings in Christchurch.

The findings illustrate strategies for the inclusion of Māori cultural practices, such as whakawhanaungatanga to facilitate better student engagement with the e-learning process. They also illustrated strategies of collaboration for successful e-learning, including all three of those cited by Tiakiwai & Tiakiwai (2010): collaboration as a teaching and learning practice, collaboration as a process of interaction and development between resources and participants and collaborative relationships.

Perhaps the most important aspect of collaboration for us as regional staff is that of ako. The authors of *Ka Hikitia* (Ministry of Education, 2008b) use the Māori concept of ako to describe effective teaching (and learning). The work of Wong (2006) draws attention to tuakana-teina, "... the interchanging roles of being either the 'expert' or the 'learner'" (Wong, p. 47). The social presence of students and lecturers supporting each other through online communities reflects such tuakana-teina in practice. This concept holds that the teacher is also a learner and that the learner is also a teacher (Hunt & Macfarlane, 2011) as observed and experienced by the authors.

Conclusion and Recommendations

The Rotorua regional teacher education initiative is an example of a region's self-determination and capacity-building approach (Macfarlane & Hunt, 2011). The culturally responsive blended teaching and learning mode of delivery that includes a once a week face-to-face class on a regional campus site and since 2003 has included e-learning modes of delivery has proven to be a popular choice in a region with one of the highest percentages of Māori populations in Aotearoa New Zealand. The opportunity to stay within the home context with whānau (family) support has enabled the student teachers in this programme to practice in the schools where 93% on graduating have chosen to be employed. "Locally educated teachers [who know our children] and are committed to our 'local schools'" was a need identified by principals in 1997 (Hunt, 2007) and it continues today. In 2010 the core message in response to the threat of closure was that, in addition to serving schools with a high percentage of indigenous people in this region, the hybrid blended mode of teacher education was an important exemplar for our future, because the demographics of this special region will become the future demographics of many places in New Zealand.

This research provides insight into the perspectives of students and regional staff on evolving effective practices with online learning blended in a regional programme of initial teacher education. It became clear that the students valued the use of forums, video recordings and video conferencing to support interactivity and engagement with their teachers' personality, and that they recognised features such as the drop box and gradebook could streamline assessment and feedback processes. The findings of this research will contribute to the redevelopment of our university degree for implementation from 2012 (Brooker, 2010). The Rotorua regional centre was established in response to local needs, particularly to provide for a community where Māori make up a significant percentage of the population, so our stakeholders are keen to contribute to the degree redevelopment to ensure that this qualification continues to be responsive to locally identified needs that are also increasingly national needs. Thus this research study has already contributed to future policy and practice as staff and students strive together to maximise the potential of the e-learning, and continual

improvement is planned to the learning and teaching processes in our own institution. We also hope that the research will inform e-learning practices nationally and internationally, with more inclusive approaches for indigenous peoples.

Our regional campus experience during the last eighteen months has evolved more effective practices with Learn and other technologies that have resulted in improvements for both students and staff in the UC College of Education, and we have provided evidence to guide further improvement of culturally sensitive blended learning. The Māori concept of ako illustrates that this is a reciprocal relationship; we are all learners and teachers as we continue on this ongoing and exciting professional journey in initial teacher education with our goal to benefit children in New Zealand schools, particularly those close to us in Rotorua schools.

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