Hanging out, playing, messing around: ePortfolios and mobile devices for teaching Early Childhood Education

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Introduction

Bachelor of Teaching in Early Childhood Education (ECE) programme at Unitec Institute of Technology is a field based degree programme. This case study outlines a range of approaches and strategies developed during a self-review project exploring the affordances of m-learning and digital tools used in our programme. This review involved two lecturers that teach across a range of courses and co-ordinate the practicum and work experience components of the programme.

The Ako Aotearoa research project was a timely opportunity to further the work already taking place in the programme to increase digital literacy for both students and staff. In
this report we discuss the context within which we carried out our review, the philosophical underpinnings of our research and describe a few of our strategies along with the challenges we faced along the way. We see this as work in progress, with many plans for 2016 and beyond as we develop our own skills and understanding and students arrive from schools with mobile learning experience.

Context

Our programme has two intakes (cohorts) of students a year, in February and July, with up to 55 students in each of these intakes. The students are a diverse mix of school leavers and mature students from a wide range of backgrounds. The lecturing team is also diverse, consisting of both primary and ECE trained teachers with postgraduate qualifications up to Doctorate level. There are a range of disciplines including education, psychology and digital learning, ranging in age between their thirties and sixties with a mean age of 50 years. The team has a mix of devices available to them with Unitec gradually replacing desktops with laptops. Some of the lecturers also make use of other privately owned mobile devices. The authors were provided with an iPhone and an iPad mini as a part of this research. These devices were invaluable in enabling us to explore and model a range of possible pedagogical uses.

The project as a whole considered seven research questions: our focus was on three of these.

The values informing our self-review.

Underpinning this work was a philosophy that values mātauranga Māori, and playfulness as a learning disposition. These values directly influenced all the strategies we used with mobile devices and any digital tools introduced to our learners and

Figure 1: Our research questions

(http://mobilelearners.nz/learners-and-mobile-devices/media/Figure%201.jpeg).

Figure 2: Our interventions for #NPFLMD

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lecturing team. Within the literature on playfulness was a strong thread of social learning contexts which connected to communities of learners and practice (Wenger, 2006). The importance of relationships within a Kaupapa Māori approach connected powerfully with these ideas and led to the more specific intervention of creating a Facebook group for our programme and alumni. In order to offer more creative and playful possibilities we also introduced ePortfolios to the three cohorts identified earlier. Our third intervention (http://mobilelearners.nz/learners-and-mobile-devices/media/Figure%202.jpeg) was to increase our use of digital tools and digital literacy opportunities in the face to face teaching for which we were responsible. We used a rapid-iterative (http://99u.com/articles/6450/7-tips-for-rapid-iteration-aka-the-quirky-approach) approach (Greenhalgh & Koehler, 2015) that allowed for failure on a smaller scale as well as more responsive changes. Chun (2004) refers to a similar concept as agile teaching (https://www.researchgate.net/profile/Andy_Chun/publication/220886448_The_Agile_TeachingLearning_Methodology_and_Its_e-Learning_Platform/links/54d1edf40cf25ba0f04212f2.pdf). This approach was successful in this study where only the two lecturers were involved in decision making but may be problematic in other contexts where more elaborate consultation is needed.

Mātauranga Māori

Our programme aspires to work within a strong bicultural ethos. A number of key documents inform our practice in this area. Overarching policy from Government in the form of the Tertiary Education Strategy (http://www.nbr.co.nz/sites/default/files/Tertiary%20Education%20Strategy.pdf) (Ministry of Education, 2014) outlines the New Zealand’s government’s long-term strategic direction for tertiary education. Which includes a commitment to improve Maori success by ensuring programmes and teaching practices are culturally responsive and relevant to Maori. We are committed to this Maori success strategy (http://www.education.govt.nz/further-education/policies-and-strategies/tertiary-education-strategy/) ensuring that Maori learners are supported to succeed in our degree and that our practice is culturally responsive. This commitment is also guided by Te Noho Kotahitanga, which is Unitec’s document outlining our partnership with Maori (Unitec, 2001 (http://www.unitec.ac.nz/maori/who-we-are/our-partnership)).

Our practice was guided further by the model created by lead researchers on this project He Whare Ako, He Whare Hangarau: A house of learning, a house of technologies (http://mobilelearners.nz/learners-and-mobile-devices/media/Figure%203:He%20Whare%20Ako%2C%20He%20Whare%20Hangarau%3A%20A%20house%20of%20learning%2C%20a%20house%20of%20technologies.(Sciascia%20&%20Aguayo%2C%202014)
This framework is underpinned with concepts of ako and kaupapa Māori values, interwoven with mobile learning theories and approaches (Sciascia & Aguayo, 2014). The common threads drawn from all these strategies and policies are woven throughout our practice in this case study. All are focused on improving Maori success for learners and our communities.

