

Discipline Specific e-Training for Trades Tutors

Integrating Theory with Practice Using e-Technology

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Contents

Executive Summary	3
Objectives.....	5
Overarching Methodology.....	6
Key Findings	9
Implications for Teaching and Learning	15
Pilot Programme Detail.....	21
Recommendations	24
Summary	24
Reference List	25

Executive Summary

It is increasingly recognised that e-learning, in its variety of forms, provides learners with more choices and contributes to the development of skills, competencies and hence employability (Clayton & Elliot, 2008). Being aware of effective e-teaching techniques and strategies is central to improving the e-learning and blended environments of trades training students who are often practically minded and visual. These types of learners often prefer the variety of teaching and learning methods prevalent in mixed mode delivery (Brown, 2003).

The main challenges for teachers integrating e-learning into their practice to create blended learning environments are overcoming a fear of technology and the impact on their workload. For many teachers, it is this fear that sits behind resistance to facilitating learning activities online (Stacey & Gerbic, 2008). Providing on-going professional development for staff, in addition to the staff-release time necessary for them to engage in such training, is seen as a vital element in overcoming resistance and facilitating successful e-learning and blended environments (Clegg, Konrad & Tan, 2000; McCarney, 2004; Shepard, 2004; Stacey & Gerbic, 2008).

However, e-learning training is often delivered by IT experts or academics, making it difficult for trades tutors to relate it to their own practice. Trades tutors often spark enthusiasm among their peers at conferences and in training sessions, because they use familiar industry terms when speaking about simple methods to engage learners online. Technology-based training offered by trade practitioners who speak the language of the participants has the potential to be highly effective.

The Theory to Practice project developed an effective **Discipline Specific e-Training Model** for trades tutors (see Figure 3: Discipline Specific e-Training Model, p. 14) that can be led by a trades tutor (for training other trades tutors). This was achieved by implementing a pilot training programme for hairdressing tutors that was developed and led by a hairdressing tutor who has received national recognition for her e-learning practice. Participants were provided with the opportunity to review, evaluate and discuss their e-learning experiences; this process is crucial to the development of effective practice (Clayton et al., 2008). It enabled participants to gain a comprehensive understanding of e-initiatives in hairdressing and how these teaching skills could be integrated into their current practice (Bennett, et al., 2007). The programme was focused on relating theory to practice through the use of problem-based case studies, discussions and quizzes, all in an online environment. The programme participants and their students were surveyed, with adjustments being made to the model as a result.

At the same time, a literature review was undertaken on blended learning environments (combining face-to-face with e-learning components) in the context of New Zealand's unique bi-cultural environment. The majority of the literature was focused on four major themes: organisational commitment, staff capability, technical resourcing and support, plus student capability. Outcomes of the literature review fed into and helped further develop the Discipline Specific e-Training Model for trades tutors (Figure 3, p. 14).

In addition, a Blended Learning Project was being implemented across one of the large ITPs (Institutes of Technology and Polytechnics) at the same time that the Theory to Practice pilot was underway in the same institution. The focus of the Project was on the use of Blended Learning Champions and communities of practice to support staff in rethinking their existing programmes and modules. The findings from this project also informed the development of the Discipline Specific e-Training Model for trades tutors, as illustrated in Figure 1 below.



Figure 1: Development of the Discipline Specific e-Training Model

The outcomes of the Theory to Practice project show that the pilot training programme was effective in empowering hairdressing tutors, in the sense that they subsequently felt positive about using a range of technologies to facilitate learning. However, it emerged from participant feedback, outcomes and the literature review that other considerations need to be taken into account, in order for participants to actually develop e-learning programmes within their organisation. These include:

- Organisational commitment: staff release – PD /technical training; course development time
- Technical resourcing and on-going technical support
- Commitment to building student capability
- Discipline specific development

(See Figure 2: Four Key Considerations, p. 12)

Many of the participants involved in the pilot were able to introduce technology in a minor way, such as using video clips in their PowerPoint presentations, but could not implement e-learning until their organisation committed to the purchase of a Learning Management System (LMS).

Other tutors with access to an LMS cited lack of course development time as a reason that they were not yet instigating e-learning for their students. This includes staff-release time for tutors to attend training and participate in communities of practice to build their own technical capability. Tutors need the time to introduce e-learning and create blended learning environments as a “scholarly and transformative redesign process”, as opposed to “tacking on” technology (Littlejohn, Campbell, Tizard & Smith, 2003; Stacey & Gerbic, 2008).

As well as providing the LMS and adequate resourcing time, organisations must provide on-going technical support for tutors and students who are teaching / studying in an e-learning environment.

To address student capability, a staged Student Capability Model (see Figure 4, p. 21), has been developed based on student feedback and the literature review. The model can be used to scaffold the development of transferrable skills that support students in blended and e-learning environments and as graduates in the workforce (Chandra, 2006; Lynch & Dembo, 2004; Nunan 1999).

New Zealand's unique bicultural environment was considered when developing the Student Capability Model. New Zealand literature was examined in order to understand Māori learning practices within mainstream or non- wānanga blended-learning programmes. These were integrated into the model.

Objectives

The primary objective of this project was to develop a discipline specific e-training model (Figure 3, p. 14) that can be applied to any trades discipline.

The model is intended to provide tutors with the skills to help students integrate theory with practice through e-learning.

Additional goals included:

- improve teaching – by the sharing of skills that enable technology to be used to appeal to all learning styles
- increase learner engagement – by introducing a broader variety of learning mediums while sharing proven teaching and learning strategies
- expand resources – by developing practical e-learning tools that can be used to engage students in learning
- Initiate and facilitate an on-going Community of Practice – by encouraging the participants from each occurrence of this programme to join the e-learning community of practice for hairdressing educators on the Ako Aotearoa Centre for Tertiary Teaching Excellence website.

