



Evolution of blended learning in a large enrolment subject: What was blended and why?

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This paper outlines the model of blended learning which has evolved in a large enrolment undergraduate subject offered across multiple campuses. The pedagogical rationale, management and administrative imperatives, and student expectations which have informed the development of the model are discussed. The current design uses weekly online self-directed learning activities supported by an online tutor, maintains weekly face-to-face lectures which are positively evaluated by students and well attended throughout the semester, and has reduced the number and changed the function of face-to-face tutorials. Student and teaching staff evaluations of the current blended learning model are included along with challenges for ongoing development.

Keywords: blended learning, first-year students, independent learning, higher education

Introduction

Like many other universities, the University of Western Sydney has large-enrolment undergraduate subjects offered on multiple campuses. This paper outlines the evolution of one such subject that has adopted a blended learning model which balances design for student learning with institutional management and administrative imperatives.

The subject, Introduction to Psychology of Health, is 'core' within the first year of several programs, including social work, community welfare, social sciences and health sciences. It is offered across three campuses for over 700 students. Face-to-face (f2f) lectures (2 hours per week) and tutorials (1 hour per week) have been supplemented with online learning activities and resources for some years. In 2006 in-class tutorial time was halved and online learning was increased, with additional supports provided for this environment. Large f2f lectures were maintained.

Falconer and Littlejohn (2007) recognise that educational designs are dynamic rather than static and this paper outlines some of the modifications made in this subject and their rationales. The blended model described is consistent with Twigg's (2003) 'replacement model' in which f2f time is replaced by interactive online learning activities.

The blended learning model

The blended learning model has maintained large lectures held on three campuses and almost halved the number of 'small' group tutorials ('small' in this context is about 25 students). It is often assumed that it is pedagogically sound to retain small classes and likewise rational to reduce or remove the mass lecture where student learning and engagement might be minimal. Phillips (2005) for example, argues that there is a dissonance in espoused educational theory and putative practice in the continued timetabling of large lectures in universities. Although the primacy of lectures can be questioned (see also Garrison & Kanuka, 2004), they are unlikely to disappear in the near future. Phillips recognised the pressures to maintain lectures, such as hesitancy by management to invest in curriculum renewal and policies that enable student-centred assessment, staff resistance to move from this format and student reluctance to transcend the 'teach me' model. First year students, in particular, may not be well equipped to be the independent, self-directed learners required of blended learning (Vaughan, 2007). Students in this subject are enrolled

in on-campus programs and expect to attend lectures. It is the only first year offering in these programs to significantly reduce class time, thereby challenging students' expectations about learning at university.

Lectures are an efficient mode for delivery of content to hundreds of students in foundational courses (Bligh, 2000). However, Bligh also states that lectures are not efficient for promotion of thought or changing attitudes, including inspiring interest in a subject. These conclusions were based on aggregated research which has not been replicated in the current subject. Quantitative student feedback on the lectures in the current subject has consistently rated the following factors highly, well above the University's average: 'intellectually challenging and stimulating' (mean of 7.6 on a 9-point scale), 'interest has increased' (7.7), 'understood content' (7.5), 'held interest' (8.0). Typical qualitative feedback pertinent to the items above include: "stimulating ... got a lot out of it"; "encouraging genuine interest in the subject which I am sure is the best way to learn". Lecture attendance also holds steady at near capacity throughout the semester. One reason for these positive evaluations is that modern lecture theatres support integration of multi-media and web-based presentations of content, thereby allowing the creation of stimulating learning environments. Lectures in this subject integrate video segments to illustrate lecture content, demonstrate web-based interactive exercises and related information, and interpolate regular short quizzes.

Lectures are supplemented by online self-directed learning activities (SDLAs). SDLAs are programmed for students to complete during their tutorial off-weeks. They are a combination of quizzes and interactive activities located on the textbook's website, short readings and weblinks to relevant sites. For example, the lecture on mental health / illness coincides with Mental Health Week (an annual awareness campaign) in NSW so students are directed to that site to research the year's theme. Students keep a workbook of these learning activities; the workbook is reviewed in a tutorial and topics are examined at the end of semester.