Our programme has a commitment to whakawhanaungatanga (http://maoridictionary.co.nz/word/12711), which considers the relationship between members of a social group. This concept is applied to our learners and members of our wider learning community. Though the establishment of collaborative, responsive and reciprocal relationships we are seeking to establish an environment of trust for students and members of our wider learning community where they can play and create meaning from their experiences. We want to develop “creative, communicative participants rather than passive, reception-only consumers” (Alexander, 2004, p.29).

**Playfulness**

Play is at the heart of an ECE curriculum and both authors have a playful disposition when it comes to problem solving in creative ways. We do understand, however, that the term has negative connotations for anyone who considers play to be at one end of a work-play continuum. It was encouraging to find literature that supported our thinking and encouraged adults to be playful in their own learning.

We wanted to encourage learners who were excited by the learning opportunities rather than being able to just tick off that they had tried something new. A focus on performance goals is more likely to create learners who are focused on avoiding failure rather than being happy to just try things out (Dweck, 2008). Play does not always equal fun and this concept needs to be taught as well. Play can be hard work and often involves failure. Playfulness is an open-ended approach that opens the learner to unexpected outcomes and more latitude is what is ‘allowed,’ “providing a link to emotional, social and creative entrances to learning, and thereby increases the motivation to learn” (Katzeff, 2003, p.1).

Thomas and Brown (2009) suggest that play “provides [...] the opportunity to leap, to experiment, to fail, to fail and continue to play with different outcomes or to “riddle” one’s way though a mystery” (p.9). This is what we wanted to achieve for ourselves as well as our team and our students as we riddled our way through how mLearning and digital tools could benefit us while keeping quality pedagogy at the forefront. It was of critical importance that all members of our learning community developed a sense of agency, of ownership of their individual progression and processes, and appropriated the tools for their own purposes (Hamid, Waycott, Kurnia & Chang, 2014; Thomas and Brown, 2009; Wright, 2013).
The idea of learners as players fits within our community of learners/practice approach (Lave & Wenger, 1991; Thomas & Brown, 2009), which we discuss later in this report. Within our community of practice we soon realised we were also seeing, although at first unknowingly, the participation typology developed by Mimi Ito and her colleagues (https://mitpress.mit.edu/books/hanging-out-messing-around-and-geeking-out) (cited in Thomas & Brown, 2009). These were “hanging out”, “messing around” and “geeking out”. This typology was a moment of “aha” for both of us.

‘Hanging out’ is the most basic level of participation. Often seen in “lurkers” in online spaces, hanging out is also similar to peripheral participation in community of practice literature (Lave & Wenger, 1991). Learners can undertake low risk activities such as observation, learning the unwritten rules and discourses of a community before making themselves more visible and vulnerable as they begin building their identity and seeing what their relationship to others in the community might be (Thomas & Brown, 2009). We saw this phase clearly in the activity of our students in all of our interventions. ‘Messing around’ is the beginning of taking agency that was observed in some students and the next phase, ‘geeking out’, has been observed in only a few students so far but we expect this to increase as they become more confident over time. We had to create a ‘space’ where students and staff felt safe to play, increasing their self-efficacy and willingness to take risks as they moved through these three phases of participation in mLearning.

**Interventions and strategies**

**ePortfolios**

We began by attending workshops and a course on Mahara ourselves, as well as considering and playing with a range of other platforms such as Wordpress, and Blogger. Prior to this project we had been using ring binders for students to compile teaching portfolios as evidence for their assessments. In July 2014 the first cohort was required to use an ePortfolio of their choice, with Mahara being the default option. As new cohorts began, they were also required to use these to document evidence for their assessments. We anticipated concerns from lecturers and students in learning...
how to best use ePortfolios and we provided face to face workshops and tutorials, online 'how to' videos and one on one 'help desk' support as needed. The newest students found this change the easiest as they did not have to unlearn the procedures for a ring-binder type portfolio. We provided support for lecturers for grading ePortfolios, both face to face and online. Another strategy that has worked well was the piecemeal introduction of ideas for the portfolio, increasing the complexity of what was required as groups became more familiar with the basics, one step at a time - a strategy we called 'eating the elephant'.

ePortfolio strategies to improve learning choices and opportunities for students:

