Facilitating the Development of Study Skills through a Blended Learning Approach

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Abstract

This study examined the effectiveness of a Blended Learning (BL) environment designed to facilitate the learning of study skills with a large (over 200) and diverse undergraduate student cohort in a Higher Education (HE) institution in the UK. A BL environment was designed using the model provided by Kerres & De Witt (2003), and was also designed to be consistent with Kolb's (1984) experiential learning cycle. Eight focus groups with six students were undertaken to examine student perceptions of their learning experience, and to establish if learning had taken place in each phase of Kolb's (1984) cycle. All students also completed a reflective study skills essay, and a sample of these were scrutinised for evidence of certain aspects of experiential learning. Student engagement in the module and the BL environment was examined through small group tutorials. The results suggest that the module encouraged a high level of student engagement, and learning in each stage of Kolb's (1984) experiential learning cycle, and that the use of a BL environment facilitated aspects of this experiential learning. Teachers in HE should therefore consider the potential benefits of a blended learning approach as a means of facilitating the experiential learning of study skills.

Keywords: Blended learning, Study skills, Experiential learning

1. Introduction

It is common for many undergraduate courses at Higher Education (HE) institutions in the UK to have large and diverse student cohorts (Lindblom-Ylanne, 2004). Consequently, institutions have been required to find more flexible delivery models to provide all students with quality learning experiences, although the size and diverse nature of these student cohorts can make it challenging for lecturers to design and deliver an effective learning

experience (De George-Walker & Keeffe, 2010). This is because for any learning environment to be effective, students need to be given both the experience of dealing with academic tasks, as well as feedback on this experience in order to encourage reflection. On the basis of that reflection, they can then develop concepts and strategies to deal with similar tasks more expertly (Wingate, 2006). Providing a learning environment that incorporates these elements may not be easy for lecturers to achieve with large student cohorts, although it has been suggested that learning can be facilitated with large and diverse cohorts by using technology to compliment traditional face-to-face methods (Sharpe et al., 2006; Kerres & De Witt, 2003; Fox & MacKeogh, 2003). This combination of traditional face-to-face delivery with technology-based learning is known as Blended Learning (BL) (Stubbs, Martin, & Endlar, 2006).

In addition to the issue of cohort size, it has also been reported that many students arrive in HE without the skills to study effectively, and may therefore require specific study skills support if they are to achieve and progress (Blythman & Orr, 2002). The provision of study skills support is likely to be perceived by students as more relevant, and engagement may be higher, when students are taught how to study within their own subject area rather than via supplementary study skills courses (Appleton, 2005; Durkin and Main, 2002; Zeegers & Martins, 2001). It would therefore appear that HE institutions in the UK may need to provide study skills support within discipline areas, and that a BL approach may facilitate the experiential learning of study skills with large student cohorts. The aim of this paper is therefore to evaluate the effectiveness of a blended learning approach in facilitating the experiential learning of study skills with a large cohort of undergraduate students in a UK HE institution.

1.1 A blended learning approach

As previously discussed, a BL approach combines face-to-face with technology-based or e-learning methods, which use the internet and a virtual learning environment (VLE) to provide some course content and learning activities. These e-learning methods do not require face-to-face contact between the lecturer and learner, and may therefore be particularly useful with large student cohorts. They can be used to offer extensions to learning activities, provide feedback, prepare students for practical work, and structure out of class time (Sharp, 2006). E-learning methods also allow the learner to access course materials and learning activities at a time and place that is convenient for them, and therefore offers considerable flexibility. This flexibility may be especially important for 'time-poor' students with commitments to part-time work, mature students, and international students, as it allows learning to be blended into students' lives. This may lead to enhanced learning and engagement (De George-Walker & Keeffe, 2010; Sharp, 2006; Jelfs, Nathan & Barrett, 2004; Boyle et al., 2003).

