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Use of blended learning to enhance the student learning experience and engagement in property education

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Abstract

Purpose – This paper aims to report the detailed findings of a Centre for Education in the Built Environment (CEBE) funded study into good practice in the use of blended learning in property education. “Blended learning” is a combination of face-to-face learning experiences and online learning experiences which aim to complement each other in order to support and enhance student learning. The aim of this paper is to examine the benefits that blended learning provides to students’ learning experience and engagement in property education. It also seeks to discuss lessons learnt from academics who deliver Royal Institution of Chartered Surveyors (RICS) and Chartered Institute of Building (CIOB) accredited property-related courses, in developing blended learning and students’ interaction with the blended learning environment.

Design/methodology/approach – This paper presents the research findings from interviews and questionnaire surveys of RICS and CIOB accredited property-related course providers and the students who currently study these courses. Eight course directors of property-related courses were interviewed and through discussion with the academic interviewees a questionnaire was developed and sent to all RICS and CIOB undergraduate and postgraduate course directors in the UK. The eight interviewed course directors were requested to send out a questionnaire to their students, and 442 completed students’ questionnaires were returned. Further telephone interviews with seven students were conducted. The interviews were recorded, transcribed and coded to identify similar themes. The frequency of the answer in the questionnaire and comments from interviewees is presented.

Findings – Both academics and students find that blended learning gives greater flexibility for student learning in terms of learning style and study pace. With the adoption of a wide range of delivery methods, blended learning can successfully improve students’ experience and enhance their engagement. It is also important to ensure that blended learning is really “blended” and includes a good mix of delivery methods. “Face-to-face interaction” with students is important as students require reassurance and on-going support from lecturers. Providing training for students to use specialist software in order to equip them to fully utilise blended learning is also essential. Finally, allocation of sufficient time and resources for the development and maintenance of blended learning programmes is also key to its success.

Originality/value – This paper is the first to investigate the lessons learnt from academics in developing blended learning and also students’ interaction with the blended learning environment in property-related courses in the UK. Property-related course providers can use the results of this study to inform the design of blended learning in their programme in order to enhance students’ learning experience and engagement.

Keywords Blended learning, Professional accredited courses, Property education, Learning, Learning styles, Learning methods, Property management

Paper type Research paper

1. Introduction

Student engagement has become an important topic in academic literature since the mid-1990s (Trowler, 2010). With higher education institutions facing increasingly straitened economic conditions following changes in funding for higher education in England and Wales (Browne, 2010), attracting, retaining, satisfying and developing students and ensuring they graduate to become successful, productive citizens with good career

prospects matters more than ever. Enhancing students' learning experience has attracted policy attention since the early 2000s. This is demonstrated in the vision statement of the Higher Education Academy which was founded in 2004: "Our vision is for students in UK higher education to enjoy the highest quality learning experience in the world" (HEA, 2011).

There is literature discussing the difference in learning styles and their influence on people's learning preference (Biggs and Tang, 2007; Honey and Mumford, 1986). Honey and Mumford (1986) identified that learning styles include activists, reflectors, theorists and pragmatists. Given these different learning styles, there is a need to investigate how teaching and learning approaches enhance students' learning experience, their engagement and ultimately their achievement.

Biggs (1985) represents student learning, in his three-stage model, as an interactive system of presage, process, and product. Defined respectively as the learning environment and students' characteristics; students' approach to learning; and learning outcomes. This model proposes that personal and situational characteristics affect which approach to learning a student might adopt, consequently affecting learning outcomes, and that presage factors, including students' perceptions, cognitive style and previous experience affect learning outcomes directly.

Lizzio et al. (2002, p. 27), following Biggs's work, investigated "the relationship between university students' perceptions of their academic environment, their approaches to study, and academic outcomes [. . .]", and stressed the practical significance of these relationships for educators wishing to understand the impact of course design. They concluded that blended learning, which is a type of situational characteristic, should have an impact on students' perceptions of the learning environment and subsequently their study approach and learning outcomes. It is thus expected there will be a significant, albeit mediated, relationship between blended learning and student achievement.

Blended learning is a widely used teaching and learning approach in property-related courses, e.g. on the MSc in Real Estate Investment and Management offered jointly by Nottingham Trent University and Sheffield Hallam University, and is also taught at locations in Central and Eastern Europe. Blended learning is suitable for property-related courses as it is a useful tool for providing simulated learning experiences to students. There has also been substantial literature to evaluate blended learning from academics or developers' points-of-view. Banks (2001) evaluated the use of blended learning in an MSc module, "Rural Sustainability", at Cardiff University. Banks identified positive and negative aspects of virtual learning environments (VLEs) and critical issues for those considering the use of this approach as part of a lecturing module. Wall and Ahmed (2008) proposed a framework using a blended learning approach for higher education institutions which faced challenges of developing and deploying continuing professional development in the construction industry. Baldwin-Evans (2006), Harris et al. (2009) and Mitchell and Honore (2007) discussed the key factors for successful implementation of blended learning. Garrison and Vaughan (2008) identified the best practice for blended learning implementation in higher education. Please see section 2 for an extensive literature review of blended learning research findings.