On the whole, these objectives were met. However, although a number of attempts were made to initiate a community of practice on the Ako Aotearoa Centre for Tertiary Teaching Excellence website and Facebook, these failed. The reasons for this are largely due to the lack of time-release for tutors to be involved in these types of professional development opportunities (see Figure 2: Four Key Considerations, p. 12).

Overarching Methodology

Theory to Practice Pilot Programme

A pilot training programme was held over a six-week period that involved five weeks of online tasks and one face-to-face session. Participants for the programme were all North Island hairdressing tutors who were selected on the basis of recommendations from the Hairdressing Industry Training Organisation (HITO). HITO suggested organisations that had shown an interest in incorporating e-learning into their teaching practice.

The programme facilitator was a hairdressing tutor who had been nationally recognised for her blended learning practice by receiving an Ako Aotearoa Tertiary Teaching Excellence Award for sustained excellence. This facilitator had developed her practice through professional development opportunities that included networking with tutors from similar disciplines to build on teaching and blended learning practices.

The group of 30 participants consisted of tutors with varying levels of experience from very new to those with ten or more years involvement in tertiary teaching. Approximately half the participants were employed by Institutes of Technology and Polytechnics (ITPs) and the other half by Private Training Enterprises (PTEs).

The face-to-face day was held during week four of the programme. The online environment used for the pilot included a shared space where participants discussed their progress with their peers, reflected on the learning in a closed space with the facilitator and shared resources. In addition, each participant was given a 'sandpit site'*, which was their own e-learning 'shell' that was developed by the participants as a resource and could then be used with their students. (Further detail is provided in the 'Pilot Programme Details' section of this document).

Each week the participants set up various resources and learning activities for their students on their sandpit sites. For example, one week they linked to or embedded a YouTube video on their site and the following week they set up a task centred on the video. The tasks that were designed for students included case studies, identification of good and poor practice in the videos and answering questions on the videos. The student activities were set up for students to work in groups or as individuals, depending on the activity.

Additional activities which had been set up and used by the facilitator previously were shared as were pre-prepared case studies on various topics. An inquiry-based approach to the activities that were designed and shared was used, with participants having to engage in additional research or work in groups to solve problems.

*sandpit site: this is a development site inside an LMS such as Moodle, where trainees can experiment with developing the online components of a course: for example, include, format and edit text; embed images/videos/other files; create links to the internet.

Online participant questionnaires were used during the face-to-face day and after-programme completion surveys were completed via email. In addition, students of those tutors who subsequently introduced e-learning programmes were surveyed through a questionnaire administered by their tutors six months after completion of the pilot programme.

Ethics approval was gained from the Waikato Institute of Technology Human Ethics in Research Committee.

Literature Review

Alongside the Theory to Practice project, a literature review was completed on blended learning environments in the context of New Zealand's unique bi-cultural environment. Initially the review set out to define blended learning. A definition was developed by merging the common themes from the literature:

“Blended learning refers to the ‘blending’ of traditional teaching approaches and learning technologies. As the learner progresses, there is an increased mix of traditional instructor-led training, synchronous online conferencing or training, asynchronous self-paced study and structured on-the-job training from an experienced mentor. As the student builds learning capability, the teacher becomes coach and collegial relationships amongst peers are used as a resource.” (Bruce, 2011, p. 7)

The majority of the literature was focused on three major themes: managerial strategies, staff capability and technology support. (Malfroy & Rankine, 2008; Marshal, 2004; Wood & Friedel, 2009). A fourth theme was identified within the literature studied as part of this review: the development of student capability and transferrable skills that enable learners to work effectively in more flexible learning environments that blended learning programmes provide.

As a result of this review, a Student Capability Model (see Figure 4, p. 21) was developed that could be used to scaffold the development of transferrable skills that support students in blended learning and as graduates in the work environment (Chandra, 2006; Lynch & Dembo, 2004; Nunan 1999).

New Zealand's unique bicultural environment was also considered. New Zealand literature was examined in order to answer the question: can Māori pedagogy be integrated within a mainstream blended learning environment? Bi-cultural practices were built into the Student Capability Model (see Figure 4, p. 21).

Blended Learning Project

Running simultaneously with the Theory to Practice pilot programme and literature review was a Blended Learning Project. The project involved 'Blended Learning Champions' facilitating communities of practice across a large Technical Institute (Blended Learning Champion Group, 2011). The findings from this project were compared and collated with the Theory to Practice findings.

The concept of colleagues of the same or similar disciplines leading teaching staff through the process of developing blended learning programmes is similar to the discipline-specific focus of the Theory to Practice pilot. However there were differences, most notably in the development and maintenance of communities of practice. The Blended Learning Champions were each given up to one day per week to participate in Blended Learning training activities and forums, and to coach their colleagues through the process of 'blending' their programmes. The training involves on-going and integrated development through face-to-face sessions, field trips to other organisations and group presentations/workshops held by the group for the wider organisation. Clear expectations such as the redevelopment of specific programmes and provision of support for peers were expected by management.

The group was initiated in January 2011 and is currently active as a community of practice. Some members of the group are facilitating additional formal and informal communities of practice on particular interest areas within their individual schools and across the organisation.

These communities are supporting and sharing practice in a number of new initiatives such as:

- e-portfolios for evidence collection in work-based learning
- simulation and virtual reality
- inquiry and project-based Learning
- Wānanga practices as components of mainstream programmes

These initiatives have all been integrated into blended learning programmes within the organisation. Examples of these components have been generated and interest is growing, as are the communities of practice.