There are certain disadvantages to e-learning in comparison with traditional methods however, such as reductions in the socialisation processes and face-to-face communication both among learners and between lecturers and learners. There may be a lack of the non-verbal and para-verbal information that is present in face-to-face communication, and an overall depersonalisation of the student experience, resulting in an increased drop-out rate (Schweizer, Paechter & Weidenmann, 2003). There is also potential for students to rely too heavily on online resources at the expense of attendance at face-to-face sessions, and this may lead to a reduction in attainment (O'Toole, & Absalom, 2003). In addition, students with certain 'at risk' factors such as dyslexia, or those with weak information communication technology (ICT) skills, may experience additional difficulties with learning as a result of the use of e-learning methods. These students may need additional support for learning how to learn online (Hughes, 2007).

With a BL approach, many of these potential disadvantages of e-learning are off-set by the way in which the approach allows face-to-face contact time to be used. For example, some course content can be delivered via a VLE, and the time spent on the face-to-face delivery of this content can consequently be reduced. This means that a higher percentage of face-to-face contact time can be used to provide student support, feedback and opportunities for dialogue in small groups (Hughes 2007, Sharpe et al., 2006). This shift in the role of the lecturer away from delivery allows more opportunity to support students as individual learners, and this more personal communication can increase students' sense of belonging (Yorke, 2004). It also allows lecturers to better identify student's individual needs and those students who are at risk, with a resultant increase in retention. For example, Hughes (2007) reported that the level of student engagement with regular formative online tasks was a useful mechanism for identifying at risk students. At risk students were then provided with targeted support and approximately two thirds of these students went on to pass the module. Also, Hughes reported an increase in retention from 73-78% on conventionally taught modules to 87-94% on a BL module. It could therefore be argued that the BL approach maybe more effective than face-to-face teaching alone as it provides the benefits of e-learning, such as flexibility for the learner, combined with the benefits of the more personal interactions provided by the face-to-face contact.

1.2 Designing an experiential blended learning environment

One of the criticisms that have been made of a BL approach is that there is often a focus on blended teaching, and

that a shift is needed from lecturer to student, from content to experience, and from technology to pedagogy (Oliver & Trigwell, 2005). A BL environment therefore needs to place an emphasis on the learner and learning. There are many different models for the design of a blended learning environment in the literature, which contain different elements and dimensions (Verkroost, 2008). For the purposes of this study, the model provided by Kerres & De Witt (2003) will be used. This model consists of three components: a content component that makes learning material available to a learner, a communication component that allows interaction between learners or between learners and tutors, and a constructive component that facilitates individual and cooperative learning activities that actively engage students with learning tasks (or assignments) with different degrees of complexity.

Kerres and De Witt (2003) identified that the amount of time that the learners spend on activities related to each component of the BL environment, and the approach used for each component, depends on factors such as the learning objectives, the nature of the content, the target group and situational/institutional demands. For example, if the learning objectives primarily consist of the acquisition of information and basic knowledge, facts or rules, then the communication and construction component can be limited, and the content component may be more appropriate. Communication and construction are not always necessary as learners may not accept them if they are not perceived as beneficial to their learning. For example, basic course information such as weekly lecture schedules can be provided by technological means, and learners may not perceive attendance at a lecture as necessary to acquire this information. However, the knowledge of information acquired from the content component can be used as a prerequisite for later communicative or constructive learning activities. The communication component may be used when knowledge becomes more complex, or a deeper understanding is required. It can also help students to formulate, express and discuss ideas, and receive feedback. The construction component facilitates the application of knowledge or practical use of skills/procedures. Kerres & De Witt (2003) suggested that the components of the learning environment can be delivered via a range of communication methods, which can include face-to-face or technology based approaches.