These studies contribute greatly to the discussion of blended learning on the development and identification of successful factors for blended learning solely from the point of view of the academics' delivery of their subject. However, there is a lack of research investigating the lessons learnt from academics in developing blended learning and very little research into students' interaction with the blended learning environment. Moreover, there is a lack of a comprehensive research focusing on investigating the use of blended learning in property-related courses.

This paper starts with a discussion of the definition of blended learning and reasons for using blended learning as a teaching method in property-related courses. It identifies successful factors for developing blended learning, students' experience of using blended learning and their perception of it. It also discusses the similarities and differences between academics' and students' views of using blended learning to enhance students' learning experience, engagement and satisfaction. These discussions form the basis of recommendations for the development of learning and teaching practices and approaches which will enhance students' learning experience and engagement. Finally, the suggested areas for future research were also mentioned.

2. Blended learning

2.1 Definition of blended learning

There has been much discussion over the term "blended learning" in recent years and the general consensus is that blended learning is a combination of face-to-face learning experiences, such as on-campus classroom contact, and online learning experiences. Singh (2003) describes blended learning as a combination of delivery

methods which complement each other and work to support student learning, while Driscoll (2002) states four different ways in which blended learning can be defined. She describes blended learning as:

- . a mixing of various web-based technologies;
- . a mixing of pedagogical approaches (e.g. constructivism, behaviourism);
- . a combining of instructional technology with face-to-face teaching; and
- . a combining of instructional technology with on-the-job tasks.

Collins and Blake (2007) echo Driscoll's (2002) view, and discuss how blended learning may mean different things to different people. They state that by definition, "blended" learning includes many different learning approaches, though perhaps it would appear to be more concerned with individual differences and incorporating both formal and informal learning, than with the face-to-face/online learning dichotomy that is often focussed on (Collins and Blake, 2007).

Slovan (2007) also argues that blended learning should not simply be considered in terms of delivery and technology. He comments that:

If the term blended learning is to have longevity in our trainer vocabulary we must extend its use beyond technology. It must be as much about varying learning methodology as it is about training delivery. We must understand more about what motivates learners, what support they need and how these supportive interventions can take place in practice. Only with this understanding can we get the "blend" right (Slovan, 2007, p. 315).

2.2 Advantages of using blended learning

There are several advantages of using blended learning. Garrison and Kanuka (2004) explored some of the advantages of using blended learning in higher education institutions. They describe how blended learning has transformative potential, offering institutions the opportunity to embrace technology, encourage a community of inquiry, and support active and meaningful learning. Twigg (2003a) reports that a course redesign programme resulted in improvements in learning outcomes, including higher grades, greater content knowledge and greater understanding of course concepts. Both staff and students also reported that the online components of blended learning encouraged the development of critical thinking skills (*ibid.*). Student satisfaction has also been reported to be higher in blended learning courses compared with purely face-to-face courses (Dziuban et al., 2006; Owston et al., 2006; Twigg, 2003a), and withdrawal levels have been shown to be lower (Dziuban et al., 2006; Twigg, 2003b; Wall and Ahmed, 2008).

Another advantage of blended learning is the increased flexibility of access to learning, which can be attributed to the inclusion of online components. Often, blended learning modules have a combination of face-to-face and online components. This format allows learners who live some distance from the university to enrol in a programme. The online component may also benefit other learners, allowing them to work whenever and wherever they prefer, and access the internet without making the journey to campus, or catch up on the course if and when they are unable to make journey to the campus due to sickness or other commitments (Owston et al., 2006).

Cost and resource effectiveness is also considered an advantage of blended learning (Twigg, 2003b). Costs for the institutions are reduced as the developed materials can be placed online and re-used for an extended period of time. Furthermore, the size of the cohort can be increased and the number of classes decreased. The use of blended learning can reduce the staff and student classroom contact time and consequently save on staffing costs. Though cost savings should clearly be considered a valid benefit of blended learning, many authors writing on this topic maintain that "cost saving" should not be considered as the primary purpose for blended learning adoption, and that improved learning outcomes should still be the main rationale for implementation (Mitchell and Honore, 2007; Trasler, 2002).

2.3 Requirements for successful blended learning

There is a range of issues that arise with the implementation of blended learning and a number of support resources are required for its success. The first is that of skills training. Learners must be trained or equipped to navigate the information technology used in blended learning and facilitators must be taught to use the technology from the user-end, in order to facilitate delivery (Beadle and Scanty, 2008; Harris et al., 2009). Another key requirement for successful blended learning is the allocation of dedicated services to support and assist learners and facilitators throughout the development and use of modules, including spending resources on communication to encourage instructors and prospective end-users to become actively involved and fully

aware of blended learning initiatives (Garrison and Kanuka, 2004; Harris et al., 2009). The emphasis of this communication should focus on the learning and the associated outcomes rather than on the use of technology only.