Key Findings

Participant Feedback

Comments from the initial pilot programme participant evaluations and remarks posted on the discussion boards indicate that all participants surveyed found the programme to be a rewarding experience. Seventeen participants completed online surveys and those that did not were contacted by phone or email. All participants surveyed used the internet regularly, but few had any experience facilitating online learning. Only one had experienced being an online learner prior to participating in the programme and one had facilitated online learning.

It was pleasing to see the students being at the centre of this learning experience for many of the participants. In a chat forum, one participant commented “I find this irritating but my students will love it!” During the face-to-face day, many comments were made about the value of getting past the frustration experienced while working with technology because of the benefits to students.

All of the participants commented positively on how the students would benefit from the skills and resources they were developing as part of the programme. The key benefits for students were outlined as:

- Flexibility of time and place
- The inclusion of a variety of learning strategies and resources
- Courses will be more interesting and therefore more engaging

Participants were asked what could have been better about the programme.

- Three of the participants commented that they did not have access to the necessary technology in their workplaces, so could not open videos; one of these could not even access the internet during work hours. An assumption had been made that all participants would have access to the necessary technologies.
- Four participants suggested the addition of printable instructions to be included alongside the instructional videos.
- Two participants commented that they would have preferred the course to be held over a longer period of time.

Some of the participants shared a sandpit site and it was unclear in these cases which participants had completed all of the tasks. This made it difficult to confirm exactly how many participants completed the programme; however, 24 sandpit sites were developed in total.

It is interesting to note that, one year after the Theory to Practice programme was completed, eight tutors in one Polytechnic have set up and facilitated e-learning across all of their existing modules to support their face-to-face teaching practice. This was possible due to organisational commitment in the form of time-release for tutors to set up e-learning components.

A Private Training Enterprise that was involved started making enquiries about purchasing an LMS in order to facilitate e-learning eighteen months after the pilot course completion.

Student Feedback

A survey was administered for students from three different hairdressing programmes that included e-technologies integrated by Theory to Practice participants. Initially these students used technology in class with the support of tutors, Learning Technologists and IT staff. Tutors helped students to set goals, in order to build autonomous learning skills. Students interacted with both their tutors and peers as part of the e-learning environments, extending the relationships that were built in the classrooms. As these were lower level programmes (Levels 1 – 4), students were generally working in Level 1 of the staged Student Capability Model that was developed from the literature review (see Figure 4: Student Capability Model, p. 21).

All students recorded either neutral or positive overall responses to the integration of e-components into their programmes. These findings align with literature that indicates that many tertiary students now see e-learning as an expected and integral part of the learning process (Concannon, Flynn & Campbell, 2005).

Some of the students surveyed could access the e-learning through mobile devices. These students all commented on the ease of access, although some commented that working on their e-learning activities was easier on the computer. Additional comments were:

- *It was handy to be able to recap for tests, look up picture for clients and for finding ideas for hairstyles (on my mobile device)*
- *You can watch the videos (of practical demonstrations), again and again*
- *Moodle (Learning Management System) gave me one-on-one time with my tutor (using a journal tool)*
- *Computer is just easier to use and you can get information faster*

All of the students surveyed had received initial technology training and reported receiving on-going support from their tutor and/or a technical advisor; many commented that this support was necessary.

The increase in accessibility noted by the students has allowed the tutors involved to extend the learning relationships that they have developed in the classroom into the workplace and beyond. Students on the programmes were able to engage in problem-solving activities (centred on case studies) with their peers outside class, in flexible learning time. In my own experience, I have found this engagement with peers strengthens learning relationships and builds collaborative learning skills. Working within flexible timeframes can help develop learner autonomy.

The journal tool mentioned in the student comments above allows students to reflect on their own practice and enables tutors to give feedback based on those reflections in a 'closed' or confidential space. As the students mention, it gives them 'one-on-one time' with their tutor that they would not normally receive in a busy practical environment.

The journal and forum tools used by the participants in this project have allowed students to maintain the learning relationships with their peers and their tutors while in work-based learning

environments – capitalising on the learning that occurs while the students are gaining experience in industry and integrating theory with practice through e-technology.

Four Key Considerations

The participant comments and pilot outcomes indicate that, although discipline specific e-learning training will support tutors in facilitating meaningful e-learning environments for their students, there are actually four key considerations (see Figure 2: Four Key Considerations) that organisations need to make to fully support tutors. These include discipline specific development, organisational commitment (development time for tutors and resourcing), on-going technical resourcing and support and a focus on building student capability.

	Discipline Specific Development	Organisational Commitment	Technical Resourcing and Support	Student Capability
Development	Introductory training programme	Staff capability and on-going development	Reliable, well-supported technologies with just-in-time support	'Scaffold' training and on-going support for students
Communities	Communities of practice established and actively maintained	Organisational support for community involvement	Technical support for maintaining communities across organisations	Peer support groups (communities of inquiry)

Figure 2: Four Key Considerations

Feedback and outcomes showed that there were numerous areas for improvement of the pilot programme, many of which are closely linked to the four key considerations above. These included:

- Access to technology: an assumption was made that all tutors would have access to computers at work and that these machines would have internet access and be able to run video files; this was not the case.
- Length of the programme: Some participants reported that the programme was held over a limited time span and therefore it was difficult to achieve full participation due to work commitments.
- Lack of time available to join and participate in a community of practice: due to work commitments, many participants did not have time to actively participate in the communities of practice initiated on both the Ako Aotearoa website and Facebook (where a second attempt at setting up a community of practice was made).

The fourth consideration – student capability – emerged from the literature review, and is outlined in the 'Student Capability Model' (see Figure 4: Student Capability Model, p. 21).

