It’s all in the mix: the evolution of a blended e-learning model for an undergraduate degree

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Abstract

Purpose – The purpose of this study is to evaluate the development of a blended e-learning pedagogical model for an undergraduate enterprise programme. The proliferation of e-learning programmes offers new opportunities and challenges for universities to meet the learning needs of new student markets. However, the use of e-learning as an enabling mechanism for enterprise education remains largely unexplored within academic literature.

Design/methodology/approach – The case study methodology comprises a series of focus groups with key stakeholders in the project, namely online tutors, students and scheme leaders from a number of partner colleges involved in the delivery of the course.

Findings – The study charts the evolution of the blended learning pedagogy which was found to best meet the learning requirements of non-traditional learners on an undergraduate programme. The blended learning pedagogy strategy which was developed replicated the best informal practice that had emerged through each of the partner institutions and the learning needs of the students. Constituent elements of the pedagogy included the provision of structured face-to-face events, a range of student supports systems and the creation of a code of practice for online tutors. As a result, a model of best practice for blended learning is proposed.

Originality/value – This study contributes to the literature in terms of proposing a working framework for online undergraduate enterprise education with identification of critical success factors including supportive induction, viable pedagogy and effective support systems. The framework can be utilised by practitioners and theoreticians as a guide to the effective management of pedagogical issues associated with blended online education.

Keywords E-learning, Undergraduates, Learning methods, Higher education

Introduction

This study considers effective practices in blended e-learning programmes and proposes a practical model from a case study profiled within this research. E-learning provision and demand have increased in recent years appealing both to academia and the private sector (Mitchell and Honore, 2007). Indeed, the Joint Information Systems Committee (JISC) (2005) notes that 95 per cent of higher education (HE) institutions are now operating a virtual learning environment (VLE) E-learning programmes offer several potential advantages including ease of access and enhanced study flexibility (Berge and Huang, 2004; Schmidt and Werner, 2007). The development of e-learning has provided significant challenges for universities and the private sector in terms of restructuring to deal with the different demands of this emergent educational frontier (Katz and Oblinger, 2000). Conventional university institutional pedagogical models have had to be reconstructed to cater for the unique demands of e-learning which
require highly flexible delivery structures (Sims et al., 2002). However, there have been many emergent stories of unsuccessful e-learning implementation including the collapse of the £62 million UKeU project in 2004 (Ennew and Fernandez-Young, 2006). Furthermore, student retention and withdrawal remain an ongoing concern on such courses (Schmidt, 2004). As a result, a number of hybrid e-learning models have emerged including those favouring blended learning pedagogical design (Schmidt and Werner, 2007). However, Oliver and Trigwell (2005) suggest there is conflict regarding the constituent elements of effective blended learning. Sharpe et al. (2006) posit the key attributes for HE institutions in adopting blending learning include the desire to widen participation, enhance the learning process and flexibility of provision, computer aided assessment and encouraging technological adoption.

Within this study, the authors discuss the pedagogical development of an online undergraduate enterprise programme developed by the University of Glamorgan. The study considers existing blended learning literature and thereafter critiques the development of the pedagogical model within this programme. The paper concludes by identifying critical practice for effective blended e-learning delivery.

The problem the research considers is the significant retention issue the programme experienced regarding the initial cohorts when operating a pure e-learning pedagogy. A solution to this issue was developed after in depth consultation with students which involved the introduction of a comprehensive blended learning framework and support. Arising from this the evolution of a blended learning pedagogy was observed with the emergence of a conceptual framework as a model of best practice for the programme. In relation to this the research considers four questions and these are:

1. Why should the ECW project implement a blended delivery model?
2. What benefits would a blended delivery model provide?
3. How did a blended delivery model emerge?
4. What factors are considered to constitute an effective blended delivery model?

E-College Wales
In 2001, the University of Glamorgan initiated the ECW project aimed at creating and improving entrepreneurial and managerial capacity in the European Union Objective One areas of Wales, where such activity has been deficient. The ECW portfolio comprises three programmes namely the BA Enterprise, Foundation degree and MA in Professional development, which are supported by the University of Glamorgan and partner colleges throughout Wales. The BA Enterprise course was developed to encourage students to undertake an entrepreneurial career through an effective business start-up. This study focuses on the BA Enterprise, which was developed purely as an e-learning programme for the project. The BA Enterprise was employed as the pilot programme for the project with the other courses (MA in Professional Development and Foundation degree) being introduced during 2002. Both these programmes existed prior to the ECW development as distance learning courses. The course was piloted in September 2001, with over 370 students and is available as a part-time or full-time degree in three component qualifications of certificate, degree and full honours degree with each award comprising six modules.
The initial pedagogical model

