Attempting to realise the potential of blended learning: An initial teacher education case study

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Although a lot has been written and said about blended learning, realising the potential that has been written and spoken about is challenging. This paper presents a case study of an initial teacher programme where a commitment to providing more interactivity, ensuring media richness and to personalising the learning experience for students led to a reconceptualisation of the delivery and a move to a blended learning approach. The nature of teacher education is explored and considered alongside the potential of blended learning and the question asked: Can an initial teacher education programme be redesigned in a way that realises the potential of blended learning? In attempting to answer this question design, development and implementation issues are explored and the responses to them outlined. The paper concludes with suggestions for other higher education institutions contemplating similar change and some initial thoughts about assessment and evaluation of the effectiveness of blended learning in the university based initial teacher education programme that provided the case study for this paper.

Keywords: blended learning, programme implementation, programme redesign, initial teacher education

Introduction

Realising the potential of blended learning is proving to be a challenge. Much has been written and said about blended learning and the contribution it could make to higher education. So far the promise largely remains just that and the potential sits as a tantalising possibility. Garrison and Kanuka (2004) captured the essence of the issue, identifying what they called the transformative potential of blended learning, and called on higher education institutions to react to the challenge with "understanding and vision but also with courage and decisiveness…" (p. 103). They describe most institutions of higher education as lurching about. It seems that if we are to move beyond potential to realising the academic, student, teacher and institutional benefits of blended learning we need to approach its use in a more purposeful manner. This paper describes an initiative designed to do just that.

There are many definitions of blended learning. Most definitions refer to the convergence of traditional face-to-face and online (digital) environments signaling the richness that can be achieved through that combination. Such definitions, although engaging, present a simple picture and mask the complexities of the term and the challenges of designing a true blended learning approach. Simple definitions encourage many practitioners to declare they engage in blended learning already. Perhaps this is where part of the problem with realising potential lies? What is needed is an understanding that while blended learning does focus on changing traditional patterns of face-to-face teaching through the incorporation of information and communication technologies (ICTs) it is not an additive approach. Rather blended learning seeks to transform the learning experience. It seems imperative that blended learning be seen as a transformative approach that requires a deep understanding of learning, teaching, ICTs and needs a commitment to a planned system-wide approach that attends to student, teacher and institutional issues for its potential to be realised.

Transformation of the face-to-face learning experience is possible through attention to four key affordances that blended learning brings. Anderson (2006) talks about the possibilities collaborative, interactive, media-rich and personalised learning bring to blended learning. Attention to these four factors in any move to the use of a blended learning approach will help develop an essential focus on meeting the challenges of student engagement and connectivity, rethinking teaching approaches, focusing on high quality learning experiences and bring into focus system-wide issues that need to be addressed. In addition a move to blended learning needs to consider the combinations of delivery modes that are manageable by staff and students, effective means of supporting student learning, and approaches that are

cost-effective for both students and institutions. Without consideration of all these factors the potential of blended learning can never be realised.

The nature of teacher education

Initial teacher education programmes need to develop content, context and practice knowledge (Simpson, 2003). However, the need, particularly at the primary school level, is not for compartmentalised courses. Rather, interdisciplinary content knowledge needs to be integrated and interwoven with knowledge of children, society, learning, and classroom contexts (Darling-Hammond, 2006). Making and keeping connections between all the interwoven strands of a programme is a complex task. Most initial teacher education initiatives that aim for integration and the use of blended learning have done so only at a course or group-of-courses level. Perhaps the usual individually-focused course-based approach is another reason for the failure to realise the potential of blended learning?

Teacher education is underpinned by a set of key values. Teacher education programmes are usually conceived at the planning stage as a whole rather than a collection of courses. Maintaining that whole and keeping a focus on values of integration, coherence and connectedness is not easy. Taking a programmatic approach helps. Programme designers strive to maintain links between content courses and context focused courses – particularly the practicum. Interaction and inquiry are values that are fostered in teacher education as is the habit of reflection. Developing a disposition to lifelong learning and to working in learning focused communities helps to set up beginning teachers for a career in teaching which has a strong focus on on-going professional development and a team approach to working.

