



The blending of blended learning: An experiential approach to academic staff development

Debra Bath & John Bourke

Griffith Institute for Higher Education, Griffith University, Brisbane, Australia

Along with the increasing emphasis placed on blended learning approaches in higher education, has come a need to engage and support staff in developing knowledge and skills for designing and managing blended learning curricula. This paper describes one strategy for such support: an elective course within an existing Graduate Certificate in Higher Education program. Staff have the opportunity to complete this course as part of a formal program of study or as a one-off professional development opportunity. The course specifically aims to support staff in developing an understanding of the philosophical and pedagogical underpinnings of blended learning design, as well as in gaining skills in designing curricula from a blended learning perspective using information and communication technologies (ICTs) for teaching, learning and assessment purposes. Itself designed in blended learning mode, this course attempts to embody good practice in blended learning, and here we present an initial evaluation of the course from this perspective.

Keywords: blended learning, academic staff development, higher education, evaluation

Introduction

Blended learning is fast becoming embedded as the primary method of course delivery in most universities, both in Australia and internationally. Whilst there are likely to be varying drivers for this development across institutions, many would espouse the aim of engaging students and enriching the quality of student learning.

Despite the fact that the term ‘blended learning’ is now commonplace in higher education, there are differences in the interpretation and enactment of the concept. According to Wild (2007, p.1) at its most basic, blended learning is “...a blend or mix of the approaches that can be used to design a learning experience”. So, even though essentially “...Learning is always blended” (p.1) we typically take this concept to mean the use of technologies in learning through the integration of online and face-to-face modes. Along with the adoption of blended learning approaches has been the need for teachers to make more explicit their intentions for learning and teaching, and curriculum design is now a more considered process and outcome than perhaps ever before. When designing a course, teachers now have to contemplate the notions of place, proximity and technology, and make decisions about what is best for learning within existing possibilities and constraints. For example, what is the value of bringing students together in a single place and time? How is it different when students are learning face-to-face vs. online/distance, or in real time vs. asynchronously? What resources do I, and my students, have access to?

Therefore, the move towards blended learning approaches has placed a great challenge on many teachers in higher education who are faced with a need, indeed an imperative for some, to acquire knowledge and

skills in designing and managing blended learning curricula. This need is supported in varying ways within institutions, including formal academic staff development initiatives, one of which will be addressed in the present paper.

Context and overview

From 2008, blended learning has been an institutional strategic priority for our University, having set the goal to "...systematically embed blended learning approaches in the teaching and learning activities of all programs" and "...nurture and extend staff capabilities in the applications of blended learning" (Griffith University, 2007). As part of the institutional strategy for blended learning, an elective course was developed as part of the existing Graduate Certificate in Higher Education program. This program has been running for many years, and is completed by academic and allied staff from the University, as well as staff from other post-secondary education institutions. The new elective course is open to those completing the Graduate Certificate program, as well as any staff who wished to complete the course as an independent study option.

The blended learning elective course aims to support staff in developing an understanding of the philosophical and pedagogical underpinnings of blended learning design, as well as in gaining skills in designing curricula from a blended learning perspective, and in using information and communication technologies (ICTs) to facilitate communication, collaboration (interaction) among students, content delivery and assessment. Developing practical knowledge and skills in blended learning design and delivery is obviously an important aspect of this course. However, being able to identify and apply relevant theoretical concepts, and provide a rationale for what one does, is also emphasised and supported as an important aspect of professional practice.

This course was designed specifically to allow participants to experience blended learning first-hand, and thus was not just about blended learning, but was conducted in blended learning mode. This meant that we not only facilitated participants learning about blended learning, but we modeled a blended learning approach. Indeed, we needed to model best practice and provide an evidence-based approach to our own work. To this end, we worked from three key theoretical frameworks; each is briefly discussed below.

Technological pedagogical content knowledge (TPCK)

TPCK (Mishra & Koehler, 2006) is a conceptual framework for the use of technology in education, which builds on Shulman's (1986) notion of a teacher's 'pedagogical content knowledge' which reflects knowing what teaching approaches best suit the content, the representation and formulation of concepts, pedagogical techniques, knowledge of what makes concepts difficult or easy to learn, knowledge of students' prior knowledge, and theories of epistemology.

Mishra and Koehler (p. 1017) argue that 'thoughtful pedagogical uses of technology require the development of a complex, situated form of knowledge' that goes beyond all three components (content, pedagogy, and technology) and differs from the knowledge held by a disciplinary (content) or technology expert, and also from the general pedagogical knowledge shared by teachers across disciplines. TPCK is central to good teaching with technology, and it combines content knowledge, pedagogical knowledge and technological knowledge to form knowledge of how to use technology to best facilitate learning in a particular discipline, for particular content, contexts and cohorts. TPCK guided the design of both content and activity in the course, and placed an emphasis on facilitating participants' learning about technology within their personal teaching contexts.