Discipline Specific Development

The idea of discipline specific tutor development in e-learning is closely linked to the concept of communities of practice. The co-construction of knowledge that takes place in these types of communities can feed into a common pool of knowledge and build shared resource banks (Singh, 2003; Singh & Graham, 2001). Collaboration with other organisations and access to open source resources becomes commonplace (Singh, 2003; Singh & Graham, 2001), and providing a range of high quality teaching materials for students becomes more achievable. Littlejohn & Campbell (2003) and Stacey & Gerbic (2008) suggest that the creation of shareable and reusable digital resources is a cost and time-efficient development strategy. Teachers are able to develop high quality teaching materials with reduced effort, while sharing and discussing content with colleagues. The time invested in developing such resources initially will ensure that content stays fresh and engaging with minimum effort through the collaboration that can take place within an online community of practice (Littlejohn & Campbell, 2003; Stacey & Gerbic, 2008)

Participant discussion during the pilot programme indicated that when tutors are engaging with technology to share and develop resources and teaching materials, they are working and communicating online in a similar manner to that required when facilitating students in online learning. In other words, online facilitation skills are being developed and modelled during this process.

However, facilitating an online community of practice across organisations can be difficult. During the Theory to Practice programme, participants were engaged with the LMS which was used in developing and discussing their sandpit sites. When the community was shifted to a website upon course completion, participants no longer engaged in the community. Typical comments were:

- *'It was somewhere new I had to get into and learn how to use'*
- *'I wanted to participate but got so busy with my students there was no time'*

The latter comment was the most common reason for participants' lack of involvement.

The Blended Learning Project successfully initiated and maintained a blended learning community of practice that led to the development of 'sub-communities' within the organisation (Blended Learning Champion Group, 2011). The key difference in these two examples is the organisational commitment to on-going training and time-release to enable staff to be involved.

Discipline Specific e-Training Model

The opportunities for improvement that were identified in the pilot programme data, the Blended Learning Project findings and the literature review have all led to a more holistic e-learning training model being generated that involves organisational commitment. See the table (Figure 3) below:

	Development	Communities	Outcomes
Discipline Specific Training Programme	<p>Programme held over a 7 – 8 month period</p> <p>Participants complete tasks that lead to the development of a blended learning module</p>	<p>During programme, participants will discuss progress, share resources, resource development and teaching strategies as set tasks through the community</p>	<p>Participants have planned and developed resources and materials for at least one blended learning module</p>
Organisational Commitment	<p>Participants have time available to complete monthly tasks and attend three face-to-face training days</p>	<p>Participants must have time to contribute in community activities and complete the set tasks</p>	<p>Organisations have at least one blended module developed</p> <p>The opportunity exists for organisations to share newly-developed modules (each organisation chooses different modules to develop and share)</p>
Technical Resourcing & Support	<p>Participants have access to a PC that will run media files and broadband</p> <p>Participants have access to a Learning Management System that is supported by their organisation</p>	<p>Participants have on-going support available to use the technology required to participate in community tasks</p>	<p>Participants have developed additional capability and now require less technical support</p>
Student Support	<p>Student-support mechanisms available within organisations</p> <p>On-going peer and tutor support structures will be planned by participants as part of the training programme</p>	<p>Tasks will be planned for peer support groups and communities of inquiry as part of the module development that takes place during the programme</p>	<p>A range of support structures are in place for students entering blended learning modules</p>

Figure 3: Discipline Specific e-Training Model

Organisational Commitment

There are numerous reasons why learning organisations should be committed to supporting the implementation of e-technology to enhance programmes of learning. The reach of an organisation is extended both locally and globally when travel and distance issues are reduced by including e-learning components (Bonk & Kim, 2004; Higgins, 2004; Littlejohn & Campbell, 2003; Singh, 2003; Singh & Graham, 2001). Superior resources can be developed through the increased collaboration that blended environments can promote. Development time and cost can be optimised through this shared creation of resources (Higgins, 2004; Littlejohn & Campbell, 2003; Stacey & Gerbic, 2008). Teachers are also able to collaborate with workplaces to support learners through blended environments (Singh, 2003). The increasing globalisation of education coupled with economic pressures is seeing an increase in class sizes within many organisations. Blended environments can help retain teaching quality while making economical use of space.

Garrison, Kanuka and Hawes (2004) outline the issue of teachers being asked to re-think their teaching and to apply more of an inquiry-based approach in order to facilitate blended learning environments – this is where organisational support is imperative. The value of allowing time-release for staff to join communities of practice and other development programmes is highlighted when comparing the Blended Learning Project with Theory to Practice. By allowing participants time to participate in community activities and support their colleagues in blending their programmes, the organisation in question has been able to plan towards a minimum target of 40% of all modules offered in a blended form (a minimum of 20% flexible learning – flexibility of time and place), over a three-year period. A total of 85% of all modules are now web-enabled, with help from the Blended Learning Champion Group (Blended Learning Champion Group, 2011).

These outcomes build a case for giving time-release to staff to engage in blended learning planning and development activities, including participating in communities of practice. Add to this the internally-generated professional development opportunities that occur through staff running workshops and sharing resources, and organisational commitment to communities of practice starts to make good business sense.

Some of the Theory to Practice Participants began to develop their e-learning components 10 months after the programme finished, due to teaching commitments. These participants commented that, by this time, many of the skills acquired during the programme needed to be relearned. This situation highlights the need for organisational commitment in the form of time allowance for development as well as training when integrating e-learning into existing teaching practice.