- using mobile devices to create video mihi to introduce learners in e-portfolio
- video learners' individual teaching philosophies
- use of images and other media sharing the students stories and whakapapa
- Tuakana/teina relationship grouping learners with more or less competent peers
- Provision of a template as an option for students still nervous about their portfolio process
- Students could choose platforms other than Mahara but only three have done this so far.
- Moodle checklist tool (https://moodle.org/plugins/mod_checklist) in all three cohorts to create a 'to do' list for students so they could keep track of the year long portfolio assessment.
- A completion bar on their Moodle page

Challenges included getting students started, ensuring lecturers were providing formative feedback although they were still learning themselves, ensuring students’ support teachers in their work experience placement were upskilled as well. More of these challenges and some of our solutions are listed in Appendix A.

Engaging in facebook: How did we build this, how did it develop?

We decided to explore Facebook as an informal learning environment within which to build a community of practice (Lave & Wenger, 1991; Thomas & Brown, 2009). Kaupapa Maori notions of whanaungatanga describe a sense of belonging a larger whole of the collective. “Whanaungatanga is about knowing you are not alone, and that you have a wider set of acquaintances that provide support, assistance, nurturing, guidance and direction when needed” (Williams & Broadley, 2012, p.8). We recognised a direct relationship between this notion of whanaungatanga and communities of practice (CoP). This social learning theory, developed by Lave and Wenger (1991), provides an analytical framework to describe how a CoP can lead to learners sharing knowledge, evaluating new practices, and sharing a repertoire of practice (Wenger, 2000). The Facebook group was set up in Semester 2 of 2014 and lecturers and students invited to participate through face to face interactions as well as placing a clear link on Moodle courses. To date we have 229 members including some who have been accepted onto the programme for next year and some graduates.
Facebook strategies:

- whanaungatanga through a community of practice
- sharing ideas for teaching practice in learners home centres
- building a less formal relationship with lecturers on the programme
- empowering learners to make a contribution
- engaging in responsive online chat to build confidence
- establishing a culturally safe, respectful online environment
- providing opportunities for tuakana/teina relationships to develop between cohorts and with alumni.

In setting up a Facebook group for our programme the intention was focused more on student experience than academic engagement, although the hope was that both would happen. There were challenges but these were greatly outweighed by the positive outcomes (See Appendix A). We have found that Facebook groups can serve as a digital support group with real time communication, which can be a part of the complex mix of academic and other factors involved in student engagement (Coates, 2007). We had positive student evaluation comments and more informally, a graduating student’s comment at a farewell ceremony “I wouldn’t have got through without our facebook group”. Almost all students reported a range of ECE and cohort Facebook groups having a positive influence on their engagement with coursework and their feelings of being supported, with 50% reporting the programme Facebook group was a positive influence. For us these findings cast some doubt on the more negative reports in the literature on facebook as a distraction rather than a tool for increasing engagement (Wise, Skues and Williams, 2011).

**BYOD in the classroom: Digital Literacy**

Whanaungatanga creates opportunities for learners to participate in a CoP; beginning with a powhiri for students and lecturers, and continued through an intensive face to face orientation programme. We created opportunities for students to engage in a blend of mLearning and collaborative experiences and reflective conversations. Tuakana/teina relationships were key to our project. These were built within and between cohorts. We also observed many opportunities where lecturer became learner as students were able to share their knowledge.

In-class relationships between learners were enhanced through

- group work in orientation week creating a video of the course learning outcomes
- exploring te reo Maori me ona tikanga in Early Childhood Education
- active learning strategies using BYOD for group research
- Pinterest as a research and collation tool sharing ideas and perspectives
- learners verbally sharing their unique perspective, stories and ideas
- development and sharing of mihi to support understanding and the creation of connections between people
• establishing a culturally safe environment where learners can share

While most experiences made use of students’ existing devices, we also used a class set of iPads for certain activities to ensure students without devices were not disadvantaged. These devices were owned by the wider faculty and were bookable by several departments, which made their purchase cost effective. While we made every effort to use free and open source software, we did acknowledge an increasing personal bias towards Apple products and apps, which has been a barrier at times, for example, when using iMovie in class. We have identified this possible bias and have committed to ensuring we are providing more alternatives moving forward, so that neither students nor lecturers are confident in using only one operating system. In many ECE centres teachers are not allowed to use their own devices for privacy reasons and they will need to have confidence in a range of transferable skills.