In addition to considering the design of the BL environment itself, the way in which each component of the environment facilitates learning should be taken into account. It is therefore important to consider the learning process when designing an effective BL environment (Alonso et al., 2005), and it has been suggested that Kolb's (1984) experiential learning cycle provides one of the most useful descriptive models of adult learning processes (Hopkinson & Hogg, 2004).However, it is acknowledged that literature on the effectiveness this model is mixed, and that alternative learning models could be used. Kolb's cycle contains four elements: 'concrete experience', 'reflective observation', 'abstract conceptualisation' and 'active experimentation'. Different components of the BL environment would be likely to facilitate learning in different elements of Kolb's cycle. For example, the 'concrete experience' element of Kolb's cycle refers to a level of personal involvement in the phenomena of interest. In this element, students should be given experience of dealing with academic tasks such as referencing or finding information (Wingate, 2006). This experience could be provided by the constructive component of the BL environment, which actively engages students with learning tasks. Similarly, the 'reflective observation' component of Kolb's cycle refers to a systematic reflection on experience and learning (Hopkinson & Hogg, 2004). The opportunity for this reflection could be encouraged by the communication component of the BL environment via, for example, verbal feedback to a student from a lecturer and/or peer. Through this process students can be supported in understanding what it is they are expected to learn, and in the development of the necessary skills of reflection, self-direction and self-management (De George-Walker & Keeffe, 2010). The remaining two elements of Kolb's learning cycle are 'abstract conceptualisation', in which students relate their reflections to a stock of knowledge and develop new strategies, and 'active experimentation' where students apply their knowledge and transfer skills to similar tasks (Hopkinson & Hogg, 2004; Wingate, 2006). The relationship between the components of the BL environment and the experiential learning cycle is discussed further in the methods section of this paper.

1.3 Selecting the communication method for each component of the learning environment

When selecting the communication method, the theory of media synchronicity, which is the extent to which individuals work together on the same activity at the same time (Dennis & Valacich, 1999, cited by Kerres & De Witt, 2003), needs to be taken into account. Synchronous communication allows learners to collaborate, share information, and ask questions of one another and of the instructor in real time, and it can be used in a traditional classroom setting or via live e-learning. However, live e-learning works best if the class size is limited to 25 people to allow for optimal group interaction. Asynchronous communication allows learners to engage with activities at a time and place that is convenient to them, and to work at their own pace (Alonso et al., 2005).

The extent of synchronicity required will depend on the nature of the learning task. Learning tasks may involve

divergent processes, where knowledge is distributed, and less synchronicity may be required in such circumstances. For convergent processes, which establish a common ground for sharing knowledge and understanding, greater synchronicity in communication is required (Kerres & De Witt, 2003). Indeed, student groups required to complete tasks that require them to exchange and evaluate knowledge, and to come to a common result, tend to perform better in synchronous settings (Schweizer, Paechter & Weidenmann, 2003).

Whilst the nature of the learning task may need to be considered when selecting the communication method, the 'costs' of different methods for the learners also need to be taken into account. In general, synchronous communication is 'expensive' for learners, and face-to-face communication is often associated with the highest expenditure in terms of time, effort, and money in comparison with other technology-based approaches. Asynchronous formats of communication typically reduce the individual's (monetary as well as non-monetary) costs for communication (Kerres & De Witt, 2003). Face-to-face meetings in a blended learning approach therefore need particular consideration due to their cost to the learner. This is especially important as participation in face-to-face meetings is linked with retention, as learners who actively take part in face-to-face meetings are less likely to abandon their studies. To ensure that students perceive face-to face meetings as 'cost effective' the presentation of basic knowledge should be minimised, as this can be done asynchronously online. Face-to-face meetings should provide the opportunity for interpersonal communication and building social relations, and may include discussions in small groups or presentations by learners. Even short face-to face meetings can establish a common ground for understanding and strengthen the learners' commitment to the course (Kerres & De Witt, 2003).

2. Methods

2.1 Design of the study skills module

This section outlines the design of a semester one study skills module that aimed to facilitate students' transition to Higher Education study. The module was delivered to over 200 year one undergraduate sports students studying a range of sports related degrees, including Physical Education, Sports Science and Sports Coaching, at a Higher Education Institution in the UK. The study skills module was a required element on all of the sports students' courses, and these courses had a range of academic entry requirements. The cohort was therefore diverse in terms of academic ability and experience. The design of the module was informed by Kerres & De Witt's (2003) model of the BL environment, and Kolb's (1984) experiential learning cycle. Table 1 outlines the relationship between the components of the BL environment, the elements of Kolb's cycle, and the study skills activity.

During the study skills module, students were required to attend 10weekly, short synchronous face-to-face tutorials in groups of five with an allocated tutor. The purpose of each tutorial was to outline a specific study skills task for the students to complete in time for the next tutorial, and to provide feedback on the previous weeks task. The study skills tasks were contextualised to each individual student's programme. For example, during an initial task around time management, students were asked to identify all of the assignments and submission dates for the first semester of study on their course, and the remaining tasks were then designed to help them complete one of those assignments. This meant that when students were given a study skills task, such as gathering information, they selected the nature of the information they needed based on the assignment that they had chosen to work on. The remaining tasks continued to facilitate the process of preparing for a specific assignment, and focussed on skills including effective reading, academic writing, and referencing.

