

Implementing blended learning at faculty level: Supporting staff, and the ‘ripple effect’

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More and more Australian universities are mandating blended learning approaches, whether for efficiency reasons to reduce face-to-face classes or the need for scarce teaching spaces, to create more engaging learning environments by accessing the benefits online learning provides, or simply to keep up with competitors who have implemented such approaches.

The challenges surrounding the adoption of online teaching approaches are not new. In the face of pressure to offer greater flexibility in their course offerings, Australian universities have, for a number of years, grappled with how to successfully embrace technology-supported learning in a way which engages both academic staff and their students.

In this paper, we use an action research approach to describe how blended learning was introduced at a STEM faculty. We focus on how this has resulted in certain types of staff support provided. We also highlight the faster than expected diffusion of innovation that we have observed.

Keywords: Blended learning, staff engagement, change management

Introduction

At the ascilite conference last year we presented a paper (Loch & Borland, 2014) on challenges faced by the discipline of mathematics when the blended classroom is implemented. We concluded with seven research questions that required investigation, given the increase of blended learning mandates in Australian universities. These questions similarly apply to other STEM disciplines. In this paper, we suggest answers to research question number 6 from last year's paper (Loch & Borland 2014, p. 711):

On a departmental level, what is the best approach for supporting teaching staff (including sessional staff) to develop and implement innovative pedagogy approaches, promote digital content creation and use technology to enhance learning and teaching outcomes?

We do this in the context of an action research project to investigate introduction of blended learning in a STEM faculty at a university that has set a goal of achieving 50% of student learning online by 2020. We first provide the context of this study, then explain our theoretical framework and provide a description of how the introduction of blended learning was approached, and how this has led to the provision of certain types of staff support. We conclude with a discussion of the ‘ripple effect’.

The context

The faculty of STEM was created after a restructure of the university in 2014. In contrast to the other two faculties at the university that both teach into wholly online courses, the faculty of STEM had had little strategic engagement with online learning until the blended learning project commenced. There had been pockets of innovation, with lecturers trialing either their own ideas, or ideas they had learnt about at conferences and through discussions with colleagues (Abdekhodaei, Ekambaram & Borland 2011; But & Shobbrook 2012; Cain & Woodward 2012). Many of the lecturers previously in the engineering faculty were using tablet PCs provided through education equipment funding since 2011, as well as a large number of ‘clickers’. While individual lecturers used these tools to rethink their teaching style, there had not been any professional development on learning design to enable the

change required for blended learning. Many faculty staff had not moved much beyond uploading lecture notes and posting announcements via the Learning Management System.

A university directive to increase the proportion of online learning to 50% resulted in the faculty executive nominating 20 first year units to be redeveloped in blended mode by the end of 2015. This initial proposal resulted in the establishment of the 'Blended Learning Project (BLP)'. A small project team was subsequently convened comprising an academic leader and education developer and, as described later, a successful argument was made to appoint a project manager and technical support officer. A process for ongoing evaluation of the project was also put in place.

Theoretical framework for the blended learning project

We needed a research method that is participative and grounded in experience and that would reflect the context and objectives of the implementation of the blended learning project (Reushle & Loch, 2008). For this purpose, a qualitative action research method (Reushle, 2005), adapted by Reushle and Loch (2008) was modified to design and conduct the project. The model currently has two phases: the first phase corresponds to the pilot units that were redeveloped into blended mode first. The second phase relates to the remaining units to be redeveloped by the end of 2015. Figure 1 shows the iterative, cyclical process to develop, implement, evaluate, and modify the process. The evaluation of Phase 1 led to changes made to the process for Phase 2. In this paper, we will focus on just some parts of this model: the initiation of the project, the refining of the approach, and the unexpected outcomes, which we will call the 'ripple effect'.