Initially, the ECW development team employed a pure e-learning pedagogical model (see Figure 1) for the project based on advice from a leading consultant in the field. Within this model there was no face-to-face contact with the student from their enrolment through to graduation. All tutor/student interaction and communication occurred within the virtual learning environment (VLE). The VLE utilising Blackboard comprises both a communication and content area. The communication area allows students access to three media namely: e-mail, discussion board and virtual classrooms to enable them to interact with peers and staff. The content area contains individual modules of study which are divided into sub topics and includes text-based learning material and case studies utilising graphical and audio techniques. Both these areas are fully inter-related through hyperlinks. It was envisaged that students and tutors would communicate via the Blackboard communication media within the virtual environment. No other contact between the parties was considered necessary. The ECW administrative team would operate in the physical environment dealing with the administration of the programme. However, the initial cohorts of the programme incurred a significant retention problem, and it was identified that there was a need to evaluate the situation and revise the pedagogical model to best support the needs of these entrepreneurial learners (Jones et al., 2004). Informally, within the project, various tutors began to provide blended learning. This involved tutors meeting student groups and provided structured support sessions which seemed to increase learner satisfaction. It was felt that to fully evaluate this process all key parties (tutors, students and scheme leaders) had to be considered. Furthermore, it was agreed to identify best practice within existing blended e-learning models via a literature review.

![Figure 1. The ECW pure e-learning pedagogical model](image)

Source: Jones et al. (2004)
Background
Enterprise education started in the UK in 1976 with the Labour Government strategy to combat the anti-industry culture in schools and this was developed further by subsequent governments. In the USA it is called entrepreneurship education and includes a business creation focus. A definition of enterprise education is that it:

... is directed toward achieving a learning culture which will result in greater numbers of students equipped and enthused to identify, create, initiate and successfully manage personal, business, work and community opportunities (Ed-ventures Magazine, 1997).

Enterprise education has seen a growth in provision since the 1980s in schools, vocational colleges and higher educational institutions (Peterman and Kennedy, 2003). In addition, individuals involved in enterprise education have increased to include owner managers, students, pupils, graduates, women, the unemployed and other disadvantaged groups (Caird, 1990; Curran and Stanworth, 1989). A recent development with regard to enterprise education is its delivery by e-learning as instanced with the ECW programme. Here, e-learning enables the enterprise student to learn at their own pace and at a suitable time. Enterprise e-learning refers to enterprise study courses which are delivered online, rather than content which can be downloaded later. It also incorporates the use of e-mail, chat rooms and other e-learning facilities to offer a comprehensive means of learning new enterprise skills both through self study and interaction with an online tutor. The online tutor’s role is to develop the student’s knowledge on weekly learning topics by online discussions based around the learning material.

Blended learning
Blended learning describes a pedagogical solution that combines both traditional face-to-face teaching and e-learning (Little, 2006). The rationale being, to capture the benefits of face-to-face teaching and e-learning pedagogy (Mitchell and Honore, 2007; Schmidt and Werner, 2007). However, Kerres and De Witt (2003) identify that there is ambiguity and confusion over what this combination actually comprises. Singh and Reed (2001) and Garrison and Kanuka (2004) define blended e-learning as a learning experience that combines off-line and online forms of learning whereby online learning means “over the internet” and off-line learning occurs in a traditional classroom setting. The ad hoc emergence of blended learning in support of e-learning prompted Young (2002) to state that it provided “the single greatest unrecognised trend in higher education today”. Whilst, Williams (2003) has identified that blended delivery is growing in popularity with the shift from traditional teaching to e-learning. However, Singh and Reed (2001) state that little formal research exists on how to construct the most effective blended learning programme whilst Williams (2003) recognises that it is a major challenge to finding the right balance of integrating the various delivery mechanisms into a seamless package. Kerres and De Witt (2003) and Marsh et al. (2003) identify that blended learning can include classroom instruction, interactive web based training, e-mail communication, self-paced content and study, threaded discussions, collaboration software, virtual classrooms, print based workbooks and online testing. Indeed, Aycock et al. (2002) and Boyle et al. (2003) stress that effective blended learning requires a full course redesign which has obvious time and cost implications. Denis (2003) states that to successfully utilise blended learning it is vital to know...
whether the student possesses the technical skills to utilise the online learning environment effectively. This suggests the need for effective face-to-face training into the use of the learning environment as an introduction to the programme followed by a structured series of events. To understand the nature of blended learning provision it is necessary to explore the benefits and disadvantages that occur with this medium.