IT Resourcing and Support

Another key aspect of organisational commitment to e-technology is the provision of technical resources and on-going IT support. During the Theory to Practice programme, many participants were limited by the technical resources available to them. Many shared a PC in their workplace and often could not access media files required for their training. Only those participants that did have

access to an LMS and IT support through their organisations went on to facilitate e-learning programmes for their students

Implications for Teaching and Learning

Student Capability Model

The key implications for teaching and learning emerged from the literature review. The review considered the benefits and a number of challenges in developing and implementing blended learning programmes, particularly in a New Zealand tertiary teaching environment. The primary focus was on the challenges that students face while learning how to learn in these environments. There is a necessity to build student capability and transferrable skills that will help them succeed not only in these non-traditional learning environments, but also as graduates in the workforce (Chandra, 2006; Nunan 1999;).

The practice of staging or scaffolding the development of these skills was a recurring theme within the literature (Chandra, 2006; Nunan, 1999; Salmon, 2002; Walker & Vom Brocke, 2009). A staged model to build student capability and transferrable skills was developed, based on the work of educators from across the globe, as many of the challenges that are faced are similar across western-style tertiary teaching environments (see Figure 4: Student Capability Model, p. 21).

Integration of Māori Pedagogy

A uniquely New Zealand consideration, however, has been the fact that we work and learn in a bi-cultural environment. Mainstream classroom practices are often not inclusive / engaging for Māori students (Hook, 2007). If some of the critical success factors for Māori are missing in general practice, it seems an even greater challenge to include these concepts within our blended environments.

“The literature reveals that when Maori first made landfall, they already practiced a range of pedagogies and curricula, including: students and teachers at the center of educative processes, life-long intergenerational learning, and gradual learning from a familiar starting point, recognition and encouragement of giftedness, and learning and teaching conducted from the students’ strengths.”

(Hemara, 2000, p.1)

When reviewing the literature, it becomes apparent that much of it focuses on developing strategies to build lifelong learning skills, scaffolding learning and putting the students back in the centre of the learning experience. It seems, therefore, that early Māori would have a lot to teach us about education. However, the issues for Māori learning within New Zealand’s traditional mainstream education system go much deeper, indicating that careful thought should go into developing blended environments that support Māori achievement.

New Zealand education was built on the European cultural beliefs of the early settlers, with the idea that Māori would conform to this system. This unfortunate assumption has led to the disassociation

of Māori culture from education, disengaging many Māori students from mainstream learning (Hook, 2006).

A preferred Māori pedagogy is a concept known as ako. This is a reciprocal process where teaching and learning experiences are shared by the teacher and student, who often switch roles. Ako also describes a holistic approach to learning (Ferguson, 2008). Ferguson describes the key principles of holistic pedagogy as “connectedness, inclusion and balance” and explains that these are constants in Māori education. These three principles are included in Māori education through manākitanga (caring), aroha (love), tohatoha (sharing), whakatenatena (encouragement) and atuaturatanga/wairuatanga (spiritual synergy and spirituality), (Ferguson, 2008). Laws, Hamilton-Pearce, Werahiko & Wetini, 2009, summarise ako in a paragraph:

“Teachers who embrace the concept of ako build caring and inclusive learning communities where each person feels their contribution is valued. Ako is about building relationships that empower both the teachers and the students within the Wānanga ...”

The concept of ako has been captured in Te Whare Wānanga o Awanuiarangi’s eWānanga (electronic Wānanga) environment. This blended approach offers a flexible mix of bilingual and bicultural activities for students and aims to create a ‘virtual wānanga’ experience for students. (Laws, et al., 2009).

The term eWānanga combines English and Māori languages to link two concepts: one based on the use of ICT and the other on mataturanga Māori (Māori knowledge). To assist in the facilitation of the ICT component, a range of digital resources were developed that are based on traditional Kaupapa Māori methodologies. Examples of these materials include: karakia (prayer), mihi (introduction), whakapapa (genealogy) and waiata (songs) (Laws, et al., 2009).

Ferguson, (2008) describes how pouako (lecturers) have supported students enrolled in the Te Iti Raerea Bachelor of Teaching and Learning Early Years programme at Te Whare Wānanga o Awanuiarangi. The programme included a weekend on campus (noho wānanga) with face-to-face teaching every 3-4 weeks, video conferencing from the main campus to both Wellington and Auckland at the noho wānanga and online support. This is marketed as a flexible programme suitable for students in employment and those who want to work with young children in Māori settings.

Ferguson, (2008) noted that Māori students often feel isolated online as the relationship aspect of teaching and learning can be perceived to be missing. Kanohi kitea, to be seen or visible, is considered to be an important aspect of Māori society and is just as vital to learners in an online environment. It is imperative for students to know that they are being supported by their Pouako and the acknowledgement of student contributions is vital. Ferguson (2008) observed that if a student is not acknowledged by the teachers after three to four contributions, they often disappear. Further, if the Pouako is not visible for more than one week, students will stop contributing to the forum.

Relationship building and visible support were key contributors to student success. Ferguson, (2008) added that adhering to Māori tikanga or customs within e-learning programmes can encourage a sense of belonging, especially for those who have concerns around the use of technology and blended learning environments.

Taking such a holistic approach to the online components of blended learning environments would help quell concerns around the lack of trust, involvement, empathy and morale that can be experienced during face-to-face sessions (Merham, 2009). Perhaps these concepts could be infused throughout a blended learning programme. Certainly the concept of ako incorporates learning support structures that are absent from many other models. How can ako be incorporated into a student capability model that is focused on a mainstream environment?

Hook refers to the inclusion of Kaupapa Māori in many mainstream programmes as ‘tack-ons’.

“Whether mainstream institutions could ever be adapted to meet the educational ambitions of Māori seems doubtful because the changes called for are too radical and the problems too institutionalized to be overcome easily. In addition, it seems unlikely that a kaupapa Māori philosophy would ever be adopted by a mainstream institution.”