SDLAs value and promote independent, adult learning. Students can complete the SDLAs whenever and wherever they wish. Online support is provided to manage the sorts of learning issues identified by Vaughan (2007): expectations that reduced face-to-face means less work; poor time management; and lack of responsibility for learning. The online tutor's role, including support for SDLAs, is described later.

Tutorials supplement and consolidate some of the content covered in the lectures, but their main purpose is to support students in working towards two written assignments (on topics also covered in lectures). While criticism has been levelled at the mass lecture as being dubious for learning, tutorials can be inefficient too. For example, our one-hour tutorials are really only 50 minutes, often reduced by 5 minutes or so for settling in at the start and winding up at the end. It is difficult to keep teaching and learning ambitions contained to this time-frame, especially as it is often only the keenest students who are adequately prepared for informed discussion. Explicitly linking tutorials to assessments has better focussed students' attention and energy.

Management and administrative factors

Garrison and Kanuka (2004) cite a range of lecture replacement learning activities which can be done online. Referring to Heterick and Twigg (2003) they state that: "typically, a large enrolment course replaces one or two lectures each week with any combination of online discussion groups, simulations, discovery labs, multimedia lessons, tutorials, assignments, research projects, quizzes, and digital content" (p. 100). However, in Twigg's (2003) major project with large enrolment subjects across a range of American universities, there were a reasonable number that retained lectures in the 'supplemental' and 'replacement' models. Management and administrative factors (including fiscal constraints) mean that the strategies outlined by Garrison and Kanuka above may well be (at least currently) ideal rather than realistic. In crude terms, given the current model for 700 students over a 12 week semester, if lectures hours were cut in half, there would be a 'saving' of 36 f2f hours; whereas if tutorials were halved there would be 168 fewer contact hours. Like many universities, the teaching staff at the University of Western Sydney is highly casualised and there has been an imperative to reduce reliance on sessional tutors.

Yoon and Lim (2007) argue that blended learning should take account of long term project and performance goals, including institutional imperatives (see also Dziuban, Hartman, & Moskal – 2004.) The blended model in this subject takes account of the fiscal climate and more practical factors such as the availability of qualified tutors and students' preferred tutorial times. Students alternate tutorial attendance with online activities (there are two strands of tutorials with half the students in each strand so that tutorials in one week are repeated the following week for the other half of the students). Casual

tutors have always been employed to conduct tutorials in this subject. They are essentially paid to prepare for and deliver the tutorial program under the guidance of the subject coordinator and are only available to students while on campus during tutorials. Halving the number of casual teaching hours allowed some of the 'saved' hours to be re-allocated to an online tutor; the balance was returned to the host School. The budgetary reality was that online support could only be bought within the allocation of tutorial hours for the course.

There have been beneficial side-effects of reducing tutorial hours. Room costs have reduced and timetabling has become more concentrated in the hours that students prefer (those who find themselves in inconvenient timeslots are only inconvenienced for half the time). A smaller team of tutors is required, making communication and administration easier as well as facilitating consistency in teaching and marking.

The online tutor

Employment of an online tutor has not only enabled support for the various learning tasks that students undertake, but has distributed this support to meet student demand. The online tutor's hours are flexible, providing 'just-in-time' support for assignment preparation (particularly during peak demand as assignment deadlines approach) and completion of SDLAs. Support includes moderation of online discussions and development of resources such as FAQs and tips for completing assignments. The online tutor directs students to targeted resources on the subject's web site such as: discussion boards, assignment guides and exemplars, marking rubrics, assignment writing and referencing guides and quizzes. The online tutor also provides additional support to students who are considered 'at risk' of failing the subject because they have failed their first assignment. These students are offered the facility of submitting a draft of their second assignment to the online tutor for feedback and an extension of one week. Approximately half of the offers are taken up. The evidence is that students who failed their first assignment tended to improve on their second (which has similar requirements). This could be a practice effect, or even regression to the mean. However, students who received pre-submission feedback from the online tutor did, on average, seven percent better than those who did not receive feedback.