**The benefits of blended learning**

The incentive to offer blended e-learning derives from the desire to offer the most effective elements from both traditional classroom based delivery and the e-learning medium. The benefits of both mediums are well recorded in the literature. The benefits of e-learning to the individual have been identified as including savings in terms of trainer and employee costs (Williams, 2003; Voci and Young, 2001; Van Dam, 2001), providing an alternative to travelling to a centre of learning and lower costs for the learner (Munro and Munro, 2004; Piskurich, 2004). In addition, flexibility enables the student (see Figure 1) to learn at any time or place including remote areas (Piskurich, 2004; Frank et al., 2002). E-learning has also been identified as respecting differences in learning style and pace (Sharpe et al., 2006; Piskurich, 2004; McVay-Lynch, 2002) and can foster a greater degree of communication (see Figure 1 “Communication Area”) and closeness among students and online tutors (Joliffe et al., 2001). Further advantages are identified as consistent learning material compared to human interaction (Voci and Young, 2001), course content in one accessible location for learners and online tutors (McVay-Lynch, 2002), easily updateable materials (Barabash et al., 2003; Joliffe et al., 2001) and the ability to access mass international markets (Ennew and Fernandez-Young, 2006).

By contrast, advantages of traditional teaching as identified by Voci and Young (2001) include providing the social interaction that human beings need and enjoy by the direct exchange of ideas. Second, a familiar learning environment that students are comfortable with based on their previous education experiences. Finally, traditional teaching creates an interactive learning environment in which learners can test their own attitudes, choices and reaction against peer and tutor. Garrison and Kanuka (2004) posit that a key facet underpinning the effectiveness of blended learning is its ability to generate a community of inquiry. These communities can provide critical debate, free flowing communication, negotiation and agreement. The effectiveness of these communities can be enhanced by utilising a blended learning strategy. Little (2006) and Marsh et al. (2003) identify several advantages of blended learning as equivalent or improved instruction, an engaged model of learning, accelerated completion of courses, self paced or personalised instruction, reduced drop out and re-enrolments in the same course and reduction of course duplication and redundancy.

**The disadvantages of blended learning**

Both traditional and e-learning mediums have inherent disadvantages that must be avoided and can be overcome with effective blended learning. Van Dam (2001) suggests that e-learning solutions cannot currently duplicate all features of traditional teaching. The critical factor therefore is that they supplement each others’ strengths and meet the needs of the student group. Blended e-learning offers several key facets as identified by (Van Dam, 2001) including team building which allows group relationships to develop and a shared sense of purpose, interaction with tutors,
whereby feedback and individual coaching from a tutor on a one to one basis can specifically develop knowledge and overcome any problems or barriers and clarify any issues. In addition, the potential for networked learning allows the group to exchange and develop ideas freely, improve consistency of teaching and training, as it is not subject to variability of performance in terms of mood and health of the traditional tutor, etc. Moreover, blended learning offers considerable flexibility and time savings because students can select the time and location of study and reinforces new knowledge, builds confidence and allays fears (Smith, 2001).

Blended learning – case histories
There is an emergent body of evidence supporting successful blended e-learning. Dean et al. (2001) identified cost and time savings and a 10 per cent improvement in learning outcomes in their study of MBA students. Kiser (2002) reported on a two-year study by Thomson Learning of 128 respondents investigating the effectiveness of blended learning in comparison with a pure online course based on the teaching of spreadsheet software. The study found that a blended e-learning group performed their tasks with 30 per cent more accuracy than the online group and 41 per cent faster. The Thompson Learning study identified five core elements contributing to the success of a blended e-learning programme namely use of scenario based exercises to teach a subject, integration of learning objects with realistic scenarios, early use of the knowledge or skills, access to live mentors during the online portion of the training and assessments designed to mimic real world tasks. Thus, the evidence suggests blended e-learning pedagogies are successful; however what conclusions can be drawn on successful implementation. Pailing (2002) identifies that e-learning is best used as a complement to traditional methods of training and should not be viewed as a replacement. Trasler (2002) identified that it was the overriding aim of a blended e-learning programme to meet the training requirements of both the individual learner and providing enterprise with the appropriate mixture of learning media. Stewart (2002) found that students valued the face-to-face element of the blended learning experience, but also the ongoing communication availability of tutors in the VLE (see Figure 1, “The virtual online environment”). Rabideau (2003) identifies that blended e-learning is a transition strategy that has occurred with the emergence of e-learning to supplement and even replace classroom based teaching. He identifies that the need for blended learning will evolve as the technological design of VLEs matures and design, development and delivery methods improve. Davies et al. (2005) found that their blended learning approach provided a more student centered, interactive and flexible approach to student learning thus developing skills with more proficiency. Kim and Choi (2004) reported on the success of blended learning within the Hyundai Motor Company. They identified higher student course completion (98 per cent) attainment than was achieved on the programme previously as a traditional face-to-face course (94 per cent). Having identified the success stories of blended learning the next section will consider the strategies underpinning successful deployment.