There are also technological requirements that must be met for blended learning to be successful. Stewart (2002) suggests that course content and learning approaches be evaluated for accessibility, with consideration of bandwidth, firewalls and connection speed, while Childs et al. (2005) suggest that easy and regular access to technology for both facilitators and learners is a necessary prerequisite for successful delivery of e-learning. Although technology is important for blended learning implementation, reference should be made back to Sloman's (2007) comment that the emphasis should be shifted from a purely technological focus, more towards teaching and learning methods and styles. Technology should be considered merely as a means to facilitate students' learning.

The last and possibly the most important requirement that must be discussed relates to human factors. Consideration of learners' needs and management of their expectations and level of understanding are important for the development and implementation of successful blended learning modules (Bliuc et al., 2007; Harris et al., 2009; Mitchell and Honore, 2007). Evidence from literature also suggests that it is important to take account of learners' motivation (Stewart, 2002) and ensure learner readiness (Baldwin-Evans, 2006). Mitchell and Honore (2007) see the attitude and motivation of learners as particularly significant when virtual learning (e-learning) is involved, as they affect acceptance and participation. Blended learning can only be successfully implemented if the learners have sufficient knowledge of, and are ready to use, the newly introduced technology.

3. Aim of this paper

The aim of this paper is to examine how and to what extent blended learning enhances students' learning experience and engagement in property education, and particularly focuses on Royal Institution of Chartered Surveyors (RICS) and Chartered Institute of Building (CIOB) accredited undergraduate and taught postgraduate programmes. The reason for focusing on these two institutions is that they are the key providers of property-related degree courses in the UK. This paper also highlights the successful factors for developing blended learning teaching methods. In addition, and allied to this, it also explores experience and perception of blended learning from students who study property-related courses.

4. Research methodology

The mixed method approach adopted for this study has involved data collection by interviews and questionnaire surveys with the course directors and the students of property-related courses in the UK. The research was conducted in April 2010 to October 2010. The use of a triangulation research approach aims to ensure reliability and validity exist throughout the research. The respondents for both staff and student questionnaire surveys and interviews are drawn from the same population and the data collection was conducted within a close period of time, therefore, only certain types of test such as parallel-forms reliability and construct validity were able to be used in this research (Fellows and Liu, 2008; Flick, 2011).

4.1 Data collection from academics

4.1.1 Interviews with course directors of property-related courses. The first stage of data collection from academics was achieved by interview with RICS and CIOB accredited property courses providers. The academic interview questions were adapted from the staff interview questions shown in Appendix 6 of Garrison and Vaughan's (2008) book. The author amended the interview questions and also consulted other property academics to ensure the interview questions were suitable for use in property education research. Eight course directors of RICS and CIOB accredited courses from four universities were interviewed. These universities were chosen because they each have a reputation for successful implementation and use of blended learning, and it was expected that good practice procedures and insight would be gained from conversations with the relevant course directors from these institutions. These interviewees will be identified as academic interviewee 1 to 8 and universities will be quoted as university A, B, C, and D[1] in this paper. Interviews were semi-structured in nature, and took place in the interviewees' offices. The interviews lasted from 45 to 90 minutes. Interviews began with the collection of professional background information and continued on to a series of key questions. Questions were divided into four sections: knowledge and experience of blended learning, design and use of blended learning, resources needed for blended learning and evaluation of the use of blended learning. Finally, interviewees were given the opportunity to add further comments. The interviews were recorded, transcribed and coded and similar themes identified.

All interviewees have substantial experience teaching in higher education. Their years of experience range from 15 to 32 years, with an average of 24 years. All were practitioners prior to joining the higher education sector, and at the time of interviewing all were teaching both undergraduate and postgraduate courses. Some interviewees were also teaching distance learning programmes. Interviewees' backgrounds were quite diverse, as were the subjects they were teaching, which ranged from property investment, property valuation, property management, and corporate real-estate investment, environmental management and construction project management.

4.1.2 Questionnaire survey with course directors of property-related courses. The second stage of data collection with academics was by questionnaire survey. A questionnaire was developed based on the interview discussion with the course directors of property-related courses. The questionnaire was sent to five property education professionals for comments and their comments were acted on prior to conducting the major survey. The questionnaire was constructed using SurveyMonkey (n.d.), an online survey tool that allows for easy online survey distribution. This questionnaire was sent to all course leaders of RICS and CIOB accredited undergraduate and taught postgraduate courses in the UK. The list of RICS and CIOB accredited courses are available from the RICS and CIOB websites (CIOB, 2011; RICS, 2011). The e-mail address of all course directors of the RICS and CIOB courses were identified through web searches of relevant university websites. A total of 184 questionnaires were sent out. A total of 38 questionnaires were returned and 37 of them were completed, giving a response rate of 20 per cent.

The first section of the academic questionnaire asked for background information of respondents, the second section asked about their definition of blended learning, the third section asked the reasons they use blended learning as a teaching method, the fourth section asked what type of virtual learning environment they used to support blended learning, the fifth section asked about their design of blended learning courses/modules, the sixth section asked what resources they thought they needed for the successful use of blended learning as a teaching method and the final section asked what help students usually need in terms of dealing with web technology. Please see the Appendix for the academic questionnaire. The frequency of the answers was recorded to support the discussion in the research findings section.