The study skills tasks were only briefly introduced during the tutorials, and were to be completed online asynchronously by the students over the following week. The lecturer acted as a learning facilitator, as students were directed to online resources that were intended to serve two purposes. Firstly, the online resources provided key information and allowed students to acquire basic knowledge and facts relating to study skills. This provided the content component of the BL environment (Kerres & De Witt, 2003), and the asynchronous setting was considered appropriate for this type of divergent process (Schweizer, Paechter & Weidenmann, 2003). Secondly, the online resources explained the nature of each weekly study skills task and required students to interact with the resources to complete the task. These tasks provided a constructive component of the BL environment (Kerres & De Witt, 2003), and aimed to facilitate learning in the concrete experience element of Kolb's (1984) cycle, as they actively engaged students and provided experience of dealing with academic learning tasks. Completion of these constructive learning tasks required students to use knowledge from the content component, and the asynchronous setting was considered suitable for the completion of such formative tasks (Kerres & De Witt, 2003; Schweizer, Paechter & Weidenmann, 2003). The online resources that guided students through each task were in a range of formats, such as interactive animated 'Flash Player' resources, short 'Windows Movie Maker' videos, web-based 'treasure hunts' and other supporting material. They were designed with the aim of creating learning objects that encouraged interaction, as

opposed to information objects that simply presented materials (Innes, Mackay & McCabe, 2006).

Students were provided with feedback on their completion of each task at the following weeks synchronous face-to-face tutorial with their tutor and peers. The tutorials were intended to encourage students to reflect on their experiences, and therefore encouraged a shift in the lecturer role away from delivery and towards the facilitation of deeper, more experiential learning (Fox and MacKeogh, 2003). The tutorials provided the communication component of the BL environment (Kerres & De Witt, 2003), and aimed to facilitate learning in the reflective observation element of Kolb's (1984) cycle, as students were able to discuss ideas with peers, receive feedback, and reflect on their experience. The synchronous setting of the tutorials was considered appropriate for this type of convergent activity, as it required students to exchange and evaluate knowledge and to come to a common result. In addition, it provided opportunity for interpersonal communication and building social relations (Kerres & De Witt 2003; Schweizer, Paechter & Weidenmann, 2003).The tutor groups were kept as small as possible as research has suggested that small tutorial groups encourage more meaningful engagement with subject matter, peers, and tutors (Clarke& Lane, 2005).

The students' development of study skills was assessed using two methods, and the assessment tasks were considered part of the learning environment. Firstly, student engagement with the BL tasks was assessed at the weekly tutorials, and this was worth 50% of the overall module grade. A total of ten tasks were set and students were only credited with engagement if they both attended the associated tutorial and demonstrated engagement with the task. Students were considered to have engaged with the task if they accessed the online resources (which staff could monitor via the VLE tracking functions) and provided evidence of an attempt to complete the task. The quality of the student's attempts to complete the tasks was not assessed, and what constituted a genuine attempt to complete them was left to the judgment of each tutor. Students were required to engage with a minimum of five tasks/tutorials to achieve a pass grade, and 8 or more for an 'A' grade. The second method of assessment was a 1500 word essay worth 50% of the overall module grade, and this was considered to be a constructive component of the BL environment. The essay required students to reflect on their use of study skills during their first semester in HE and to relate these reflections to knowledge gained from relevant literature. The essay also required students to identify how they could refine their strategies and apply their study skills in other modules, and therefore aimed to encourage learning in the abstract conceptualisation element of Kolb's (1984) cycle. The overall grade for the module was therefore based on a combination of the frequency of student engagement and the quality of their essay. It was anticipated that the active experimentation element of Kolb's cycle would occur on an on-going basis as students transferred their study skills to other similar tasks or modules. For example, many of the study skills tasks required students to revisit skills that had been introduced in previous tasks, which provided an opportunity for students to complete them more expertly.

