

Processes for Team Development of Teaching Material

Philippa Buckley and Fiona Gilmore

School of Literacies and Arts in Education University of Canterbury

This paper draws on the experiences of teacher educators new to the creation of blended learning, and presents their perspectives as they reflected on the process of creating, implementing, and reviewing a newly developed online course. This discussion will be of interest to teachers charged with leading a group of colleagues in a collaborative online course development process.

Rationale and Relevance

For a team of teacher educators new to the creation of blended learning material the key tenet of the development journey had been to create a course which demanded active student engagement in and reflection on specific content. Consequently, this article is underpinned by the authors' binary roles as both teachers and learners within a course development process. This dual perspective resonates with the Maori concept of ako. While ako refers to effective teaching (Ministry of Education, 2008), at the heart of effective teaching is learning. Hunt, McMurray and Needham (2011) observed and experienced the intertwining of teaching and learning in their roles as teacher educators, and they highlight the significance of ako within the New Zealand context.

Literature review

Development of collaborative learning communities

Garrison and Vaughan (2008) argue that transformative change can only be sustained when completed systematically within a learning community of inquiry which has institutional directorship and support. While Groundwater-Smith and Mockler (2009) agree, they argue that such communities should not be institutionally driven or monitored, but rather as in this journey, be self-organised, social and relate to the professional learning issues that matter most to its participants. Stoll and Louis (2007) identified the five characteristics of effective learning communities as shared values and vision, collective responsibility, reflective professional inquiry, collaboration, and promotion of group as well as individual learning. Several of these characteristics were evident within this project where all team members had a clear understanding of their shared and individual responsibilities, and their need to approach the project in a systematic and explicit way irrespective of the knowledge or skills (content or technological) which they brought to the group and process. Without this understanding each member entering the group could assume that their understandings and belief system would form the basis for this new working relationship (Cowie & Nichols, 2010). In this study the team culture was characterised by recognition that all members had a valuable contribution to make, irrespective of the technical knowledge and skill level which they brought to the process.

Definition and purposes of blended learning

Traditionally embedded within the roots of the 'technological history of distance education', blended learning is becoming a preferred way of teaching in a range of educational settings (Ernst, 2008). A number of terms being utilised to describe the current trend to 'blend' the traditional classroom environment with aspects of modern online delivery, include hybrid, blended, mixed mode and flexible. While Snart (2010) argued that these can be used interchangeably, Mackey (2010) concluded that the term 'blended' is not just a technological definition but can also be used to describe the way that the learner 'negotiate[s] their own experiences and social contexts of learning' (p .

179). Blended learning can be a positive experience for both students and teaching staff as it provides opportunities to develop more individualised teaching approaches; utilise social tools to promote collaboration, reflection and higher order thinking; and establish collaborative professional communities and partnerships (Ernst, 2008; Mackey, 2010; Simplicio, 2004;). While blended learning is becoming increasingly popular, more research is needed so informed decisions and debate can continue within the 21st century context (Amrein-Beardsley, Foulger & Toth, 2007; Snart, 2010). This paper explores how a group collaborated to grapple with the definition and implementation of this teaching approach within a diverse range of teaching philosophies and teaching styles.

Challenges of implementation

Teacher motivation can be central to the success of online courses. Many e-learning initiatives are instigated by teaching staff keen to innovate and improve their teaching, and these are likely to be embraced and sustained when enthusiasm for, and recognition of the benefits of blended learning are shared by the wider school community (Davis & Fill, 2007). Conversely, a lack of motivation from staff can lead to minimal engagement and participation in the online community of their course, ultimately leading to student disengagement (Connolly, Jones & Jones, 2007). For teachers this process often involves practical technical challenges which necessitates ongoing specialist support, i.e. the course designer or technical specialist (Amrein-Beardsley, Foulger & Toth, 2007; Connolly, Jones & Jones, 2007; Davis & Fill, 2007; Fitzgibbon & Jones, 2004; Parker, Robinson & Hannafin, 2008).

However, as stressed by Stoll and Louis (2007), initially time needs to be devoted to establishing a clear vision and acknowledgement that all members have something important to contribute to the process. This requires careful leadership and systematic management. In this study this was achieved by strong course coordination that actively adopted a collaborative model, which brought together a team across two distinct course subject areas. Brown and Jackson (2001) argued that effective leadership is about stimulating both discussion and debate. Effective leadership is not about seeking compliance from team members, rather it allows for dialogue surrounding contentious and therefore potentially critical points. However the literature also signals that tension

arises when there is an added pressure of tight time and economic constraints which can leave staff feeling powerless and overwhelmed. These sentiments were evident and expressed within this team and other faculty. Staff designing blended learning environments benefit from taking time to reflect on and evaluate the pedagogical models underpinning their teaching within a setting which has a strong vision and supportive systems for both teachers and students alike (Fitzgibbon & Jones, 2004; Snart, 2010).