The online tutor also participates in and moderates a tutors' forum. The f2f tutors teach on different campuses on different days and do not meet regularly. The forum functions as a community of practice, as well as a means for distributing files and information.

Evaluation of the current blended learning model

A range of evaluation data has been accumulated to inform development of this subject. Student input has been gained through institutional instruments that provide quantitative and qualitative feedback on the subject and teaching, and purpose-built online surveys that ask students about the particular design features of this subject, its web site, the blended learning model and the online resources, learning activities and supports. Online, asynchronous student focus groups provide an expansive, interactive qualitative supplement to these evaluations. Tracking data from the subject's LMS is also used extensively for both formative and summative feedback. (For example, although SDLAs are programmed through the semester and are relevant to specific lectures, a large number of students 'hit' these files just before the exam.) Tutors also participate in discussion forums and evaluation meetings to provide feedback to the subject coordinator, who also has components of the subject reviewed by the University's teaching experts in the Teaching Development and Student Learning Units.

In relation to the blended model, it is clear from tracking data that students are heavily using discussion topics and accessing resources. For example, in Spring, 2007, there was an average of 2,080 login sessions per week and, referring only to discussion topics moderated by the online tutor, there were 550 posts (the number of posts read was many times this number). Yet, a proportion of students appear to be unconvinced about the blended model. In the 2007 online survey, 45% of students strongly agreed or agreed with the statement "I would have preferred a tutorial every week", 35% strongly disagreed or disagreed and 20% were neutral. Similarly, in the same survey, when students were asked to choose between the blended model and the common f2f format, 58% preferred the former (42% the latter). These preferences could be directly related to the model. However, qualitative comments on the institutional instruments indicate a general dissatisfaction with the tutorials, at least for a substantial minority of students. These 'need for improvement' comments ranged from the frequency of tutorials (e.g. they should be weekly rather than fortnightly) to the content (e.g. it should be more closely aligned with lectures) and the expectations of tutors (e.g. they expected too much reading and preparation).

Tutors have also been concerned because they meet tutorial groups only every second week and therefore do not get to know their students as well as when they met every week. They have expressed frustration about students' lack of preparation for tutorials and the relatively shorter time-frame to work on this problem.

Challenges and responses

The most recent challenges for this subject articulate with those identified by Vaughan (2007) for blended learning, especially for first year students: time-management, responsibility for learning, and expectations (i.e. the perception that fewer f2f hours equate to less work). Blended learning is not a common model used in the courses served by the current subject and therefore these three factors combine to restrain the effectiveness of both online and related f2f learning activities. The lecturer's enthusiasm for building a blended learning subject has also meant that the students have sometimes been left behind. For example, for the first time in 2007 all resources for online and tutorial learning activities were only available online. Feedback from tutors was that the students were less prepared than in previous years for tutorials, with many not having done the readings and a substantial minority not having downloaded the resources in a timely manner. The message from tutors and students was that the challenges identified by Vaughan, as well as cost factors for students (ie download limitations and printing costs) worked against effective use of in-class time.

Getting first year students to read and to prepare for in-class learning is a ubiquitous problem and, the negative feedback prompted the lecturer to review the Oliver and Herrington (2001) model for online learning, in which a Venn diagram shows three intersecting circles of learning tasks, learning resources and learning supports. Although learning resources were provided and the tasks were well defined, the problems were most likely due to supports, including the availability and structure of the resources.

Based on student and tutor feedback, three integrated strategies are now being tested. First, students are now provided with the choice of an online or hard copy reader; second, structured learning activities have been built into the reader, which has now become a 'workbook' for tutorial and assignment preparation; third, each set of learning activities in the workbook are linked to an assessed online quiz, which has to be completed prior to the tutorial. The tutor team has also been involved in additional pre-semester training in effective small group facilitation and providing effective feedback on assessments.

The focus for Spring 2008 is to improve the quality of tutorial time by promoting student engagement and investing in the tutors' skills. The evaluation task is to find out whether students are more satisfied with their f2f tutorials and thereby the blended model. These strategies illustrate Falconer and Littlejohn's (2007) notion of educational designs being dynamic rather than static and student and tutor feedback will continue to inform the evolution of this subject.

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