Insert Table 1 Here

2.2 Evaluating student perceptions of their learning experience

Data was collected for this study in three ways. Firstly, and in order to establish if experiential learning had taken place within the four phases of Kolb's (1984) cycle, a series of focus groups were undertaken two weeks after the completion of the module. Following institutional ethical approval, volunteers were recruited to take part in an evaluation of the study skills module, and eight focus groups, each with 6 students were subsequently undertaken over a two-week period. Informed consent was gained from each participant and each semi-structured focus group lasted for approximately 30 minutes and was led by a member of the module team. This, of course, means that the researchers and the assessors within the module were one and the same. Whilst this needs to be acknowledged, it is in line with similar research in this area (see Hopkinson & Hogg, 2004). On completion, the focus group interviews were transcribed verbatim and names of respondents were replaced with pseudonyms.

Focus group data were analysed using a directed content analysis (Hsieh & Shannon, 2005). This approach to content analysis sees researchers using existing theory to identify key concepts that serve as initial coding categories. In the case of this study the initial coding categories were identified as the four stages of Kolb's cycle. Data were coded into the four pre-determined categories where possible. Supporting evidence of learning in each element of the cycle has subsequently been presented by outlining each pre-identified category and by providing exemplars from the coded data.

Secondly, as it was anticipated that abstract conceptualisation would occur during the completion of the study skills essay, student work was scrutinised for evidence of learning within this particular element of the cycle. This is a method that has previously been used by Hopkinson and Hogg (2004) to evidence experiential learning. For this purpose, 12 essays were randomly selected from the 233 students that were enrolled on the module and analysed using the same procedures as for the focus groups data.

Finally, as there can be difficulties in getting students to engage with study skills courses (Durkin & Main, 2002), the extent to which the students engaged with the module was also considered. To this end, a descriptive statistical analysis of grades awarded for engagement with the online tasks was completed.

3. Results and Discussion

Considering that students often fail to understand the relevance of study skills courses (Durkin & Main, 2002) there was a pleasing level of engagement shown by the students. Table 2 outlines the grades gained in the tutorial task engagement assessment by the 233 students enrolled on the module and reveals that74% of students continued to engage with the process to the point where they completed eight or more tasks and were awarded the highest grade. Whilst it should be acknowledged that the grading, albeit not towards final degree classification during year 1, might have provided the incentive for some of this engagement, the relatively high percentage of students achieving the highest grade indicates excellent student engagement with the module.

Insert Table 2 Here

The main aim of the study, however, was to consider whether the BL environment had proved effective in facilitating experiential learning within the sample of students. Each element of the cycle is considered below.

3.1 Concrete experience

Hopkinson and Hogg (2004) argued that while lecturers might hope that students feel better armed by their teaching, key points only became significant to students upon experience. Some of the focus group data concurred with this, with David amongst those outlining that the online study skills tasks facilitated active engagement and were beneficial in terms of developing their skills and understanding:

> I thought it was good to go away and practice it yourself, cos you can sit there and the tutor tell you what to do, but you might not take it in. Going away and doing it actually helps more with the skills rather than just sitting in front of a lecturer (David).

In addition, there was some evidence that the BL environment designed as part of this module had been useful in facilitating this type of concrete experience. Synchronous learning activities have a high 'cost' for the learner in terms of time effort and money (Kerres & De Witt, 2003), while asynchronous communication allows learners to engage with activities at a time and place that is convenient to them, and to work at their own pace (Alonso et al., 2005). Indeed, a number of students indicated that the asynchronous nature of the weekly study skills activities had helped to facilitate a more effective learning experience. For example:

> I found the one with the hyperlink thing…was probably the best… I needed to work at my pace so I think with the hyperlink thing, it was just there for you so you can do it however fast you want to do it or however slow. (Ian)

It should be acknowledged that not all students found these asynchronous tasks as effective in terms of providing this concrete experience. Nevertheless, the data provided here does provide some initial support for the usefulness of a well designed BL environment in engaging students with this stage of Kolb's experiential learning cycle.