A blended learning approach can be used to make a strong match to the values of teacher education. Research and study in the fields of distance, online and adult education provides confidence that we can do this well. We can enhance and personalise interactions and foster interactions between teacher and student and student and student (Hillman, Willis and Gunawardena, 1994). We know that computer-based environments support interaction and foster strong learning communities (Bonk et al, 1998) and that we can build depth into reflection (Paloff and Pratt, 1999 and Rovai, 2002). Rovai's work also discusses the significant relationship that exists between online classroom community and cognitive learning. Rovai and Jordan (2004) found that blended courses produced a stronger sense of community among students than either traditional or fully online courses. Anderson and Simpson (2004) found online teacher education students built a strong sense of community and had no greater dropout rate or difference in achievement than face-to-face students.

Methodology

The problem that this case study sought to address was that of designing an integrated initial teacher education programme based on sound theoretical and research–informed practice in teacher education, adult education and distance education, and reconceptualising the delivery for face-to-face and distance students. The problem had been identified through a formal review process. The programme to be redesigned had been delivered for ten years with both a traditional lecture based face-to-face option, and a distance option that integrated online communication with a more traditional print-based approach. These options had been delivered, quite separately. The redesign presented an opportunity to blend modes, activities and media, and to integrate, from the outset, affordances offered by new ICTs. Although both face-to-face and distance delivery options were part of the redesign the focus in this paper is on the changes made to the face-to-face option.

Data to inform the redesign was gathered through staff working groups, consultation with stakeholders, review of research, examination of programme evaluations and official documents related to teacher education. The review report also contained some valuable analysis of demographic trends and assessment patterns. The review panel had contained national and international experts and the review report incorporated their advice.

The case for the study became a system-wide programme redesign for an undergraduate initial teacher education programme.

Discussion of design, development and implementation

Throughout the process it was clear that to realise the affordances offered by blended learning it had to be accepted that not all teaching could be done in the traditional face-to-face time. The concept of total learning time, which was not new, but was rarely realised, became critical. A blended learning approach

facilitated the opening up of total learning time and the possibility of having students engage with content and each other in a variety of ways and at times outside the traditional face-to-face time. The teaching staff were asked to consider three core components of their courses: those that had to be delivered in the face-to-face presence of the teacher; those that could be directed and guided by the teacher but not have the teacher present; and, those that the students would work on independently. This process identified times when teachers and students needed to work together and those times when they did not. It also created a design environment where it was necessary to explore a wider range of activities for learning. Staff were asked to identify the activities they would like to use (as opposed to those they had always used). In doing this they were encouraged to 'dream' and not limit the possibilities.

The outcome of this work led to the development of teaching outlines for each course that recognised that the teacher did not have to be present for all the teaching time. Acknowledgement of learner independence and choice became embedded in the programme alongside recognition of times and activities where group work could be valuable. Identification of a variety of media-rich activities created greater opportunities for more authentic learning activities. This approach fitted with a commitment that had been made to acknowledge the students as adult learners and to acknowledge the social nature of learning in the redesign. Thus the concept of learning communities became important and led to the development of an online learning environment for the programme and for each course within the programme. A development site for programme staff was also developed to support professional needs and activities. A case was made to allow the redesigned programme to move from the university learning management system and adopt an open source system that more readily supported a constructivist approach to teaching and learning and was easily customisable.

The online learning environment for each individual course contains a combination of electronic resources that form the static content and a set of core communications tools that enable and accommodate the dynamic content of the course in the form of a variety of communicative interactions. The core tools include threaded asynchronous discussion forums, a synchronous text chat facility, a voice chat facility and an email facility. This combination of static and dynamic content allows teaching staff within the programme to create tasks that emphasise learning as an active, participative process in which ownership of the learning programme is shared amongst the community of participants.