Effective strategies for blended delivery
A number of suggestions have been made regarding the effective construction of blended learning pedagogies. Mortimer (2006) suggests introducing a blended e-learning strategy to ensure multiple learning channels are available to meet
individual learning preferences. Frank et al. (2002) recommends that the tutor meet face-to-face with the students at the beginning, middle and end of the course. Khine and Lourdusamy (2003) suggest ensuring face-to-face tutorials are activity based, any materials on CD ROM are authentic, relevant and course marks are allocated to encourage online participation. Mason (2002) suggests a combination of contact via telephone and face-to-face tutorials with asynchronous online media are beneficial to students. Hameed et al. (2007) found that blended learning approaches offered the most flexible, efficient and scalable method towards effective student study. Other successful practices identified within the blended learning case studies included making the learner the central focus of the course, that there is a continual process of development and feedback, flexibility, variety and adaptability are present in the structure of the programme.

In summary, the literature on blended e-learning remains limited with reference to mainly private sector experiences of largely descriptive case studies in professional journals. However, the experiences are without exception positive and have resulted in the achievement of higher learning outcomes and reduced costs in comparison with traditionally taught programmes. There is, however, a lack of evidence related to the university sector in terms of their experience with blended e-learning, their evolution and frameworks of pedagogical delivery and support. The authors attempt to bridge this gap and present a conceptual framework for modelling the blended enterprise e-learning process effectively. This framework will be of value to educational policy makers in designing and implementing effective blended e-learning strategies especially in the field of enterprise.

Methodology
Given the authors’ involvement within the ECW project as online tutors it was felt that they could accurately reflect on their experiences to the benefit of other enterprise educators. The authors identified the best research strategy to encompass their experiences within the project as a case study methodology focusing on the delivery pedagogy of ECW. Yin (1984) posits the use of single or multiple case studies. The aim of this exercise is to describe the pedagogical practices within the project which will enhance the theoretical conceptions of blended delivery of enterprise education. This research will have significant value for e-learning and enterprise education practitioner providers. The case study methodology as proposed by Yin (1981) would comprise a series of focus groups with scheme leaders, online tutors (see Figure 1) and student groups and a historical recount of the development of the project (Eisenhardt, 1989). Given the complexity of the ECW project and the research issues therein it was recognised that a qualitative research technique was required to capture the fullness of the information (Robson, 2002). A research instrument in the form of a semi-structured questionnaire was designed to elicit responses from all parties to provide a multi-faceted analysis regarding what factors contributed to the development of the final pedagogical model (Oppenheim, 2000). Overall, four open style questions were presented within the research instrument. First, respondents were asked to justify the need for a blended pedagogy and the benefits that it provided. Furthermore, respondents were asked to consider how the blended pedagogy had emerged and to describe its components. The ECW Blended Learning questionnaire was therefore composed of the following four questions:
(1) Identify why the ECW project should implement a blended delivery model.
(2) What benefits would a blended delivery model provide to you?
(3) How did the Blended delivery model emerge?
(4) What factors do you believe constitute an effective blended learning model?

A total of 12 focus groups were held at the University of Glamorgan and five partner colleges throughout Wales (Bridgend, Sir Gâr, Gwent, Llandrillo and Pembroke) with both a student group and online tutor team (see Table I). The student groups comprised between six and ten students and the tutors between four to six participants. In total 41 students, 34 online tutors (otherwise known as e-moderators) and two scheme leaders were interviewed. Each focus group lasted between 40 and 60 minutes and allowed for free flowing discourse around the central issues (Zikmund, 2000). Finally, the scheme leaders were interviewed to address any University and programme related issues behind the development of the pedagogical model. The discussions within the focus groups were recorded and later transcribed. The data collection process proved extremely successful with both students and college tutors eager to participate and contribute to the development and improvement of the programme. If anything the interview sessions overrun due to the enthusiasm of its participants. Thereafter, participants received a copy of the transcript to ensure accuracy. The results of the focus groups were then evaluated and contrasted against the research instrument to identify the differing user perspectives of the necessity, benefits and evolution of a blended learning strategy.