(Hook, 2007, p. 9)

However, studies have taken place to consider critical success factors for Māori in mainstream institutions, and these organisations have made a clear commitment to Māori achievement that goes beyond mere tokenism. Greenwood and Te Aika (2010) conducted a study across four programmes within four New Zealand institutions: two mainstream polytechnics, a university and a wānanga. Reporting documents are routinely used to quantify this achievement in terms of enrolment, retention and completions. The investigation that took place examined the qualitative factors that achieved these results: ‘the complex attitudes, policies and practices’ (Greenwood & Te Aika, 2009). The study was aimed at investigating exemplars of success for Māori in tertiary education. The focus was on Māori success and what types of support assisted this achievement, as opposed to many previous studies that highlighted underachievement by Māori.

In each of the organisations investigated, stakeholders were interviewed including management, teaching staff, students and members of iwi and community groups. Wider institutional documentation was discussed, such as charters, strategic plans, accreditation, programmes documents and media files. A co-investigative and co-constructive approach was used, allowing stakeholders to actively participate in the research. This methodology aligns comfortably with Māori values and is aimed at promoting Māori development (Greenwood & Te Aika, 2010).

Despite the diversity of the four programmes and organisations studied, the analysis of Māori success identified five over-arching principles:

- *Toko a-iwi, a-wānanga, Institutional and iwi support*
- *Tikanga, the integration of Māori and iwi values and protocols*
- *Pukenga, the involvement of suitably qualified leadership and staff*
- *Ako, development of effective teaching and learning strategies*

- *Huakina te tatau o te whare, opening up the doors to the house*

(Greenwood & Te Aika, 2010)

Toko a-iwi, a-wānanga relies on an institutional commitment to involve iwi in the programme's ongoing development. This occurs through consultation, strong visibility of local iwi in advisory roles and as staff members and through input into content and observation of local tikanga. The impact of this degree of inclusion, say Greenwood & Te Aika (2010) allows iwi to 'own' the programme – thereby encouraging active support.

Greenwood & Te Aika (2010) support Ferguson's (2008) earlier comments that the integration of tikanga Māori encourages a sense of belonging and add that iwi and Māori students they studied saw this as an indicator of the programme's cultural integrity. It is important to note that in the mainstream sites that were studied, Greenwood & Te Aika (2010) found tikanga Māori inclusive of Pakeha. Pakeha students felt supported by their Māori peers, while Pakeha staff members were valued for their commitment to Māori perspective and continual improvement.

Ferguson (2008) highlighted the importance of pouako involvement which aligns with the third principle uncovered in Greenwood & Te Aika's (2010) study. Pukenga involves highly skilled staff, strong leadership and Māori role models. There is a focus on teaching staff who are prepared to be co-learners with students, and Pakeha staff members are particularly valued when they commit to continuous development within a Māori context.

The reciprocal learning approach adopted by staff fits within the ako model that forms the fourth principle of the study. Ako encompasses the relationships formed in the learning environment and recognises differences and individual learning styles but uses the 'power of the group' as a resource (Ferguson, 2008; Laws, et al., 2009; Greenwood & Te Aika, 2010).

The fifth and final principle, huakina, refers to the removal of barriers to study. Some of these barriers may sit within the organisation and the students' family and financial situations. The constant examination of these factors and provision of immediate support is a key to student success. The type of support required could be provided by student support services external to the programme, but must also be built into the programme. Provisions that allow students to work from home at times, give flexibility in deadlines and ensure that students have the learning capability to work at the programme level are imperative to student success (Greenwood & Te Aika, 2010).

The study undertaken by Greenwood & Te Aika (2010) examined principles that were firmly integrated within specific programmes within mainstream institutions. Could elements of these principles be interwoven into our mainstream blended programmes? Allowing all students to benefit from the concepts of reciprocal practice, supportive, collaborative and inclusive environments and the recognition of cultural identity and self-awareness would surely benefit all students (Nevgi, Virtanen & Niemi, 2006; Rossett, Douglas & Frazee, 2003; Salmon, 2002).

The fifth principle identified in Greenwood & Te Aika's (2010) study – huakina – aligns particularly well with our emerging staged blended model (see Figure 4: Student Capability Model, p. 21), and could form the support that sits behind each stage of learner development. Similarly, so would

pukenga, strong leadership with clear vision and well-qualified, supportive staff who are prepared to engage in the continuous learning journey that enables teachers to work in a bi-cultural context (see Figure 4: Student Capability Model, p. 21).

Recognition of Tikanga could be integrated alongside ako where Māori students become teachers of their values and practices and are supported by staff to ensure Māori Kaupapa becomes intrinsic to daily practice. To support the authenticity of this principle, 2-3 day wānanga could be held in place of some of traditional classroom-based teaching (Ferguson, 2008), and 'virtual wānanga' environments can be created on campus and online (Ferguson, 2008; Laws et al., 2009; Greenwood & Te Akia, 2010). The concept of students as teachers could be scaffolded within the emerging model, beginning by encouraging all students to recognise their cultural identities and own world views in level one, then involving the students as teachers sharing their beliefs, customs and values in level two (see Figure 4: Student Capability Model – based on Chandra, 2006; Ferguson, 2008; Greenwood & Te Akia, 2010; Laws, et al. 2009; Rossett et al., 2003; Singh, 2003; Vaughn, 2004).

Pukenga would need to be relied on here to ensure that the values were 'lived' as opposed to the 'tacked-on' tokenism referred to by Hook (2007). The involvement of local iwi as teachers would be of great value and could support the learning of pakeha staff. Toko a-iwi, a-wānanga would be closely linked to the building of the knowledge required by staff to support these values and encourage their implementation (Greenwood & Te Akia, 2010).