Out of the 37 academic respondents, 54 per cent of them teach both RICS and CIOB accredited property related courses, 73 per cent teach both undergraduate and postgraduate programmes, 38 per cent have less than five years' teaching experience and 59 per cent has five to eight years experience of using blended learning (please see Tables I-IV).

4.2 Data collection from students

The interviewed academics were requested to send an invitation to complete the on-line questionnaire to their students to collect their views on blended learning. A total of 442 completed student questionnaires were returned.

Table I. What courses are you teaching?

	Number of respondents	Percentage
RICS accredited course only	16	43
CIOB accredited courses only	1	3
Both RICS and CIOB accredited courses	20	54

Table II. What level do you teach?

	Number of respondents	Percentage
UG programmes only	5	14
PG programmes only	5	14
Both UG and PG programmes	27	72

Table III. How long have you been teaching these courses?

	Number of respondents	Percentage
Less than 5 years	14	38
6-10 years	10	27
11-15 years	6	16
16-20 years	5	14
More than 20 years	2	5

Table IV. Experience using blended learning as a teaching method

	Number of respondents	Percentage
Never	2	5
1-5 years	22	59
6-10 years	8	22
More than 10 years	5	14

A total of 31 per cent of respondents are undergraduate year one students, 22, 18, 12, and 17 per cent are undergraduate years two, three, four and postgraduate students respectively. The distribution pattern of respondents is caused by a larger student population for undergraduates than postgraduate. It may also be due to the academics having had more contact with undergraduate students. Around 290 respondents (66 per cent) are full-time students with the dominant age group of the respondents (61 per cent) being 18-25 years old. Only 25 per cent of students were in the 26-35 years old group and 14 per cent were in the over 35 years old age group (see Figures 1-3). The reason for choosing this age group classification is to follow Garrison and Vaughan's (2008) classification as the student questionnaire was adapted from this book.

The student questionnaire was adapted from the student survey questionnaire shown in Appendix 5 of Garrison and Vaughan's (2008) book constructed using SurveyMonkey (n.d.). As with the development of the interview questions for academics, the author has amended the wording of the questionnaire and made it more suitable for property education. In addition, the questionnaire was sent to ten students from property courses for comments in order to ensure the questionnaire was clear and easy to understand before being widely distributed to other students. The questions began with the collection of background information, such as year of study, mode of study and age. The key questions were divided into four sections. The first section queried students' experience of blended learning. The second section looked at students' overall satisfaction of blended learning. The third section asked the students to comment on blended learning. The last section asked students to compare blended learning with face-to-face learning. The students were asked whether they were willing to participate further in this research. As before, the frequency of the answer for the student questionnaire was recorded to support the discussion in the research findings section. Please see the Appendix for the student questionnaire.

Seven student respondents agreed to participate in further interviews. Four out of the seven students are from university C and the other three are from university D. Five interviewed students are 26-35 years old, one is over 35 years old and one is 18-25 years old.

Figure 1. Students by year of study

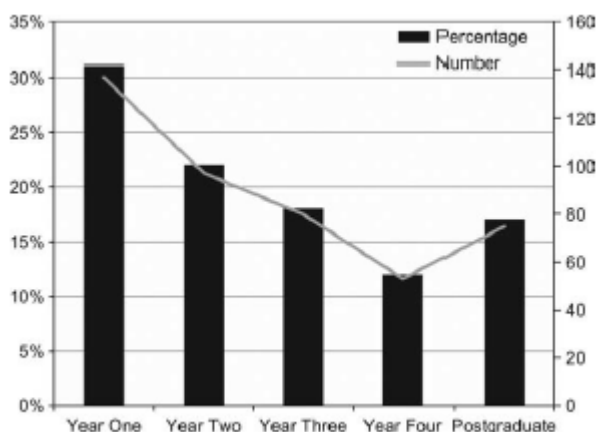


Figure 2. Student by attendance mode status

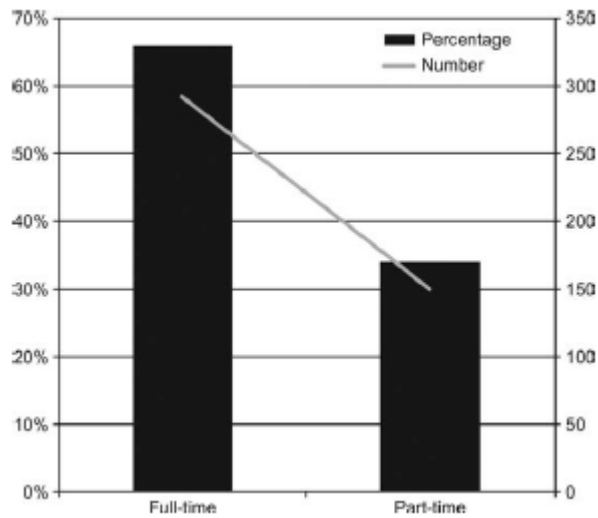
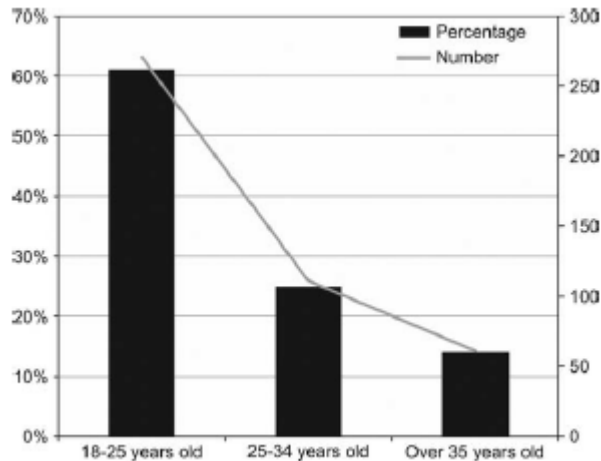