The ECW case study provides an in depth profile of an online entrepreneurial programme consisting of a detailed historical profile of the project plus focus groups with key parties (tutors, students, and scheme leaders).

**Table I.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Centre</th>
<th>Participants</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>University of Glamorgan</td>
<td>6</td>
<td>Tutors</td>
</tr>
<tr>
<td>2</td>
<td>University of Glamorgan</td>
<td>10</td>
<td>Students</td>
</tr>
<tr>
<td>3</td>
<td>Bridgend College</td>
<td>6</td>
<td>Tutors</td>
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<tr>
<td>4</td>
<td>Bridgend College</td>
<td>6</td>
<td>Students</td>
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<tr>
<td>5</td>
<td>Coleg Sir Gar</td>
<td>6</td>
<td>Tutors</td>
</tr>
<tr>
<td>6</td>
<td>Coleg Sir Gar</td>
<td>7</td>
<td>Students</td>
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<td>7</td>
<td>Coleg Gwent</td>
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<td>Tutors</td>
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<tr>
<td>9</td>
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<td>Students</td>
</tr>
<tr>
<td>13</td>
<td>University of Glamorgan</td>
<td>2</td>
<td>Scheme leaders</td>
</tr>
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</table>

**Findings**

This section will consider the move towards blended e-learning on the BA Enterprise degree based on the analysis of the focus groups undertaken with tutors, students and scheme leaders. Each of the research questions is considered in turn namely the reasons for a blended learning strategy, identified benefits, its evolution and effective
components. Thereafter, the revised blended e-learning model is discussed utilising the conceptual framework.

The rationale for blended learning
The online tutors identified that a blended pedagogy was required due to a combination of factors. First, to meet the needs of the Enterprise students as they were non-traditional learners. Analysis of the group demographics revealed that the typical student was over the age of 40 with basic IT skills. The consensus opinion of the online tutors was that the students required initial face-to-face training in basic IT skills (e.g. file management, surfing the internet) as well as specific sessions in navigating and utilising the VLE effectively. Furthermore, they also required ongoing support in each module to explain the theory and concepts as well as the assessment requirements. This support took the form of a number of face-to-face sessions with a student group as it was felt that online learning in isolation was not sufficient for this student group. In addition, support sessions were provided with individual students to develop IT skills and develop subject knowledge where required. Statements included:

It becomes apparent fairly quickly that the majority of the students were struggling to cope. In all honesty the majority of these people had not had any formal education for 20 years and just being a student was going to be a difficult task let alone on an online learning student.

There are a lot of things to take in with e-learning including the hardware, the software (Blackboard), the course design, the University and partner colleges and all their preconceptions, budgets and timetables, the student and whatever baggage they bring and the e-moderators. All of these elements have to integrate and interact effectively for the course to be a positive and worthwhile experience.

The student focus groups mirror the comments of the online tutors. The students requested and welcomed face-to-face sessions to supplement online provision. In terms of how and why the face-to-face element occurred the students felt it simply met their needs and allowed them to learn more effectively. Comments included:

...the initial Blackboard face-to-face training was essential for us to find our way around the system and know what to do.

We vote with our feet, if we did not want the face-to-face sessions we would not attend. We did and we still do!

Both tutors and scheme leaders identified the need for a blended learning pedagogy to ensure student-learning needs were met and the course operated efficiently. This included initial and ongoing training and tutoring support from the e-moderating team. In summary, the student views support those of tutors and scheme leaders in identifying the importance of blended learning to a successful student experience. Students noted the need for initial training in the use of the VLE and ongoing tutor support throughout the learning experience. Interestingly, students noted the importance of blended learning to develop social relationships between themselves and tutors.

It is evident that a blended pedagogy requires the right “mix” of factors for it to work effectively. This involves “needs satisfaction” for non-traditional learners, IT skills training including navigation and utilisation of the VLE, and ongoing provision for module theory and concepts support and assessment requirements through student groups and face-to-face sessions.
Benefits of a blended learning strategy

Students identified that the blended learning model made the course more achievable and understandable especially in terms of specific skills (e.g. IT skills). Moreover, several suggested that students welcomed the opportunity to meet fellow students and staff to socialise. Comments included:

- It’s great to be able to meet fellow students and the tutors so that we can get to know and understand each other.
- I felt better prepared for the course having attended the face-to-face sessions. In these we did some basic work on our IT skills like using e-mail effectively and understanding how to use Blackboard properly. These sessions certainly helped me use the system more effective.