Community of Inquiry

The Community of Inquiry (COI) framework for blended learning, developed by Garrison and Vaughan (2007), is founded on the belief that a framework helps to avoid separation of theory and practice and "...provides a means to shape practice...to reflect upon and make sense of outcomes..." (p. 13). They argue that the ideal 'educational transaction' involves a process of collaboration and construction with inquiry at its core, where such social interaction helps students to share knowledge, develop and evaluate meaning, and hence enrich their understanding.

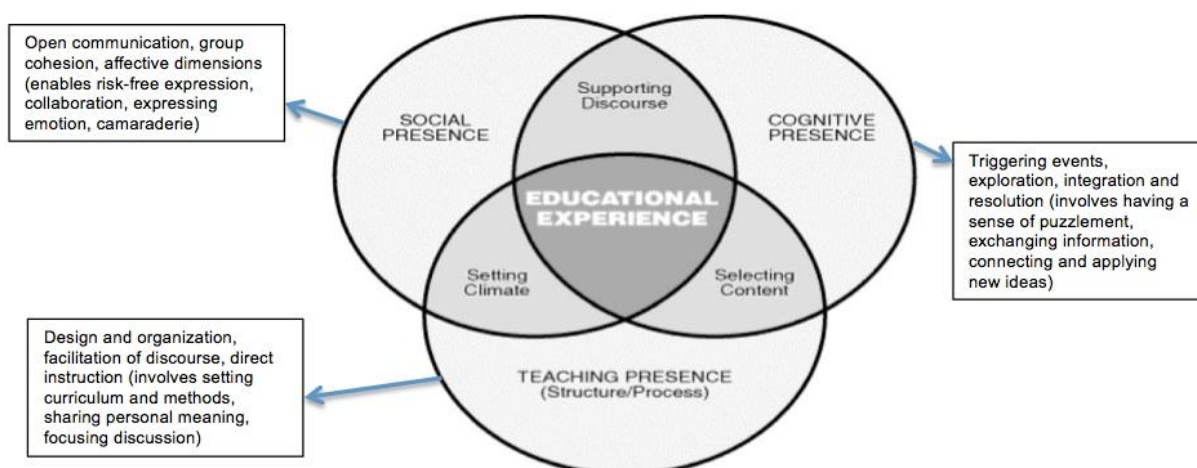


Figure 1. The Community of Inquiry Framework (Garrison & Vaughan, 2007, p. 17-18)

Their framework involves three key components; (1) *Social Presence* - the ability of participants to project themselves socially and emotionally in the community, through trusting and purposeful communication and interpersonal relationships, (2) *Cognitive Presence* - the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse, and (3) *Teaching Presence* - the design, facilitation and direction of cognitive and social processes to create personally meaningful and educationally worthwhile learning. Research has shown (Garrison & Vaughan, 2007) that teaching presence is a significant determinate of student satisfaction, perceived learning, and sense of community. The COI framework guided the holistic design of the course, and then the ongoing delivery and management of the course experience.

Experiential learning

In addition to the TPCK and COI frameworks, the design of the course was underpinned by an experiential learning approach. Experiential learning involves learning from experience, from a direct encounter with the phenomena being studied. Kolb and Fry (1976) proposed that learning is continuous and cyclical, where it is formed and re-formed through the individual's experience; what is essential in the process is reflection and reconceptualisation in order for new experiences to be integrated with prior knowledge and for knowledge to be built upon. In their model, learning begins with *concrete experience* (doing, having an experience), which leads to *reflective observation* (reviewing, reflecting on the experience), and *abstract conceptualization* (drawing conclusions, learning from the experience) in order to move on to *active experimentation* (planning, then trying out what one has learned). This model of learning was perhaps the most fundamental to the course, as it underpinned both TPCK and COI frameworks and provided both teachers and participants in the course a simple yet effective purpose and guide for learning.

Course structure and activities

The course is structured around three face-to-face workshops (o-week, mid-semester break, study week), which were designed to: support the creation and maintenance of a sense of connection and community amongst the group; facilitate learning of key literature and some technical skills; and debrief online activities, share and discuss experiences. During the semester, between workshops, the course is segmented into four learning modules, which include set readings and activities made available online, and supported by three online tutorial sessions using Wimba Virtual Classroom. These include: (1) Designing for student activity and collaboration (small group wiki task, discussion forum x 2); (2) Assessment and blended learning (develop marking rubric for wiki task, self and peer assessment of wiki task); (3) Building a learning community (virtual tour of online course); and (4) Evaluating blended learning (develop evaluation tool).

The formal assessment tasks are mostly embedded within the learning and teaching activities throughout the semester, or draw heavily on these activities. For example, to support students from an experiential learning approach, they are required to complete a reflective journal (using an individual blog tool). The

small group wiki task is also a set assessment task, and participants are required to utilise their discussion forum posts in another assessment task. Drawing together their learning throughout the course, participants are finally required to design a sequence of activities that are focused on a particular learning objective (chosen by the individual, and can be hypothetical or a real learning objective from his/her own teaching experience). To facilitate the design process, we use the LAMS (Learning Activity Management System) tool, which provides a user-friendly authoring (i.e., designing) environment for creating sequences of learning activities that can be shared with others. Participants submit their LAMS design along with a report detailing the relevant pedagogical approaches, their design rationale, and an implementation and evaluation plan.