Figure 3. Students by age group



Five of them are part-time students and two are full-time. Four of them are second-year students; two are first-year students and one is a postgraduate student.

The purpose of this interview was to find out more about students' experience of blended learning and the questions were developed from the student questionnaire.

The student interviewees' comments were used to support the discussion in the research findings section. The interview questions were as follows:

- (1) In your opinion, what is blended learning?
- (2) What is your experience of using blended learning?
- (3) Have you enjoyed your experiences with blended learning? In what ways?
- (4) Do you think the use of blended learning has helped or hindered your studies? And how?
- (5) What do you think are the advantages of using blended learning as a teaching method?
- (6) What do you think are the disadvantages of using blended learning as a teaching method?
- (7) In your opinion, what areas of blended learning could be improved?
- (8) How could blended learning be used further to improve your courses?
- (9) In your opinion, do you think blended learning could totally replace "face-to-face" interactions? Why, or why not?

4.3 Limitations of research methodology

The first limitation of the research methodology is that a restricted number of reliability and validity tests can be done. As mentioned in section 4, only parallel-forms reliability and construct validity can be used to evaluate the consistency and accuracy of the results for this research.

The second limitation is the “sample size”. In terms of academic respondents, there were only eight interviewees from four universities and 37 completed questionnaires out of 184 distributed questionnaires. Although the response rate (20 per cent) for questionnaire survey is acceptable, the actual number is relatively small which may limit in the generalizability of this research. The generalizability issue is more serious when studying the students’ view of blended learning. Although there are 442 completed student questionnaires were returned, they all study within four universities.

5. Research findings

5.1 Definition of blended learning

The academic interviewees supported a similar definition of blended learning. Almost all interviewees described blended learning as involving a range of teaching methods and platforms which usually use technology to support delivery. It was also described as a more independent approach to learning, allowing students to do most of the learning on their own. Lecturers give guidance to students at the beginning and let them learn independently at their own pace and through discussion among peers. It shows that the academic interviewees have a shared definition of blended learning with the literature (Driscoll, 2002; Singh, 2003), which is “the use of multiple strategies to teach and encourage students to lead their own learning”. Interviewee 3, who is the joint programme leader for a RICS accredited Central and European course summarised blended learning as “a mixture of teaching approaches used to assist students in their learning ability”. The academic definition of blended learning is further reinforced by the academic questionnaire result. Sixty per cent of academic questionnaire respondents agreed blended learning “allows students to learn at their own pace”, about 90 per cent of respondents agree or strongly agree blended learning is about using a wide range of teaching methods. The commonly used teaching methods in property-related courses are case study and practice based site-visits, aiming to give simulated learning experience to students which are important for vocational courses. The student interviewees also shared a similar definition of blended learning, they commented that blended learning is the use of a mixed set of delivery methods to reach the same outcomes, it encourages deeper learning and students have the opportunity to learn at their own pace and conduct further exploration.

5.2 Reasons for use of blended learning in property-related courses

The major reason for using blended learning is to enhance students’ engagement and students’ learning experience, nearly 90 per cent of academic respondents for the questionnaire agreed or strongly agreed on this point. The academic interviewees also made the same comment. They think blended learning creates opportunities for students to enhance their understanding through their own exploration and research of certain issues and topics. In other words, it enhances the students’ sense of ownership of their learning, which motivates them to learn and engage better.

The academic interviewees discussed various reasons for using blended learning. Some use it out of necessity as it is the most suitable method for the nature of their course. Interviewee 3 uses blended learning, primarily, because his course was offered to students in Central and Eastern Europe. These courses were delivered in “block classes”, with the only classroom contact with lecturers occurring on five weekends spread over two years. The teaching materials, therefore, needed to be available on-line, and the lecturers must communicate with students over the internet. These courses, by design, use blended learning extensively, and would not be possible without many of the blended learning techniques that have been adopted. Interviewee 3 is responsible for year 1 property valuation which he teaches in a step-by-step fashion because the concept of valuation is difficult to grasp for some students who are new to this subject. Interviewee 4 also added that students have diverse backgrounds, numerous commitments and varying needs, which add to the difficulties lecturers experience while teaching these modules. He commented that the use of blended learning allows the use of multiple teaching approaches which permit students to complete exercises and focus on case studies. He can also take the students to visit actual projects in order to obtain some real-life valuation experience. The use of simulated work experience as a teaching method is particularly important for property-related courses which are vocational in nature and where students require hands-on experience.