Similarly, the tutors identified that face-to-face sessions increased understanding of both practical and theoretical concepts and increased student socialisation between peers and staff enabling the development of a community spirit. Comments included:

- It was great to meet and understand where individual students where coming from. By that I mean that students had different motivations some were after specific knowledge whilst others were chasing the qualification. The face-to-face environment gave me more opportunity to connect with the students on a personal level and understand their individual needs. In the VLE some students are timid and are not prepared to post regularly. This disadvantages them to an extent.
- Students were able to socialise and get to know each other on a face-to-face basis. This seemed to encourage further online socialisation.
- We were able to develop student knowledge and allow students to overcome problems. These problems could relate to completion of activities, effective use of Blackboard or just overcoming uncertainty.

Most importantly, results indicated that a blended learning strategy improved student results, satisfaction and retention. Here the “socialisation” of the student is important. This arises through student interaction and face-to-face sessions with tutors.

The evolution of the blended learning model

In terms of how and why the blended e-learning module emerged, the online tutors felt that it was a combination of factors. Initially, the VLE was unreliable causing confusion and anxiety, and the face-to-face sessions were required to reassure. Second, students constantly requested face-to-face sessions to provide additional training and support. Third, the tutors identified that initially they felt more comfortable in their traditional teaching role in a face-to-face situation rather than the online environment. The combination of these factors resulted in ad hoc face-to-face sessions being held by individual tutors. The success of this practice drove the need for a standardised code of practice across all programme providers. In addition, the scheme leaders recognised the need for support bodies to provide technical and academic support and initiated the introduction of a customer service team to assist students and take some of the pressure off the tutor team in terms of providing technical advice and problem solving. Comments included:

- I think we all came to the same conclusions. The students needed extra support and we provided it via face-to-face sessions. As we know this became course policy thereafter.
It was a learning curve for us all the majority of us at the college had never taught online before and had to break out of our comfort zone. For some this involved falling back on face-to-face delivery to ensure student achievement.

I would say blended learning has been a great success. A blended learning pedagogy allows us to inform the students, dispel fears and the students get to bond and create relationships. A combinatorial approach to the evolution of the blended learning model is therefore essential. Through this, by dealing with the combination of factors that are evident, it enables the right action to be taken with regard to the teaching environment, face-to-face sessions, standardised code of practice and support bodies providing technical and academic support.

What factors constitute an effective blended learning model?
The feedback from tutors and students allowed the course team to revisit the programme delivery model and revise it to a blended learning strategy (see Figure 2). This blended learning strategy involved a combination of online synchronous and asynchronous activities and face-to-face support from a variety of bodies. The revised ECW model was introduced during 2004, Figure 2 provided a diagrammatical description of this model whilst the following sections provide an explanation of the learning model and support mechanisms.

A revision policy for an effective blended learning model is therefore important. This enables the implementation of a blended learning strategy through the use of good feedback.

Face-to-face provision
A structured programme of face-to-face activities was identified whereby students attend a three day induction to be accepted onto the programme and thereafter have the option to attend a series of evening sessions for support in specific modules. In addition, students had the opportunity to arrange individual one-to-one sessions with tutors for individual support sessions. Tutor comments included:

I spent many hours talking some students through the learning environment. I often had to repeat a session with the same student. Unfortunately some students required the emotional crutch of a tutor to support them whilst others took to it like a duck to water. The face-to-face sessions provided a best fit strategy for all students.

Student comments included:

Knowing when we had to attend the college and the purpose of the session was very important. We could weigh up whether we needed to attend and put the necessary child care and travel arrangement in place.

A structured programme is therefore critical here. By doing this it is possible to have flexibility in provision through attendance at evening sessions and one-to-one sessions with tutors.

The virtual learning environment
The course utilises "Blackboard" software, which includes a range of synchronous and asynchronous communication mechanisms including discussion boards, e-mail and virtual classrooms. Blackboard is an integrated set of web-based tools designed for the
Figure 2.
ECW BA Enterprise
blended learning
environment
creation and management of a VLE. Blackboard’s tools include: course development and management; statistical; content management; communication and collaboration; assessment; personal information management; academic web resources and system management (Jeffers et al., 2003). Course materials are linked to “Blackboard” via a VLE (see Figure 1. “Virtual Learning Environment”) supporting text-based learning material and case studies utilising graphical and audio techniques. Students have an expectation that the VLE will be reliable, robust and user friendly thus improving user satisfaction levels (Sirirongthaworn and Krairit, 2006). Students are expected to participate regularly within discussion boards and other communication media to develop their subject knowledge and share experiences. Scheme leader comments included:

There was a very steep learning curve and we learnt by trail and error. VLE reliability and stability are absolutely critical to programme success. All students have a certain window when they learn. If this is disrupted then their success on the course can be compromised. A blended learning model was certainly beneficial in overcoming a number of hurdles caused by VLE problems.