Methodology

This study was developed using Cochran-Smith and Lytle's conceptual framework (2009) which incorporates many features underpinning a range of action research methodologies. These include the practitioner as the researcher, the professional context as the site for the inquiry, community and collaboration, new conceptions of validity and generalisability, systematicity of collection of data and analysis, and the public critique of new knowledge (Cochran-Smith & Lytle, 2009, p. 39). This study, like most forms of participatory research, incorporated a reflective cycle of introducing a change [see Implementation Framework] monitoring the impact [in the form of interviews], utilising the systematic gathering of data, analysing and interpreting the data and then making the knowledge public (Paugh & Robinson, 2009; Somekh, 2009).

The New Zealand Curriculum promotes that all teachers should be actively involved in the systematic review of their teaching practises through teacher inquiry. Teacher self-review as advocated by Timperley, Wilson, Barrar and Fung (2007) also underpins this study.

This research evolved out of reflection and the awareness that ongoing systematic review was a key tenet of effective course design. This led to the formulation of the following research questions:

- How do teacher educators develop an effective blended teaching course?

- How does this challenge their conceptions of effective teaching at this level?

This research was conducted by two team members (including the course coordinator), and data gathering (staff interviews) began after the first round of course implementation.

Context and participants

The course was an amalgamation of two existing primary undergraduate literacy courses and a new component which focussed on learning another language. It was delivered to pre-service trainees completing their second year of a Bachelor of Teaching and Learning (BTchLn) three-year degree. The course website had been developed for use by dual cohorts (distance and on campus). For the distance cohort of approximately 70 students, the site contained all key content including teaching sessions, practical workshops, and reading materials. Discussion forums provided interaction opportunities, and supported course content by promoting structured, purposeful and rigorous dialogue. On campus students (approximately 150) had access to the website in addition to face-to-face lectures and workshops. On campus students were expected to access all online materials and resources, and have ongoing engagement with the course website through various discussion forums.

Five of the six research participants directly taught into the course, and the sixth, an educational designer, had assisted in the development and organisation of the resources and materials for the online delivery.

Instruments and analysis

Semi-structured individual interviews were utilised as this structure allowed for some pre-determined questions to be asked and useful prompts to be utilised if necessary. These were conducted after the course had been implemented and questions included perceptions of blended learning; successful elements; barriers and enablers; and the professional and personal challenges experienced within this process. Each interview lasted for 35 minutes and was audio-recorded and fully transcribed. A 'constant comparative analysis' approach as developed by LeCompte and Preissle (1993) was

used to identify emerging themes which involved constant rereading, comparing and contrasting to literature and the establishment of linkages and relationships. As with all research completed in the College of Education, ethical approval was granted by the Educational Research Human Ethics Committee (ERHEC). Participation was voluntary and the data analysis took place after all student assessments had been completed.

Implementation framework

The framework in Table 1 highlights the specific strategies used by the team while the course was being developed.

<p>Team Leadership</p> <p>Planning framework identifying individual responsibilities</p> <p>Development of timeline</p> <p>Liaising with management</p> <p>Overview of project</p>	<p>Team Meetings</p> <p>Scheduled regularly</p> <p>Clear agenda – scaffolding discussion</p> <p>Concluded with summary of decisions made and formalisation of next steps</p> <p>Follow up e-communication</p>
<p>Team Questions</p> <p><i>Framing and underpinning these discussions were the following questions:</i></p> <p>What content is best taught face-to-face or online? Why?</p> <p>How can we engage the students?</p> <p>What prior knowledge or skills do we need to have in order to develop this?</p> <p>What prior knowledge or skills do the students need to have?</p> <p>What assumptions are we making about our learners?</p> <p>How is this different or similar to what we were previously doing?</p>	<p>Educational Design Support</p> <p>(Previously a NZ registered classroom teacher) Provided technical support</p> <p>Attended all team meetings</p> <p>Guided [and modelled] using a co-constructivist approach</p> <p>Worked individually with team members upon request</p>
<p>Communication</p>	<p>Transparency</p>