5.3 Successful factors for using blended learning in property education

5.3.1 Design of blended learning. Consideration of appropriate design methodology is important for successful blended learning. The design should aid teaching and make delivery new and innovative, subsequently enhancing students' learning experiences and outcomes.

Academic interviewee 5 used blackboard as a method for delivering blended learning. Blackboard is the most popular virtual blended environment for property education. A total of 61 per cent of respondents to the academics' questionnaire survey said they use it in their universities. Academic interviewee 5 used this tool to create working groups for students, and divided the module into six themes, allocating each theme to a group of students. The groups then researched the theme in detail and created a poster, this gave students the opportunity to work together with others prior to the first class. At the first class meeting, students presented their designed posters with their group to the whole class. In this way students develop deep understanding of one of the themes, yet also gain general knowledge of the other five themes. Academic interviewee 5 feels that this gives students ownership of the module, allows it to be more student-led, and enhances student engagement and interaction. This comment is supported by Garrison and Vaughan's (2008) research, which highlighted that enhancing students learning experience and engagement is one of the fundamental benefits of blended learning.

Academic interviewee 5 particularly appreciates the importance of their team work approach, commenting that it worked very well for the students' poster exhibition, which is the major assessment element of the relevant module, and gave students an opportunity to form partnerships and gain ownership of the module. Mitchell and Honore (2007) share this view and comment that group dynamics play an important role in achieving learning outcomes and increasing participant motivation. On the other hand, Bliuc et al. (2007) suggested that research on blended learning needs to pay careful attention to issues of integration, and should focus on achieving an improved working knowledge of how to aid students with the integration of a variety of learning experiences. In other words, enhancing students' learning experience is an important concern when using blended learning as a teaching method.

Academic interviewees 6 and 7 (both from university C) also have innovative ways in which they have designed their blended learning modules. They have used "expert interview" and "question time" style discussions as teaching methods. "Expert interview" involves the lecturer interviewing a practitioner such as a chief executive officer of a large construction company or a head of property for a local government department. The academic is the interviewer. The academic asks questions of the interviewees on a chosen topic in order to capture their expert knowledge and practical experience. The "question time" teaching method adopts a similar style to the television programme. Groups of four to five high profile practitioners (e.g. head of property of a county council or head of property for a major UK supermarket) are invited to the university. They sit on a stage and answer questions while another group of practitioners act as the audience and ask the "on-stage" group questions. These interviews and discussions are recorded and played back to students as part of the teaching materials. These teaching methods enhance students' exposure to practical experience and make them more work ready and employable by providing them with access to the knowledge and experience of practitioners. This access to practical knowledge is very important for vocational courses such as those that are RICS or CIOB accredited.

5.3.2 Resources needed for successful blended learning development. Many of the Academic Interviewees commented that while blended learning requires a lot of upfront resources for initial development including financial resources, time and effort. Resources are also needed throughout the duration of the module in order to maintain a high standard of delivery.

One of the most mentioned resources needed for blended learning was information technology (IT). This included a university virtual learning environment (VLE) platform, staff that are IT literate and appropriate equipment, such as high specification computers, software, scanners, cameras and recorders. More than 80 per cent of those who responded to the academic questionnaire agree or strongly agree that school-based or university-based support is essential for using blended learning as a teaching method. Human resources may also be considered particularly important when it comes to blended learning implementation, development and maintenance. Seventy-nine per cent of respondents to the academic survey strongly agreed "staff time" is the most essential resource for blended learning development. Mitchell and Honore (2007) describe the investment in human resources needed to create and maintain virtual learning modules as considerable. Interviewees explained that the human resource required included technical support (in terms of "trouble-shooting advice" on the use of VLE platforms), administrative support, technicians and learning technologists. In addition, the interviewees also like to see some developed previously successful blended learning modules as a demonstration example so they can learn from these examples. Staff who have academic backgrounds, and who also have sound technical backgrounds, become very valuable when

developing blended learning modules or programmes. They can help staff to develop on-line materials and also have the intellectual capacity to challenge the content of the teaching materials. These individuals, however, can be difficult to acquire because of financial constraints. Mitchell and Honore (2007) comment that there is a competing demand for scarce resources and they note the negative effect that a lack of resources can have on blended learning outcomes.

Academic Interviewees commented on the training that is needed for colleagues who are new to blended learning. They consider IT training to be of high importance, though Interviewee 4 commented that perhaps the best way to gain IT knowledge is through hands-on experience. Workshops on the use of relevant software and VLE platforms were also considered useful.

Academic Interviewees also thought it is important that technological training be offered to students on the use of VLE platforms. They think it is essential that students have a sufficient level of IT literacy in order to ensure they can fully appreciate the use of the technology. The speed of Internet connection was also considered an important technological issue, though interviewees commented on the wide availability of broadband, which reduces problems of downloading and surfing, which exist when dial-up internet services are used.