For the VLE to operate efficiently an integrative philosophy to “online” and “offline” work by both the tutors and students, aids the teaching process. Here, a whole host of communication mechanisms, web-based tools and course materials can be brought together to provide a “rich” learning experience.

Support systems
In addition to the pedagogical design issues the ECW team identified the necessity for a range of support mechanisms to assist the online learner. These incorporated both internal and external systems to the VLE. Internal mechanisms included monitoring and encouraging student activity within individual learning groups, which were initially maintained by an academic online tutor and thereafter by a Quality Assurance and Administration (QAA) team. In addition, the QAA department undertook an administrative function dealing with student recruitment and registration status via a database system. External systems included the Information Systems and e-learning Services (iSeLS) department, whose role was to support the technical needs of the e-learning student via a telephone helpdesk and email. The Learning Resources Centre (LRC) section, maintained and provided access to electronic and physical information sources for students and staff. The role of these bodies and systems is fully explained and illustrated within the blended delivery framework. Tutor comments included:

Our students did not learn at the same time as traditional students. Therefore they required a different type and level of support. Hence, the need for all the support systems with an evening and weekend help desk facility available.

The help desk took a lot of the stress and minor queries regarding passwords out of our domain which was great.

These views are supported by students whose comments included:

The help desk was great. If I had any problems I knew there was someone who could help at the end of a telephone.

When I had technical problems these were usually sorted rapidly and efficiently by the help desk.
A positive role actualisation process for the support systems and departments for the course to operate through is critical for the successful operation of the programme. This empowers the support departments to act in an organised, fast and supportive manner which provides necessary and appropriate support for the online learner.

The role of the online tutor
The tutor acts as a facilitator to guide the student through the learning experience and thereby encourages online activity by aiding students through weekly tasks and monitoring and guiding these discussions. Typical online tasks include identifying activities on a weekly basis, responding to communications, summarising discussions and grading assessments. Face-to-face activities include hosting group and individual sessions, holding inductions and counselling students.

Ideally, the face-to-face and online activity should complement and support each other. Otherwise the learning experience can be fragmented.

It is the tutor’s role to guide the student through the learning experience. This can be a more individual process for an e-learning student. Activity generation is therefore an essential role for the online tutor. Through this facilitation process the student’s learning experience is enriched by undertaking weekly online tasks and face-to-face activities.

Discussion and conclusions
The BA Enterprise course was conceived as an exclusively online programme but evolved due to the nature of the student group into a hybrid blended pedagogy. The prime motivation for this hybrid delivery was the necessity to meet the needs of the student group characterised as a mature adult learner community with minimal IT skills and little prior experience of higher education. The student group were off campus working predominantly from home “fitting” the course around their personal and working lives. The enabling mechanism for the evolution of the ECW pedagogical model was the feedback from key groups such as tutors and students identified within this study.

A conceptual framework illustrating the emergent blended e-learning model is identified within Figure 2. The original online delivery model (see Figure 1) evolved into a blended learning model with a number of support structures. This comprised a principally online learning environment supported by a structured programme of face-to-face meetings. The conceptual framework identifies the bodies involved in the blended learning pedagogy and their interaction. The model differentiates between the virtual and physical environment. The virtual environment describes the online environment comprising communication mechanisms, the VLE and electronic LRC facilities. The communication mechanism identifies the asynchronous and synchronous mechanisms including e-mail, discussion boards and virtual classrooms. Similarly, the VLE identifies the content as comprising the learning and assessment material whilst the electronic LRC included access to e-journals and e-books. These entities all exist in the VLE.