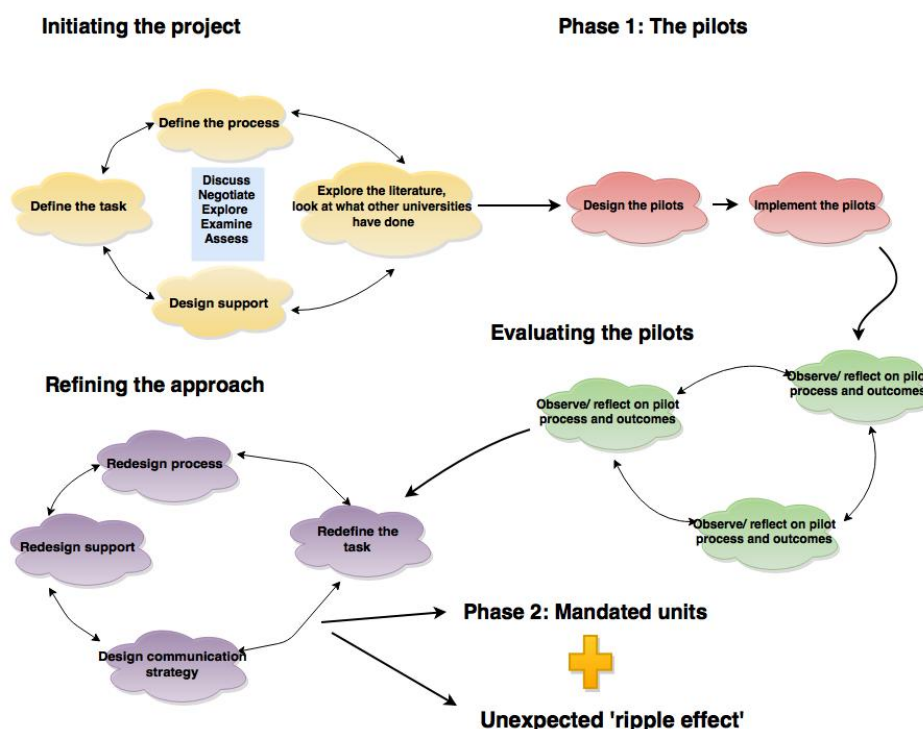


Figure 1: Action research framework for the project

Defining the task

Requirements from the faculty executive as to the level of blended learning to be implemented (Alammery, Sheard & Carbone, 2014) were vague. Therefore, we needed to find a clear definition of blended learning situated in our particular context. From the various definitions available in the literature (see for example Alammery et al., 2014) we opted to embrace an understanding of blended learning as being an approach which increases opportunities for students to engage with content and resources online in order to make more time available in face-to-face classes for active learning. There was a directive from the executive not to set minimum standards.

Exploring approaches taken at other universities

Once the task had been set, we identified how blended learning had been approached at other Australian universities. We spoke directly with colleagues from the University of Western Sydney, who were running a large blended learning project across the whole university. We also audited university websites that described policies and approaches to blended learning. These comparisons to our own situation led us to request funding to bring on board a project manager and a technical officer to support staff with their use of technology.

Defining the process

A multi-faceted process was put in place to support the blended learning project. The first step was to look at the teaching strategies currently being used. Unit teams for the pilot units attended a two-day learning design workshop based on the Carpe Diem process (Salmon & Wright, 2014). These workshops were conducted by the university's central learning and teaching unit, and project team members attended the workshops to provide support for faculty participants.

In these workshops the overall approach to teaching of the unit was considered and learning activities were reviewed and revised in light of the stated unit outcomes. An action plan was developed which outlined the changes to be implemented and any online content, assessments and activities to be developed. Following these workshops, teams were expected to work on their action plans, with support from members of the project team.

Refining the approach

As pilot units started to go through the re-development process, we realised the crucial importance of both allowing for flexibility in the approach taken and of encouraging unit teams to take small steps where appropriate to allow for familiarisation with the technology and the challenges presented at each stage of implementation (Weaver, Robbie & Borland, 2008). The faculty executive confirmed that this approach to delivering blended learning outcomes would satisfy the requirements of the faculty plan.