The community site for the programme provides a 'gathering place' for non-course-specific activity within the programme. Students engage in conversations ranging from the social to the strategic. Being hosted online with the flexibility of time and place, the community provides important opportunities for various groups of stakeholders within the programme to share ideas and information, engage in meaningful dialogue, and create a culture of productive collegiality. The staff development site allows staff across campuses and sites to have convenient access to a variety of resources, including: key programme documents, background literature which supports key design principles, design templates and other supportive documentation. The core communications tools within the site also support the collaborative work of design teams operating across multiple sites.

The teacher education values outlined earlier were built into the redesigned programme. Drawing from experience, building on experience and learning from experience are promoted and reflect the commitment to treating the students as adult learners. There is a strong emphasis on experiential learning grounded in teaching performance (virtual and field based). Students are encouraged to capture (preferably digitally) examples of challenges teachers or children have posed for them during teaching experience. These are used in either the face-to-face or the self directed time in courses. Video material (delivered by DVD) capturing classroom-based aspects of teaching that illustrate key concepts, pose problems or act as starters for discussion are used in face-to-face and self directed time. Activities in the online forums, such as debates or discussions in response to questions posed about reading material, are complemented by a range of other activities including rich assessment tasks that support and encourage student learning. Assessment across the programme was designed to allow students to demonstrate growth as a teacher and includes the use of an electronic portfolio. Students are required to own a computer (preferably laptop) and a digital camera. There is a wireless campus environment.

Teaching is a profession that requires collaboration between practitioners so a focus on social learning through discussions and group work is promoted. A focus on purposeful engagement through group work that promotes collaboration, negotiation of meaning, questioning and reflecting is the focus in the use of online discussion forums. The control that is given to students in online forums rather than being a concern is encouraged as a way of recognising independence and students' responsibility for their own learning.

Implementation, research and evaluation

An implementation group managed each step of the redesign, development and implementation process, which took two years. The implementation group reviewed all the data and through an iterative discussion process that was framed by the review recommendations, conducted in forums and working groups, supported staff to develop the final model for the redesigned programme. The working groups developed position papers on every aspect of the programme from course content to assessment and management. The process was challenging but ultimately resulted in a programme that is innovative in content and delivery. The programme is currently in its first year. A research programme has been developed and data will be gathered on students and staff experiences, the design and how well structures serve the programme.

Suggestions and recommendations for the implementation of blended learning

This paper has briefly outlined a complex process that set out to build a new programme designed to take advantage of the potential of blended learning. It is inevitable that there will be further challenges and changes will no doubt be made to structures. Changes will come as teaching staff learn more about the potential of blended learning. Changes will also come as a result of student feedback and from analysis of the research data. First indications are that the students are finding the move from traditional face-to-face teaching in set blocks of time to learning across total course time challenging. Overcoming the established face-to-face culture that has unintentionally suggested that coming to class provides the learning experiences in a programme will take time.

As the new programme took time to develop and is built on research and understanding of the former programme, teacher education, online education and adult education change is not likely to be radical. Instead change will arise from research findings as the programme develops and is studied and from innovations in technologies that afford new learning opportunities.

A number of suggestions and recommendations for the implementation of blended learning arise. Briefly, these are: educational principles should drive the use of blended learning and technology can support them well; redesign is better at a programme level; working in teams builds shared understandings and programme ownership; and, incorporating blended learning well takes time and is probably best built over time.

Conclusion

Have we realised the potential? Blended learning appears to offer great promise for teacher education programmes. There seems to be little doubt that we can fashion media-rich, collaborative, personalised and interactive learning environments. That is exciting. The learning environment created would seem to support the aim of enriching the student experience. The approach has been to build from the ground up, to design and to integrate rather than add or replace. The combination of a multi-faceted programme being delivered by a multi-faceted learning approach is complex. That mix has yet to be tested. However, the true test is whether the students find the experience satisfying and whether they are better prepared for their role as teachers. As yet we don't know. The research and evaluation stages of the study, which now follow, will provide data to tell us if the potential has been realised.

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