The physical environment identifies all the entities, which exist within the “real world” including the ECW tutors, QAA, ISeLS, students and the LRC. The ISeLS customer service team act as a conduit to student and staff queries or potential
programme applicants. They are contacted via telephone or e-mail and are available on a day, evening and weekend basis. In addition they also liaise with the VLE development team to communicate any inconsistencies or problems with the course material. The existence of this body is as an essential element in a blended learning model to ensure that communication is a two way process and any issues with the VLE or individual students are quickly identified and resolved. The ISELS team meets each student group during a face-to-face induction to explain their roles and duties. The ISELS team work closely with tutors to contact inactive students to encourage participation. The LRC team administers the electronic and physical resources that the ECW students have access to on their learning programme. This includes physical library books that the students keep in their possession for the duration of the academic year and effective access to the electronic resources. The LRC team meets with the student group during induction to introduce their role and provide the physical resources to individual students. The QAA team role is to monitor student activity for research and participation purposes and undertake all course administration. The QAA team regularly interacts with module tutors and the ISELS team in order to disseminate these statistics.

The ECW model of blended e-learning supports and extends the findings of the existing literature. The literature indicates blended learning has its critics although there is a strong body of evidence supporting both theoreticians and practitioners. Moreover, the ECW model supports the e-learning advantages of cost savings and increased flexibility (Williams, 2003; Voci and Young, 2001). An appropriate range and mix of activities has been developed and resourced and the face-to-face element complements and supplements the online activity (Voci and Young, 2001). The face-to-face support is structured to provide initial and ongoing support and guidance as deemed necessary by the individual tutor (Mitchell and Honore, 2007; Baldwin-Evans, 2006; Rossett et al., 2003). The blended e-learning conceptual framework has identified a number of critical activities. An initial face-to-face induction to familiarise students with the VLE and course requirements was identified by the course team as essential. The face-to-face induction also has great value in creating a group and community spirit. The end result of this process should be that the students leave this experience confident and competent to operate within the online environment.

The second critical issue is communication. Effective communication within a blended learning pedagogy is essential for effective learning (Rossett et al., 2003). Students and the ECW team are aware of communication channels via ISELS and tutors to solve technical issues and answer queries. Within ECW, this would include telephone and e-mail communication from tutors and students as verified by Mason (2002) and Baldwin-Evans (2006). The third issue involves ensuring a structured programme of events per module, for which the student is made aware and given appropriate notice. These events must be appropriate and meet the needs of the student as identified by Frank et al. (2002). For example, they could involve training in the use of the VLE at the initiation of the course and thereafter teaching in module content and preparation for module assessment. They should also be timetabled at appropriate needs to suit the demands of the client group (e.g. weeknights and weekends). The fourth issue is ensuring the blended learning system has access to help desk facilities to support tutors and students and act as a link with the VLE development team. The
The final critical issue is to ensure that tutors have sufficient time to undertake their role effectively. The ECW model allows four hours for moderation and two for administration per week over a nine-week block delivery timescale. It was apparent that students could not “multi task” between several modules preferring to concentrate on one or two modules at one time.

Implications for policy makers

The ECW blended e-learning pedagogy can be classified as a development strategy as recognised by Rabideau (2003). Unquestionably, as tutors become familiar with the learning environment and as the VLE technology develops there should be less necessity for blended delivery pedagogy. Such a move would obviously be of benefit to enterprise students where time and cost are at a premium given the demands of running a small business. For example, if there is increased development in the synchronous communication mechanisms available in VLEs these would lessen the necessity for face-to-face provision. Furthermore, it should be noted that blended e-learning pedagogies do not easily support national and international student markets and could be seen as a deterrent to growth. However, in the mean time it is critical that e-learning courses develop working and effective blended learning strategies that support the student through the forthcoming experience. However, to strike a note of caution, in the authors’ experiences it must be noted that there cannot be a generic model for blended e-learning as there are far too many variables. The ECW BA Enterprise model is specific to the programme and meets the requirements of the learning group and the VLE. If a provider is in the process of developing their strategy it is dependent on the proposed pedagogy and learning needs of their student cohort.

The effective use of blended learning is critical to the successful development of e-learning in the next few years. Until e-learning providers fully understand the concept or benefits associated with a blended pedagogy they are unlikely to fully embrace it within their structures. Similarly, the efficient use of blended learning for enterprise education is critical to the likely effectiveness of the course. Factors such as course flexibility are essential to support the needs of the entrepreneur. Therefore, it is essential that e-learning providers share their experiences and frameworks to identify pragmatic and scalable solutions to pedagogical provision. In summary, this paper presents the critical issues in building a workable and manageable blended e-learning pedagogy for an emerging online programme. This study contributes to the limited literature in this field (Singh and Reed, 2001) and could be utilised as a practical guide in the effective management of pedagogical issues associated with enterprise education via e-learning. This study reduces the ambiguity regarding blended learning identified within Kerres and De Witt’s (2003) study and recognises the importance of providing a balanced provision (Williams, 2003) that is acceptable to the student group.

References


Further reading


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