5.3.3 Support for students using blended learning. The academic interviewees pointed out that support for students using blended learning as a learning tool is required. There is a general impression that today's students are all IT-literate as they have grown up during a time when computer and internet access are widely available.

Interviewees commented that students are competent on the usual IT operations, such as surfing the Internet, but they need further support with specialist software and operations to access blended learning materials.

The respondents to the academic questionnaire survey commented that the most useful type of support for students in terms of dealing with web technology is study skills workshops. A total of 42 per cent of respondents commented that it is the most useful method of helping students to become familiar with blended learning techniques. This method not only teaches students the technical aspect of using blended learning but also the generic learning skills. As mentioned by Sloman (2007) blended learning is not just about having a technology focus but it is also about teaching, learning methods and style while "technology" is a tool to underpin the successful delivery of learning.

5.4 Students' experience of using blended learning

More than half of student respondents to the questionnaire (58 per cent) did not have previous experience of using blended learning. For those who have experience of using blended learning, they mainly gained it through previous study in colleges, schools or the Open University.

A total of 72 per cent of student respondents think they have sufficient training and guidance in the use of blended learning methods. In contrast, the majority of respondents (more than 50 per cent) are not sure whether blended learning teaching methods were sufficiently explained in module handbooks. This is possibly due to students not even being made aware that they are taught by blended learning as the tutors did not explicitly mention it. In terms of support for using blended learning, student respondents expressed the need to receive clear guidance and demonstration of how to use the online learning resources. This echoed the comments in the literature on the importance of skills training in order to experience successful use of blended learning (Beadle and Scanty, 2008; Harris et al., 2009). It also reinforced the academics' comments on the need to provide more support to students.

The students who have difficulty attending campus, such as part-time students and disabled students, particularly welcomed the use of blended learning. One interviewed student commented:

Blended learning is good for me. Due to my disability, I need to be in and out of hospital and absent from a lot of classes. The use of blended learning gives me opportunity to catch things online so I am not behind with my study.

The other advantage mentioned by students is that "it facilitates group work as it makes communication with group mates easier".

The respondents are generally satisfied with blended learning. More than fifty per cent of student questionnaire respondents agree that they would take other blended learning modules in the future and admitted they are satisfied with the use of blended learning as a teaching method. The interviewed students commented that they generally enjoy the experience of being taught by a blended learning method because

they can manage their own learning experience and learning pace. Also, they will never lose anything as everything is stored on the Internet. It can also help them with revision.

5.5 Students' perception of the benefits of blended learning. Students perceive blended learning as a method which allowed them to study at their own pace, in their own time and encourage them to become more independent in their learning. This was reflected in their comments on rating the advantages of blended learning in the questionnaire. The top three advantages of blended learning as chosen by students are:

- .convenience of not having to come to campus as often;
- .flexibility of being able to complete assignments any place/any time; and
- .ability to work around job responsibilities and other commitments that can make it difficult to attend regular face-to-face classes.

On the other hand, the students identified the least effective aspect of blended learning in that it creates a "loss of instant interaction with lecturers and students. As blended learning involves delivery of materials online, it will reduce the face-to-face interaction between students and tutors and it may make personal communication more difficult". Students suggested using instant messaging services and social networking software such as Google Wave to maintain instant interaction with tutors. The students' other concern of using blended learning as a delivery method is that tutors may not be able to fully monitor students' learning. One interviewed student commented:

Students may lose their direction and not know whether they are on the right path as they are not able to receive face-to-face guidance and advice from tutors. Also, the tutors may assume students read on-line materials which may not always be the case. The whole idea of blended learning is to put more autonomy and responsibility to students. It could be good for some student but it could be bad for less motivated students. The lazy student will be more behind with their study.

The student interviewees shared the same view that blended learning with an IT focus cannot replace face-to-face interaction. They commented that students still very much rely on the benefit of having interaction with lecturers and other students and they still value the possibility of obtaining experience and words of wisdom from lecturers.

Regarding the comparison of blended learning with face-to-face learning, the majority of respondents (42 per cent) commented that the quality of feedback from blended learning courses is not different from traditional classroom teaching. The majority of student questionnaire respondents (53 per cent) do not see any difference in the amount and quality of interaction among students and between students and staff when comparing blended learning with face-to-face teaching. On the other hand, the majority of students (68 per cent of respondents) commented that there is a relationship between on-line and in-class learning, the students commented that they enhance each other and they are relevant to each other. This is an encouraging comment as students recognize the benefits of using blended learning.

The significance of successful blended learning is that it maintains the communication between staff and students. This differs from e-learning which aims to deliver the teaching purely online, blended learning is a mix of teaching and learning methods. Therefore, it is important to maintain the personal interaction between tutors and students. Also, as mentioned by Academic Interviewees, and commented in student questionnaire surveys, the students value personal interaction and reassurance from the tutors.