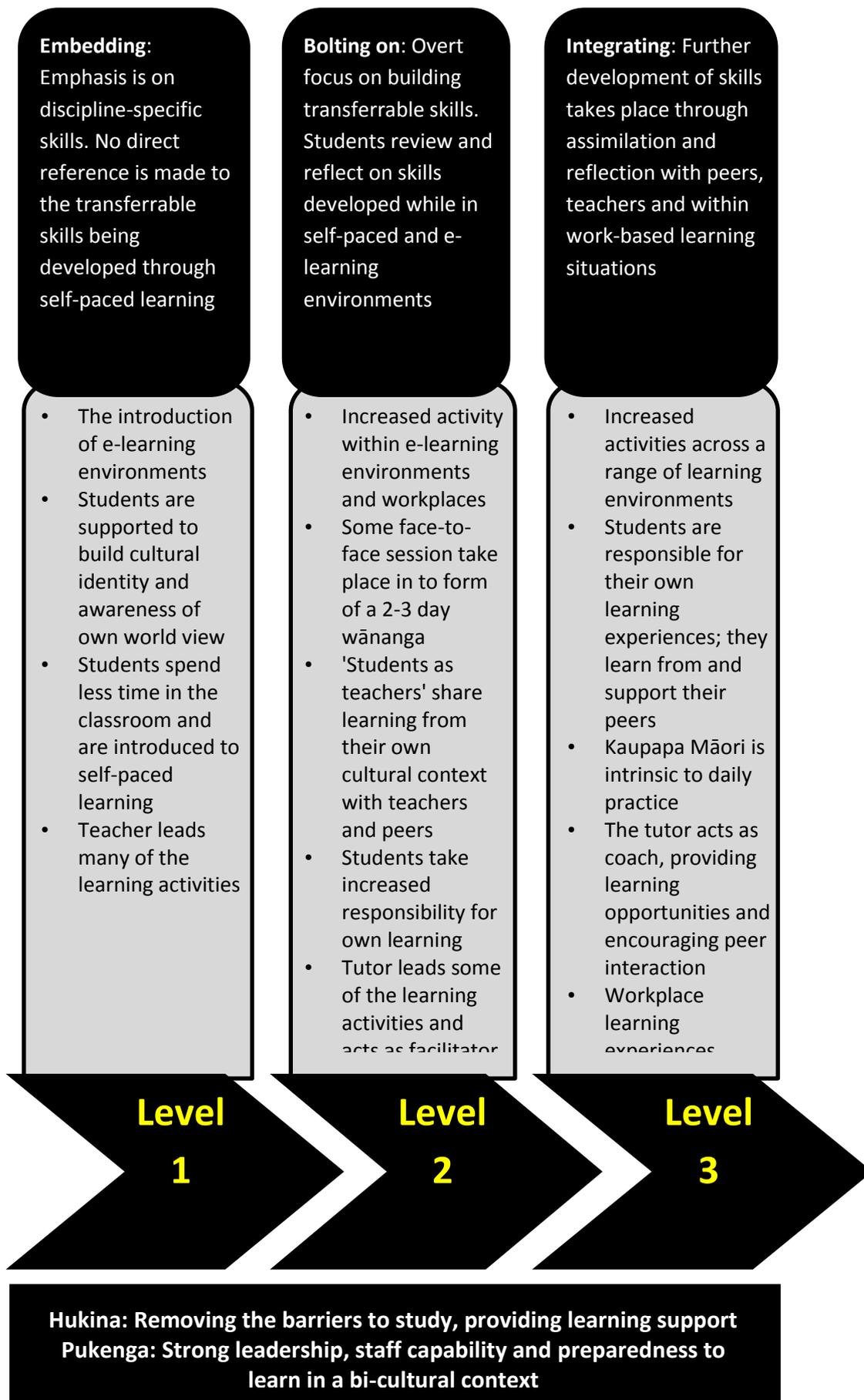


Figure 4: Student Capability Model

Pilot Programme Detail

Each week, the participants were given tasks to complete in order to develop their own sandpit sites, and tasks to complete in the shared site. Screen capture video files containing instructions for each task were provided to assist participants. See an example below:

Week One

During this first week we complete three main tasks:

- Edit your profile (on this main site)
- Participate in the Introduction Discussion (click on the 'Introduction Discussion' link in the 'Welcome block' to begin)
- Participate in the 'Welcome block' discussion (click on the link below), log on to your sandpit sites and set up the 'Welcome Page' - This will be the site that you can develop to use with your students

Instructions on how to edit your profile and create a welcome message on your sandpit site are in the movies below (click the links to view)



Welcome Block Forum



[How to create a welcome message file](#)



How to create a welcome message in Moodle Resource



[How to edit your profile](#)



How to edit our profile in Moodle Resource

E-technology in practice

This movie (follow the link below), captures the various modes of delivery used in Wintec's Certificate in Hairdressing Level 4. The programme was developed 5 years ago and is now facilitated by Cheryl Belcher. We have recently included the use of i-pod touch devices. <http://youtu.be/3Dq5Q00G8aM>

For each task, an example was provided and/or the practice was modelled by the facilitator on the shared site.

Weeks 2 and 3

Weeks 2 and 3 followed a similar format to week 1. The second week involved participants linking to a You Tube video or streaming the video through a window in their sandpit site and setting up an online self-reflective journal for students. Screen capture video instructions showing participants how to complete each task were provided. A discussion forum was open on the shared site for participants to discuss their progress.