Evaluation

In addition to the University mandated student evaluation of course and teaching process, we implemented an evaluation based on the TPCK and COI frameworks that underpinned the design of this course. These evaluation components were also embedded as part of the course itself, and are described in turn.

In order to support and evaluate participants' development of knowledge and skills in blended learning (from a technological pedagogical content knowledge) we designed a self-evaluation instrument that participants completed before and after the course. Using an online survey (www.SurveyMonkey.com) participants rated their own knowledge and skills related to blended learning, both in terms of level (from 1 = not at all, to 6 = extensive) and confidence (from 1 = not at all, to 6 = complete). They were encouraged to reflect on this experience and what it meant in terms of their learning, and to note this in their reflective journals. The overall results are presented below. Because of the number of items included in the instrument, related items were grouped together for statistical analysis; Knowledge (e.g., "...the learning and teaching theories that underpin blended learning design"), Ability with blended learning tools (e.g., "...using a virtual classroom (e.g., Wimba) in your course/practice"), Ability to manage blended learning (e.g., "...effectively managing a technology-rich/blended learning course"). At the beginning, participants also rated themselves in terms of the frequency and level of technology use in teaching; the majority (87%; 13 of 15) rated themselves as low (very little use) or medium (used a few different tools/technologies). Therefore, it is not surprising that at the beginning most rated their knowledge and skills, and associated confidence, quite low (see Table 1 below). There was a significant change in participants' ratings across all groups of items, indicating that as a result of the course the participants experienced an increase in their knowledge and skills, and also felt more confident.

The COI model was introduced at the beginning of the course, and was specifically incorporated into the set readings and discussion forum activities in the first module. Towards the end of the course, as part of exploring online survey tools, participants completed the COI survey (Arbaugh et al, 2008). As can be seen by the results in Table 2 below, participants rated teaching presence indicators most positively. Cognitive presence indicators were also rated quite highly with integration being the most positive (i.e., combining new information helped me answer questions, reflection helped me understand fundamental concepts). Aspects of social presence were rated least positively, which is commensurate with other course feedback indicating that participants wanted more face-to-face contact, particularly early in the course.

Table 1: Participant evaluation of their knowledge and skills in blended learning

<i>Level of knowledge & skills</i>	<i>Mean</i>	<i>SD</i>	<i>Confidence in knowledge & skills</i>	<i>Mean</i>	<i>SD</i>
Knowledge level: pre-course	2.28	0.99	Knowledge confidence: pre-course	2.41	0.91
Knowledge level: post-course	4.69*	0.75	Knowledge confidence: post-course	4.69*	0.76
Ability with BL tools: pre-course	2.2	0.93	Confidence with BL tools: pre-course	2.68	0.85
Ability with BL tools: post-course	4.33*	0.89	Confidence with BL tools: post-course	4.38*	1.02
Ability to manage BL: pre-course	2.23	0.93	Confidence to manage BL: pre-course	2.61	0.85
Ability to manage BL: post-course	4.42*	0.83	Confidence to manage BL: post-course	4.49*	0.95

* Significant difference between pre- and post-course ratings, with t values ranging between 5.58 and 32.80, $p < .001$.

Table 2: Participant evaluation of COI components of the elective course

<i>Teaching Presence</i>	<i>Mean (SD)</i>	<i>Social Presence</i>	<i>Mean (SD)</i>	<i>Cognitive Presence</i>	<i>Mean (SD)</i>
Design & Organisation	4.16 (0.42)	Affective	3.58 (0.87)	Trigger Events	3.82 (0.70)
Facilitation	4.23 (0.32)	Group Cohesion	3.73 (0.51)	Exploration	3.67 (0.60)
Direct Instruction	4.15 (0.40)	Open	3.64 (0.66)	Integration	4.03 (0.59)
		Communication		Resolution	3.94 (.042)

Note. Responses were made on a scale of 1 (strongly disagree) to 5 (strongly agree)

Summary and conclusions

As suggested by Garrison and Vaughan (2007, p.13), working from an explicit framework in designing this course on blended learning provided us with ‘a means to shape practice...to reflect upon and make sense of outcomes...’ by carrying this framework through into our evaluation. Although brief, the data presented directly reflects the design of the course and together with the work produced by participants, allows us to evaluate and reflect on the success of the course in terms of its underlying philosophy and aims. Whilst participant feedback was positive overall, and gains in knowledge and skills significant, participants felt the need for greater face-to-face contact and earlier development of social connections. This is not surprising, as lack of social interaction or connection is often a reported concern of online students (Smart & Cappel, 2006). However, using the COI model and survey allows us to more richly explore this issue, and continue to modify and adapt our blended learning practice.

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Author contact details:

Debra Bath, c/- Griffith Institute for Higher Education, Griffith University MtGravatt Campus, Messines Ridge Road, MtGravatt, 4121. Email: d.bath@griffith.edu.au

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