<p>Team culture which valued all contributions.</p> <p>Honest communication</p>	<p>All online teaching is visible.</p> <p>All teachers had access to each other's work in the virtual classroom.</p> <p>Shared language around content decisions</p>
---	--

Table 1. The framework for identifying the course development process

Findings

Collaborative opportunities

The course development journey provided multiple opportunities for collaboration. Initially these centred on developing and maintaining technical capacity, but over time the emphasis widened to encompass a pedagogical focus. Initially collaborative partnerships were established between each of the academic team members and the educational designer. The academic team brought their content area knowledge to the project and the educational designer worked with each team member to introduce and over time develop technical capacity. Jo's response typifies the feeling of all those interviewed: 'She [e-learning educational designer] is never going to get away. [Individual] Sessions with her were just fantastic. I learnt so much from her.'

Collaboration also occurred at a team level as the five academic staff members worked to develop a coherent course learning sequence moving beyond their traditional autonomous and individual style of content preparation. This shift resulted in changing dynamics and added complexity to the preparation process as highlighted by the educational designer Susan:

It was just a huge team on one site. And you know what they say about too many cooks. But you [course co-ordinator] managed not to burn anything, which was really good. And that was the biggest challenge because lots of

people wanted to do things differently and you had lots of different teaching styles.

Strong course co-ordination utilising pre-planned templates enabled this process to develop quickly.

A professional learning community began evolving as spirals of collaborative activity occurred. Philippa discusses how technical understandings of the learning management system (LMS) using Learn (the university's implementation of Moodle) were developed and shared across the team:

Susan was building my [technical] capability, and at times that was stressful, frustrating, and downright annoying because she would do some things for me but wouldn't do others. And gradually I picked up and learnt more ... then I got into a position where I was helping other people in the team, so it was a spiral.

This emphasised that the team members were also beginning to help with each other and that they were beginning to accept responsibility by building capacity amongst themselves.

Challenges

This journey fits a common pattern in New Zealand education where innovations often occur within low budget, time-limited contexts. In this development the site needed to be available to students within a tightly mandated timeframe including 20 hours release allocated to one academic staff member, but all other development occurred within the parameters of the normal teaching role. This was made increasingly complex as the educational designer was responsible for overseeing the development of several other courses, all with academics who were unfamiliar with LMS and all needing to be completed within the same timeframe. This resource constraint was repeatedly highlighted by all teaching staff within the interviews. Fiona describes the burden involved in developing online sessions while simultaneously developing personal technical competencies: 'I just feel that my technical abilities are not matched, and I feel that it consumed so much of my time and the workload doesn't reflect that. I just don't

see how I can sustain that.’ She describes ‘and I found that really frustrating, to the point where I was in tears.’ Philippa echoes this ‘I know the first one [teaching session] took me two weeks to write.’

The need to address this challenge stretched beyond the course development process. The building of technical capacity is time consuming. Referring to the disproportionate amount of time needed to focus on this part of her teaching role Philippa suggests a wider impact. ‘There have been other consequences because I wasn’t able to direct my attention across all parts of my job.’ Pressures also extend beyond the individual and encompass the internal infrastructure as highlighted by Jo, who found access to technical support problematic ‘I had a fantastic video I really wanted to use on the site, but they were just frantically busy at that time of the year.’ Therefore some decisions about the utilisation of instructional tools were made based on the staff knowledge or personal capabilities.

Benefits

The systematic management of the development project gave the team a framework to work within. The team focus and sense of expectation contributed to the meeting of tight timelines. The supportive culture meant that technical help was accessible as Jilaine describes ‘The online material once I had written it up I was stuck. I needed you [Fiona]. I needed Philippa, because the only thing I can put up on Learn [LMS] with any ease is post a new message.’

The desire of teaching staff to facilitate student learning plus their growing awareness of the need to plan online experiences that maximised ongoing student motivation and engagement emerge as key considerations within the data. The faculty team remained mindful that the experience of their students was central to the success regardless of delivery mode. Jilaine elaborates ‘[We] need to get students to the point where they are clear in how they deliver [learning sequences and teaching points] to kids.

Pedagogically focused discussion stemmed from the teachers’ growing understanding of the LMS and the tools available. Philippa notes, ‘I think that there is more choice in an online environment for student participation.’ She reflects on some online content the team had initially developed ‘I think there was a lot of passive activity, but the next step

for us is to turn that into some online dialogue.’ Similarly Fiona considers the focus for future delivery ‘getting the students to interact with the readings. I would like to see that and bringing reality to the [virtual] classroom’.