The format of the learning design workshops was reviewed and it was decided to change it to a one-day format. This allowed more time following the workshop for unit teams to work on investigating different assessment strategies, making videos and restructuring unit sites.

Designing staff support

In putting together a strategy to support staff with unit development, we focused both on formal professional development and on fostering a community of practice which encouraged informal interactions between lecturers. We applied for and received faculty funding to purchase additional tablet PCs. We were also able to establish a 'quiet recording studio', a small office equipped with video and audio recording equipment for lecturers to book to create online resources.

A series of workshops was run to provide advice on education design as well as development and support of resources, assessments, and activities. A number of different workshops were included in the mix: How-to Workshops to introduce tools and techniques, regular Lunchtime Support Sessions to give staff an opportunity to try things out and raise any issues they may have been experiencing, and Shared Practice Sessions to demonstrate what the more innovative adopters in the faculty had been doing and discuss the pros and cons of these implementations. Although these workshops were designed specifically for the purposes of the project, they were open to all staff in the faculty. They provided a valuable forum for establishing a collaborative relationship between academics working on blended learning developments across the faculty as well as members of the project team.

In addition, hands-on education and technical support was provided for academic staff working on blended learning developments. A dedicated space was designated on the faculty wiki to share best practice, and provide access to guides for using strategies and tools and how-to articles as well as information about workshops and other related activities within the faculty.

Designing a communication strategy

A communication strategy had not been necessary in the initiation stage of the project as the number of pilot units had been small. However, to achieve buy-in from teaching staff involved in the mandated units and to have wider dissemination of project outcomes, we developed a strategy to communicate regularly with faculty staff via two key mechanisms:

4. Teaching with Technology Snippets—a short weekly email as a teaser to introduce an available teaching technology, with additional information posted on the wiki
5. Regular emails advertising upcoming sessions, linking to information posted on the wiki.

The ripple effect

As seen above, getting people on board as a result of a faculty directive is not always straightforward. For this reason, we recognized that we needed to foster enthusiasm across the faculty in order for the gains made to 'take hold' and for the uptake of innovation to proceed at a reasonable pace while project resources were available. As Rogers (2003, p. 1) wrote:

Many innovations require a lengthy period of many years from the time when they become available to the time when they are widely adopted. Therefore a common problem for many individuals and organisations is how to speed up the rate of diffusion of an innovation.

Following the pilot phase, a number of nominated units started work on unit redevelopments. The implemented changes included developing ongoing assessment strategies using various online tools and online video to deliver content and demonstrate problem solving strategies, restructuring unit sites to support student learning and increasing use of interactive teaching strategies. These were the planned outcomes of the project.

In addition to these anticipated outcomes, we have also witnessed unplanned, internally-motivated change; this is what we call the 'ripple effect'. Even though units were initially nominated from above, a number of units beyond these were volunteered, including one of the pilot units. This has had the advantage of increasing momentum but also taking advantage of the enthusiasm of volunteers. Since then, further developments have occurred. Some of the teaching staff who attended the learning design workshops, have gone on to implement changes in other units they are teaching. Customised workshops were requested for staff in two departments within the faculty, one of which has elected to undertake its own 'mini blended learning project' with each unit team developing blended learning strategies within their unit. We believe that it is the flexibility and receptivity built into the design of the project that has made these unexpected and desirable outcomes possible.

Conclusion

In this paper, we described aspects of our action research framework to implement blended learning in our faculty. We explained the staff support we had decided was required to answer the question we had asked in our previous paper (Loch & Borland 2014, p. 711). While academics are notorious for ignoring emails, our short snippets resulted in responses from many asking for support or access to a particular technology. The existence of the ripple effect and its growing influence have shown that our efforts have been targeted in the right direction. In particular, the buy-in from a whole department was welcome but unexpected thinking back to the start of the project.

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