3.2 Reflective Observation

Wingate (2006) suggested that feedback on completed tasks could help to encourage reflection and there was evidence that the tutorials in the module helped this to occur. For example, Laura outlined that the tutorial that she attended following the completion of an online task related to using PowerPoint helped her to reflect on her approach to the task:

> I thought "what on earth are they teaching us, I know how to work blooming PowerPoint" and then like when you actually said how it's supposed to be done I realised that maybe some of the things I've been doing need to be tweaked to make it better for everyone else to be able to see it better. (Laura).

Further data outlined the benefits of an effectively designed BL environment in facilitating this type of reflection. The tutorial element of the module reflects the communication component of Kerres & De Witt's (2003) model. It was anticipated that, following completion of the weekly online tasks, the tutorials would facilitate interaction and allow students to discuss ideas and receive feedback. Schweizer, Paechter & Weidenmann (2003) reported that student groups that were required to exchange and evaluate knowledge and ideas tended to perform better in synchronous settings and the interactive and face-to-face nature of these small group tutorials certainly seemed to encourage the type of reflection outlined by Wingate (2006). For example, George seemed to indicate that the

interaction that he had with others in his tutorial group encouraged him to reflect on how he had completed the various tasks:

> In our group you basically helped each other out…everyone else kind of helped each other out. There were times when I did it wrong but I learnt from others and I thought OK and I asked them afterwards 'how have you done it?' (George)

It was also evident that the student reflection that occurred as a result of these tutorials allowed students to start proposing explanations for their experiences (see Hopkinson & Hogg, 2004). Once again, the interactive and synchronous nature of the tutorials had been helpful in facilitating this reflection. In the case of Sukhdeep it was learner-tutor interaction (see Kerres & De Witt, 2003) that allowed him to understand why he may have been unsuccessful in completing previous tasks:

> …..going and talking to my tutor, knowing what I'd done wrong and right, how I was progressing and how I was failing was beneficial to me personally so I knew what to do when it came to the next activity. (Sukhdeep)

This data provides evidence for learning within the reflective observation stage of Kolb's (1984) cycle, and again outlines the usefulness of a BL environment in facilitating these processes.

3.3 Abstract conceptualisation

It was anticipated that the study skills essay would help the students to demonstrate learning in the abstract conceptualisation stage of Kolb's (1984) cycle. In this element of the cycle students integrate their experience and reflection with knowledge gained from elsewhere. Analysis of the submitted essays revealed that many of the students studying on the module were reflecting on their use of study skills and were using theoretical knowledge gained from literature to aid their transition from apprehension to comprehension of the tasks (Hopkinson & Hogg, 2004). Adam was amongst the students to demonstrate learning in this area:

> Another weakness I have found… is my ability to perform an effective presentation……Sinfield (2003) suggests that the best way to improve and deliver a successful presentation is by following the four P's: planning, preparing, practising and presenting… Cotterill (2001) criticises people as they tend to spend too much time on the research to try and impress tutors, but fail to spend enough time actually preparing the work…(Adam)

This data suggests that the reflective essay may have facilitated learning in the abstract conceptualisation element of Kolb's cycle. In addition, students also indicated that they saw the study skills essay as a useful opportunity to practise their newly developed skills, and may therefore have also facilitated active experimentation:

> I thought it was beneficial cos you have to do the work and like the skills helped you in the essay, so if you didn't know the skills beforehand you'd have been stuck on the essay. I think it helped (Chloe).

3.4 Active Experimentation

In order to demonstrate active experimentation, students should be able to use the skills that they have learned to complete similar tasks more expertly (Wingate, 2006). It was expected that this would occur through a transfer of skills to other tasks or modules, and there were numerous examples of how this occurred. For example, Lisa explained how she used her study skills to help with a task on another module:

> I found in the reflective writing, I found that really helped me because that was probably my weakest point and in our introduction to coaching assignment we have to do a reflective writing, it helped so much because it just transferred the skills across basically and I found that really, really useful. (Lisa)

This data provides evidence that learning was present in this final element of Kolb's (1984) experiential learning cycle.