Pedagogically strengthening the online material provided another opportunity for contextually focused professional development. Jo notes her decision to use the quiz tool within the LMS ‘It was perfect for me. I was entirely motivated ... [but] I’m not sure I could do another quiz this morning without quite a bit of revision.’

The interviews highlight how lecturers who had created interactive online sessions had a clear sense of the benefits of increased student responsibility through the use of a blended teaching approach. These lecturers communicated confidence in the learning experiences they had created and the responsibility of learners to engage with these in a timely manner. However they stressed that online learning opportunities (delivered in a blended model to face to face students) were selected based on the suitability of content. Some content clearly lent itself to this approach, whereas other content was more coherently delivered in a face-to-face lecturer-led context and further adaptations were required for the flexible learning option.

Guidelines for classroom practitioners

This course development journey has been professionally valuable. As a team, we have made the transition into blended learning and sought comfort from systems and structure during the difficult phases of this process. Testimony to the overall success of the collaborative approach we adopted was acknowledgment by our institution in the form of a team teaching award. We acknowledge that we work in an institution that is relatively mature in its infrastructure and support for blended online learning and teaching, and that institutional immaturity can provoke major additional challenges for teachers who are the first on this journey in their programme or organisation (Parkes, Zaka & Davis, 2011). There are also likely to be additional challenges for a teacher who is both new to a team and to blended learning as described by Correia and Davis (2008).

Drawing on our experiences in moving to a digital based course delivery and the literature we have read and applied, we have developed the following key points for consideration. These are intended to act as guidelines for teams at the beginning stages of the transition to a digital approach, and containing members with diverse technical expertise and attitudes to blended pedagogy. As teacher educators involved in both initial teacher education and ongoing professional learning development communities we believe that these guidelines are equally appropriate for teachers in all sectors of education, including teachers in schools that are only just beginning to consider networked learning (Ministry of Education, 2011). This collaborative approach is underpinned by the principle of *ako* (Ministry of Education, 2008), and is therefore a people-based process that fuses what it means to be both a teacher and a learner within one environment. The following seven points aim to guide such collaborators and those that lead their departments and programmes through the complexity associated with moving into blended learning and teaching. This team recommends that:

1. Diverse technical and pedagogical understandings within a team be embraced for positive outcomes. It is important that course leaders responsible for guiding and supporting those with emerging technical understanding have a shared pedagogical framework with the remainder of the team (in this case the educational designer had trained as a classroom practitioner).
2. Development plans be underpinned by institutional support. Furthermore, that course leaders be supported by senior leaders in the organisation(s) involved and that they have access to adequate resourcing to support the development process. Teacher release time should be carefully managed to include working alongside less confident users of the technologies to encourage and build technical capacity.
3. The leadership approach is underpinned by transparency. Regular team meetings should be used to establish clear systems and pathways for progress. Strong project management will include the ability to outline expectations for team members, and develop a supportive and forward-looking team culture.

4. The development process is managed with sensitivity to team members' diverse technical and pedagogical backgrounds. Awareness of fears and anxieties relating to technical capacity and pedagogical change is paramount, and the leader is aware of the need to work with team members to reduce any resulting 'road blocks' to progress.
5. The beginning of the development process focuses on the establishment of a joint set of goals with clear expectations and individual responsibility is accepted for key milestones. Meeting agendas and follow up e-communications highlight key tasks and progress made. Resources are made accessible in a timely manner to allow for meeting realistic timeframes.
6. Course content is developed with consideration to diverse learners' perspectives. Technological decisions are underpinned by strong pedagogical reasoning appropriate to the course content. Online tool use needs to be underpinned by relevant content-based pedagogy.
7. A longitudinal commitment underpins this professional journey. The development process needs to continue into several cycles of implementation.

Acknowledgements

The authors would like to acknowledge the team that developed, and later implemented, the course on which this article is based. Special thanks to Dr Bridget Somekh, University of Canterbury, for her guidance and support.

References

- Amrein-Beardsley, A., Foulger, T. S., & Toth, M. (2007). Examining the development of a hybrid degree program: Using student and instructor data to inform decision-making. *Journal of Research on Technology in Education*, 39(4), 331–357.