5.6 Similarities and differences between academics' and students' views on blended learning

The first common view between academics and students is that blended learning provides flexibility for students, allows students to have deep learning, enhances the learning experience and encourages engagement. Both groups found the use of a broad range of teaching methods assists students' learning. Students with different learning paces and styles benefit from using various learning methods in order to maximize their learning ability and potential. The academics and students of property-related courses who participated in this research shared the same views as Garrison and Kanuka (2004) and Owston et al. (2006) that "blended learning encourages flexibility". They also think blended learning is a good delivery method, particularly for students who have difficulties travelling to campus such as disabled students and part-time students.

The major difference of view between academics and students is on "the need and advantages of including online delivery in blended learning teaching". The academics fundamentally agree the necessity of including online delivery in blended learning. The use of online delivery is the core characteristic of blended learning and

as mentioned in the previous sections (see sections 2.1 and 2.1), it is the fundamental requirement for certain courses such as distance learning courses. It is also a major characteristic of “blended learning” as the word “blended” refers to the use of multiple delivery methods, including face-to-face and online delivery. Online delivery offers greater convenience for students who have difficulty travelling to campus and as discussed in section 5.5. However, some responding students expressed that they were keen to retain face-to-face contact with lecturers. They commented that the online delivery led to less interaction or a lack of direct communication with tutors. In other words, the students prefer the more traditional delivery methods such as classroom contact and potentially denied the advantages of using online delivery. However, it is important to note that a lot of responded students acknowledged the advantage of online delivery and the convenience which it brings, such as not having to come to campus as often and having greater flexibility on learning (see section 5.5). In other words, the students appreciate the convenience from online delivery but, at the same time, they do not want to lose direct communication with their tutors.

6. Conclusion

This paper discusses the use of blended learning as an approach to enhance students’ learning experiences and engagement in property education. It discusses the academics’ views on advantages of using blended learning for enhancing students’ learning experience and engagement. It also discussed the factors for successful blended learning development. Furthermore, it discussed students’ perception of blended learning.

Blended learning provides greater flexibility of learning for students and enhances student learning experience, in turn, this improves student achievement. Blended learning is particularly useful for property education as it provides a useful platform for simulated learning experience which is vital for this type of vocational course.

Blended learning enhances the student learning experience by creating opportunities for students to improve their understanding through their own exploration and research of certain issues and topics. It encourages student-led learning and allows student to learn at their own pace, which was reiterated in the interviewees’ definition of blended learning.

Blended learning cannot totally replace face-to-face contact with students as students require re-assurance and on-going support from lecturers. Students who responded to this survey and the interviewed students voiced this opinion strongly. The successful examples of blended learning ensure a good mix of teaching methods which are able to suit the needs of different learning styles and different learning preferences. In order to have successful development in blended learning, universities must be prepared to invest time and other resources to develop and maintain a successful blended learning environment. In addition, a substantial time commitment is also needed at the start-up phase and continued maintenance throughout. Although technology is an important aspect, the most important element for successful development of blended learning is the understanding of the learners’ preferred learning method and the type of support that they require.

In terms of recommendations to colleagues who intend to use blended learning in the future, it is suggested that the teaching style should be kept simple but interesting; in order to keep students engaged. Different modules and courses require different forms of blended learning to suit the needs of the course, content, and students’ needs; therefore, having a flexible approach is important. It is important for academics to give more thought to the design of blended learning and make it easily accessible to students. As for property education, the inclusion of simulated learning such as case study, site visit and lectures from practitioners is vital. The use of technology as a delivery aid was also suggested. It is important to make sure blended learning is really “blended” rather than just using VLE as a platform to pass on information. It must also attempt to understand how students access and use materials and resources in order to design a blended learning module that matches students’ preferences and expectations. In addition, it is important to provide sufficient training in the development and use of blended learning to both academics and students.

As for institutions which intend to develop blended learning, they must be realistic about the investment of time, effort and resources that are required in both the developmental and implementation phases. The resources required are not restricted to the acquisition of equipment and technology but also require human resources which are used in developing and managing an effective blended learning environment.

7. Suggestions for future research

The first suggestion for future research would be to conduct this research again in several years’ time and see whether there has been any change on academic and student views on the impact of blended learning on

student learning experience and engagement. The UK higher education sector is experiencing a challenging time because of the changes in funding for Higher Education in England and Wales (Browne, 2010) and applicants for university courses are likely to commit to paying up to £9,000 per year to study a course. Therefore, it is important to investigate whether these external changes impact on academics and students' view of blended learning. Also, it may identify any changes to teaching methods required in order to fulfil the possible changed expectations as a result of the fee increase. In addition, conducting the same research again in a few years' time would also test the external reliability of this research.

A second suggested area for future research is to adopt the same research methodology and conduct research for property education courses in other countries and compare these findings with this UK-focused study. Finally, the same research could be conducted in other subject areas and the results compared with the findings of this property education research. As subject nature would dictate how a course is delivered, it is expected there will be some differences on the academics and students view of blended learning between different subject areas.

Note

1. Interviewees 1, 2 and 3 are from university A. Interviewees 4 and 5 are from university B.
2. Interviewees 6 and 7 are from university C and interviewee 8 is from university D.

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