Our staff and students have a broad range of digital literacy abilities. This has impacted on the uptake of m-learning technologies and people’s ability to recognise the pedagogical affordances of these technologies (Johnson, Adams Becker, Cummins, & Estrada, 2014). While we are committed to following the wider institutional eLearning strategy we are also aware that we need to ensure our team and students are supported to make the changes required. We tried to make visible the relationship between pedagogy and mobile learning tools in the hope that people will come on board with the new ways of doing things. Our interventions provided repeated assurances that failure was likely as a part of the process and that this should not be allowed to impact on their view of themselves as capable professionals (Wright, 2013). It was important to model to students and colleagues that one mLearning tool may not work for all. Cognitive playfulness in this process was seen as an essential learning disposition that was likely to lead to creative and innovative problem solving (Tan & McWilliam, 2008 (http://cultural-science.org/journal/index.php/culturalscience/article/view/13/50)).

The research questions - a summary of our findings.

Our project originally identified three research questions that we strove to answer. Although we feel that we will be working on these for some time to come, we have summarised the answers we have so far. Challenges and solutions that came up in each of our strategies are listed in Appendix A.

1. What kinds of support are required for lecturers in their professional learning about effective use of m-devices?

• ‘just in time’ professional learning
• provision of video tutorials as back up to workshops
• permission to fail repeatedly - as long as you do not give up
• encouragement to play
• institutional e-learning strategy
• access to suitable devices

2. How can learners use the devices they already own more effectively in their studies?
We found the following strategies were particularly useful. As we increase the focus on digital literacy in our programme we expect this list to grow.

• A BYOD policy backed up this access to a class set of devices
• lecturers take care that any required work can be completed on any device
• encouragement to play - try things out
• timely feedback from lecturers
• ongoing support in tutorials- face to face and online
• sharing their discoveries with each other
• permission to fail repeatedly - as long as you do not give up

3. How can Maori pedagogies be better integrated into learning and teaching and what roles can mobile devices play in these pedagogies?
We focused on the following concepts in our work but there were many others we will look at more in the future. These ideas did not require additional work, just the use of another layer of lenses when making decisions.

• Ako - recognising ourselves as teachers and learners at the same time
• Tuakana -teina relationships - learning from more knowledgable peers including students teaching lecturers.
• Whakawhanaungatanga - relationships are at the core of success
• Whakamana - empowering learners to take charge of their own work e.g. portfolios represent the learner rather than the institution.

Looking forward to 2016

Figure 5: Where to next? Our plan for 2016
In 2016 all six of our new courses have a learning outcome related to digital literacy which will promote student use of devices and tools. As we alter assessments to ensure enable students to develop increasing skills and confidence across their learning programme, we will begin with orientation material delivered online to complement the face to face orientation process.

We are also considering how we can develop our playfulness approach. One plan is to incorporate more gamification principles in our work and to begin with this will include identification of how we can motivate students further using Kim’s social action matrix (http://amyjokim.com/blog/2014/02/28/beyond-player-types-kims-social-action-matrix/), which was based on Bartle’s player typology. Part of this process will probably include creating eBooks for student use and augmented reality apps for fun and for learning.

We will also be looking more deeply into the agile teaching and learning literature, sparked by our interest in Chun’s (2004) paper on this topic and our institution’s emphasis on agile and responsive teaching.

**Conclusion**

We are focused on creative problem solving rather than just developing uses for specific tools. Effective tools still include a pen and paper, or a reflective conversation. Sometimes the solution is a digital tool. As we move into a future where more of our students will come from schools who have incorporated mobile and elearning tools, we will be in an even better position to explore a range of projects. Ongoing professional learning for our lecturers will continue as will a focus on bicultural approaches to our work and finding ways to make the work fun, even when it’s also hard work. Being a part of this project has been overwhelming at times, always exciting and has created a ‘try this’ list that is many times what it was at the beginning. And that is where we are now. It’s just the beginning.
Digital literacy and student adoption
(http://mobilelearners.nz/learners-and-mobile-devices/eportfolios.2)
(http://mobilelearners.nz/learners-and-mobile-devices/eportfolios)
(http://mobilelearners.nz/learners-and-mobile-devices/mobile-social-media.2)
Mobile Social Media
(http://mobilelearners.nz/learners-and-mobile-devices/maori-pedagogical-approaches.4)
Māori pedagogical approaches
(http://mobilelearners.nz/learners-and-mobile-devices/professional-development-for-mlearning.2)
(http://mobilelearners.nz/learners-and-mobile-devices/professional-development-for-mlearning)
Professional Development for mLearning


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