- Brown, D. G. & Jackson, S. (2001). Creating a context for consensus. In Barone, C. & Hagner, P. R. (Eds.), *Technology-enhanced teaching and learning. Leading and supporting the transformation on your campus*. San Francisco: Jossey-Bass.
- Cochran-Smith, M., & Lytle, S. L. (2009) *Inquiry as stance. Practitioner research for the next generation*. NY, USA: Teachers College Press.
- Connolly, M., Jones, C., & Jones, N. (2007). New approaches, new vision: Capturing teacher experiences in a brave new online world. *Open Learning*, 22(1), 43–56.
- Correia, A-P. & Davis, N. (2008) Intersecting communities of practice in distance education: The program team and the online course community. *Distance Education*, 29(3), 289–306. <http://dx.doi.org/10.1080/01587910802395813>
- Cowie, P. & Nichols, M. (2010). The clash of cultures: Hybrid learning course development as management of tension. *Journal of Distance Education*, 24 (1), 77–90.
- Davis, H. C & Fill, K. (2007). Embedding blended learning in a university's teaching culture: Experiences and reflections. *British Journal of Educational Technology*, 38(5), 817–828.
- Ernst, J., V. (2008). A comparison of traditional and hybrid online instructional presentation in communication technology, *Journal of Technology Education*, 19(2), 40–49.
- Fitzgibbon, K., & Jones, N. (2004). Jumping the hurdles: Challenges of staff development delivered in a blended learning environment. *Journal of Educational Media*, 29(1), 25–35.
- Garrison, D. R. & Vaughn, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. San Francisco, USA: Jossey-Bass.
- Groundwater-Smith, S. & Mockler, N. (2009). Teacher professional learning in an age of compliance. *Mind the gap*. Australia: Springer.

- Hunt, A. M., McMurray, L., & Needham, V., (2011). Evolving effective e-learning practices with research from a regional campus. In Mackey J., Dabner, N., Davis, N., & Johnson J. (Eds.) (2011) *Proceedings of the ULearn 2011 Research Stream, 18–21 October 2011. Rotorua*. Christchurch: University of Canterbury. School of Literacies and Arts in Education.
- LeCompte, M. & Preissle, J. (1993) (2nd Ed.) *Ethnography and Qualitative Design in Educational Research*. UK: Academic Press Inc.
- Mackey, J. (2010). Virtual learning and real communities: Online professional development for teachers. In E. Stacey & P. Gerbic (Eds.), *Effective blended learning practices: Evidence-based perspectives in ICT-facilitated education* (pp. 163–181). Hershey, PA: Information Science Reference
- Ministry of Education, (2008). *Ka hikitia: Managing for success – the Ministry of Education Maori Education Strategy 2008–2010*. Wellington: Ministry of Education.
- Ministry of Education, (2011). *Learning Communities Online*. Retrieved 5 November 2011 from <http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/Initiatives/LearningCommunitiesOnline.aspx>
- Parker, D., Robinson, L., & Hannafin, R. (2008). “Blending” technology and effective pedagogy in a core course for preservice teachers. *Journal of Computing in Teacher Education*, 44(2), 49–53.
- Parkes, S., Zaka, P. & Davis, N.E. (2011) The first blended or hybrid online course in a New Zealand Secondary School: A case study. *Computers in New Zealand Schools*, 23(1).
- Puagh, P. & Robinson, E. (2009). Participatory research as self study. In C. A. Lasonde; S. Galman & C. Kosnik (Eds), *Self study research methodologies for teacher educations* (pp.87–106). Rotterdam, The Netherlands: Sense Publishers.

- Simplicio, J. (2004). Today's teachers struggle to educate a generation of students unlike any that has ever been seen before. *Journal of Instructional Psychology*, 31 (1), 71–74.
- Somekh, B. (2009). *Agency through action research*. Prestige Lecture presented at the University of Canterbury College of Education, Christchurch, April.
- Snart, J. A. (2010) *Hybrid Learning The perils and promise of blending online and face-to-face instruction in higher education*. Santa Barbara, California: Praeger.
- Stoll, L. & Louis, K. (2007). Professional learning communities: elaborating new approaches. In L. Stoll and K. S. Louis, (Eds.), *Professional learning communities: Divergence, depth, and dilemmas*. (pp. 1–14) Berkshire, England: Open University Press.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). Teacher Professional Learning and Development. Best Evidence Synthesis Iteration (BES). Wellington, NZ: Ministry of Education. Retrieved October 20, 2011 from <http://www.educationcounts.govt.nz/publications/series/2515/15341>

This work is licenced under the Creative Commons Attribution-Non-Commercial-No Derivative Works 3.0 New Zealand License. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/3.0/nz/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California 94105, USA.