4. Conclusion and Recommendations

As increasing numbers of students arrive in Higher Education (HE) without the skills to study effectively (Wingate 2006), lecturers face the problem of ensuring that students receive the study skills support they require if they are to achieve and progress. This has been shown to be problematic because the size of student cohorts have been steadily increasing, while traditional methods of study skills support have failed to engage students (Durkin & Main,2002) and have been criticised for not taking basic learning theory into account (Harrison, Lawson & Wortley, 2005).This study has outlined a potential solution to this problem. The study skills initiative, delivered to a large first year

undergraduate cohort encouraged a high level of student engagement and also encouraged learning in each of the four stages of Kolb's (1984) experiential learning cycle. Further, it has been argued that the development of an effective BL environment, that incorporated a combination of on-line resources, tasks, small group tutorials and a reflective essay, helped to facilitate much of this experiential learning. Teachers in HE should therefore consider the benefits of a blended learning approach as a means of facilitating the experiential learning of study skills with large and diverse undergraduate student cohorts.

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References

Alonso, F., López, G., Manrique, D., & Viñes, J. M. (2005). An instructional model for web-based e-learning education with a blended learning process approach. *British Journal of Educational Technology*, 36(2), 217-235. http://dx.doi.org/10.1111/j.1467-8535.2005.00454.x

Appleton, L. (2005). Examination of the impact of information-skills training on the academic work of health studies students: a single case study. *Health Information and Libraries Journal*, 22(3), 164-172. http://dx.doi.org/10.1111/j.1471-1842.2005.00576.x

Blythman, M., & Orr, S. (2002). A joined-up approach to student support. In *Failing students in higher education*, ed. M. Peelo, and T. Wareham. Buckingham: The Society for Research into Higher Education.

Boyle, T., Bradley, C., Chalk, P., Jones, R., & Pickard, P. (2003). Using blended learning to improve student success rates in learning to program. *Journal of Educational Media,* 28(2), 165-178. http://dx.doi.org/10.1080/1358165032000153160

Clarke, K., & Lane, A. (2005). Seminar and tutorial sessions: a case study evaluating relationships with academic performance and student satisfaction. *Journal of Further and Higher Education*, 29(3), 15–23. http://dx.doi.org/10.1080/03098770500037689

De George‐Walker, L. & Keeffe, M. (2010). Self‐determined blended learning: a case study of blended learning design. *Higher Education Research & Development*, (29)1, 1-13. http://dx.doi.org/10.1080/07294360903277380

Dennis, A., & Valacich, J. (1999). Rethinking media richness: towards a theory of media synchronicity. Paper presented at the 32nd Hawaii international conference of systems sciences (HICSS-32), January 5-8, in Hawaii.

Durkin, K., & Main, A. (2002). Discipline-based study skills support for first-year undergraduate students. *Active Learning in Higher Education*, 3(1), 24-39. http://dx.doi.org/10.1177/1469787402003001003

Fox, S., & MacKeogh, K. (2003). Can e-learning promote higher-order learning without tutor overload? *Open Learning*, 18(2), 121-134. http://dx.doi.org/10.1080/0268051032000081833

Groves, M., Bowd, B., & Smith, J. (2010). Facilitating experiential learning of study skills in sports students. *Journal of Further and Higher Education*, 34(1), 11-22. http://dx.doi.org/10.1080/03098770903477060

Harrison, J. K., Lawson, T., & Wortley, A. (2005). Mentoring the beginning teacher: developing professional autonomy through critical reflection on practice. *Reflective Practice*, 6(3), 419-441. http://dx.doi.org/10.1080/14623940500220277

Hopkinson, G., & Hogg, M. (2004). Teaching and learning about qualitative research in the social sciences: an experiential learning approach amongst marketing students. *Journal of Further and Higher Education*, 28(3), 307-320. http://dx.doi.org/10.1080/0309877042000241779

Hsieh, H., & Shannon, S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288. http://dx.doi.org/10.1177/1049732305276687

Hughes, G. (2007). Using blended learning to increase learner support and improve retention. *Teaching in Higher Education*, 12(3), 349-363. http://dx.doi.org/10.1080/13562510701278690

Innes, A., Mackay, K., & McCabe, L. (2006). Dementia studies online: reflections on the opportunities and drawbacks of eLearning. *Journal of Vocational Education and Training*, 58(3), 303-317. http://dx.doi.org/10.1080/13636820600955567

Jelfs, A., Nathan, R., & Barrett, C. (2004). Scaffolding students: suggestions on how to equip students with the necessary study skills for studying in a blended learning environment. *Journal of Educational Media*, 29(2), 85-96. http://dx.doi.org/10.1080/1358165042000253267

Kerres, M., & De Witt, C. (2003). A Didactical framework for the design of blended learning arrangements. *Learning, Media and Technology*, (28)2, 101-113. http://dx.doi.org/10.1080/1358165032000165653

Kolb, D. (1984). *Experiential learning: experience as the source of learning and development*. Englewood Cliffs, New Jersey: Prentice-Hall.