Week 3 involved participants setting up a discussion forum on their sandpit sites, with questions for their students that related to the video that had been added during week 2. Again, video instructions

were provided and synchronous chat sessions were held on two occasions over the week to discuss progress.

Week 4

The face-to-face day occurred during week four of the programme. The 30 participants from around the North Island travelled to Hamilton to spend the day with the course facilitator in a computer lab. Here, questions were answered relating to the work that had been completed so far and some of the more involved tasks, such as setting up a quiz, were demonstrated and worked through. The session was facilitated by an experienced hairdressing tutor, and participants from organisations that are not currently using an LMS were given the opportunity to talk to e-technology experts about the options that exist. Participant feedback indicates that this day was a key factor for many in making sense of the processes discussed and appreciating the benefits of e-technology for students.

Week Four - Face to Face

This session will be held from 10 am - 5 pm Tuesday November 30

Room A2.10 Wintec, City Campus (See link to map below)

During this session we will

- Meet each other in person!
- Discuss technology in teaching - what are the possibilities, what do you want to achieve?
- Plan your programme/resource and catch up on anything you need to
- Set up a quiz on your sandpit site
- Choose at least one other activity to set up
- Discuss how you can introduce e-learning to your organisation (if you do not already have access)
- Join the our new community of practice on Ako Aotearoa's site

Because of the tight time frame on the 30th, it would be very helpful if you could prepare 6-8 multi choice questions on the topic that you are developing in your course. Each question will need at least 3 possible answers with it. It would be best if you could bring this on a USB drive or a disk. That way you can just copy and paste the questions and answers into the quiz and will be able to focus on the process rather than the development of the questions.

Weeks 5 and 6: Evaluation

An initial Participant Evaluation Questionnaire was completed at the end of the face-to face day (week four). Seventeen of the group completed the evaluations and those who did not do so were contacted via email and by phone over the following two weeks. Weeks 5 and 6 of the programme were aimed at participants completing the initial portions of their sandpit sites and peer-assessing each other's work.

Week Five

It was great to meet you all in person last week; I enjoyed your enthusiasm and the progress you made on your sandpit sites. This week we will continue the momentum and begin to implement plans we developed last week by further developing your sandpit sites. Next week you will peer review the sites - see peer review questions below:

- Answer the question in your journal: How much more confident am I feeling about facilitating e-learning after the face-to-face day?
- You can participate in the discussion if you want to keep in contact, chat to your peers or ask for help.

 [Peer Review Questions Word document](#)

 [How's it going? Forum](#)

 [Questions for the sandpit developer to answer \(peer reviewee\) Forum](#)

 [Questions for the Peer Reviewer to Answer Forum](#)

As with all tasks that were scheduled to be completed after course completion, there was limited uptake in the Peer Review task (see Week 6 example) due to the workloads of the participants. However, those who did participate were able to gain feedback and share ideas with their partners.

Week 6 - Peer Review Week

Welcome to week six and well done! Now it's time to review your partner's resource, so this week we will:

- Provide peer feedback: Answer the questions in your peer's sandpit that should have been set up last week. Make sure that the feedback forums are set up in your own site. [Please contact Colin or myself if you missed how to enrol your partner on your site.](#)
- Make your journal entry: What will I change as a result of the feedback from my partner?
- Ensure that you have joined the community on the Ako Aotearoa site.

I have enjoyed working with you all and hope to continue these discussions with the community of practice. Remember, this is where you can find support, share ideas and collaboratively develop resources. I look forward to continuing this journey with you.

Julia

Recommendations

The key recommendations from the Theory to Practice project are:

- Staff development opportunities for trades and vocational tutors should be set up for discipline-specific groups (see Figure 3: Discipline Specific e-Training Model, p. 14). This model is designed to increase tutor capability to help students integrate theory with practice, improve teaching practice, develop usable resources and increase learner engagement. It would be useful to apply the Discipline Specific e-Training Model to a trades discipline other than hairdressing, and research the results.
- Staff should be allowed time-release or use professional development leave to participate in on-going communities of practice. It would be useful to research this as a component of the on-going Discipline Specific Training inquiry.
- Organisations must provide robust technologies and on-going support if e-learning is going to be integrated into blended learning programmes. This could be an additional component of the Discipline Specific Training inquiry.
- Student capability must be considered as part of an over-arching blended learning strategy when integrating e-learning practices (see Figure 2: Four Key Considerations, p. 12). A staged approach to developing independent learning skills and incorporated kaupapa Māori principles is recommended (see Figure 4: Student Capability Model, p. 21). During the pilot programme, there was an absence of Māori pedagogy in the resources and activities that the participants developed. It would be useful to develop and research programmes that incorporate the Student Capability Model, to develop transferrable learning skills and include Māori pedagogy in the learning environment.
- Students of the Theory to Practice participants who have set up and facilitated e-learning components within their programmes up to a year after the completion of the pilot programme should be surveyed to ascertain their degree of achievement in terms of learning outcomes.

Summary

What has emerged from this project is that although discipline specific e-learning training will support tutors in facilitating meaningful e-learning environments for their students, there are additional key considerations (see Figure 2: Four Key Considerations, p. 12) that organisations need to recognise and implement to fully support tutors; these are organisational commitment (development time for tutors and resourcing), on-going technical resourcing and support, a focus on building student capability and discipline specific development.

To make the Theory to Practice training model work for a specific discipline, it is essential to select a teacher from the same field of practice who has facilitated learning using e-technology. This teacher would facilitate the training using the Discipline Specific e-Training Model (see Figure 3, p. 14) for teachers of the same discipline across the region or country. It would be of great value to see this model in use. Teaching staff working together across organisations to develop e-learning components have the potential to enrich learning environments for students, save development time for tutors and provide numerous positive outcomes for organisations.

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