Lindblom-Ylanne, S. (2004). Raising students' awareness of their approaches to study. *Innovations in Education and Teaching International*, 41(4), 405-421. http://dx.doi.org/10.1080/1470329042000277002

Oliver, M., & Trigwell, K. (2005). Can 'blended learning' be redeemed? *E-Learning,* 2(1), 17–26. http://dx.doi.org/10.2304/elea.2005.2.1.17

O'Toole, J. M., & Absalom, D.J. (2003). The impact of blended learning on student outcomes: is there room on the horse for two? *Journal of Education Media*, 28(2), 179–190. http://dx.doi.org/10.1080/1358165032000165680

Stubbs, M., Martin, I., & Endlar, L. (2006). The structuration of blended learning: putting holistic design principles into practice. *British Journal of Educational Technology*, 37(2), 163–175. http://dx.doi.org/10.1111/j.1467-8535.2006.00530.x

Schweizer, K., Paechter, M., & Weidenmann, B. (2003). Blended learning as a strategy to improve collaborative task performance. *Journal of Educational Media*, 28(2), 211-224. http://dx.doi.org/10.1080/1358165032000165699

Sharpe, R., Benfield, G., Roberts, G., Francis, R. (2006). The undergraduate experience of blended e-learning: a review of UK literature and practice. Higher Education Academy. [Online] Available: http://www.heacademy.ac.uk/resources/detail/Teachingandresearch/Undergraduate_Experience

Verkroost, M.J., Meijerink, L., Lintsen, H., & Veen, W. (2008). Finding a balance in dimensions of blended learning. *International Journal on E-Learning*, 7(3), 499-522.

Wingate, U. (2006). Doing away with 'study skills'. *Teaching in Higher Education*, 11(4), 457-469. http://dx.doi.org/10.1080/13562510600874268

Yorke, M. (2004). Retention, persistence and success in on-campus higher education, and their enhancement in open and distance learning, *Open Learning*, 19(1), 19-32. http://dx.doi.org/10.1080/0268051042000177827

Zeegers, P., & Martin, L. (2001). A learning to learn program in a first-year chemistry class. *Higher Education Research and Development*, 20(1), 36-52. http://dx.doi.org/10.1080/07924360120043630

Table 1. The relationship between the components of the BL environment and the experiential learning cycle

Component of BL environment (Kerres and De Witt, 2003)	Kolb's learning cycle element	Description of element (Hopkinson and Hogg, 2004)	Applying the cycle to study skills delivery (Wingate, 2006)	Study skills module activity
Content component				Study skills resources provided via the VLE.
Constructive component	Concrete Experience	A level of personal involvement with the phenomena of interest	Students should be given the experience of dealing with academic tasks	Weekly study skills tasks
Communication component	Reflective Observation	Students undertake a more systematic reflection on experience and learning and may even attempt to provide explanations for these experiences	Feedback on the tasks undertaken would encourage this type of reflection	Weekly tutorials
Constructive component –	Abstract Conceptualisation	The student relates reflections to a stock of knowledge gained outside the arena of the experience	This will allow the student to develop new strategies when using these study skills.	Study skills essay
Constructive component	Active Experimentation	The student tests and exploits the predictions arising from their extant comprehension	Students should be able to complete similar tasks more expertly	Transferring of skills to other tasks or modules.

Table 2. Grades achieved in the task engagement assessment

Grade	Tasks completed to achieve this grade	Percentage of Students Achieving this Grade
A	8	73.5
B	7	7.0
C	6	8.2
D	5	1.7
E (Marginal Fail)	4	2.6
F (Fail)	Fewer Than 3	7.0