Can distance learning become an affective mode of delivery?

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Abstract

The term blended learning is becoming more prevalent in the fields of Health and Social Sciences. Although it tends to be synonymous with e-learning; this should not be the case as blended learning involves an integrated delivery strategy. Rossett *et al*. (2003) suggest that this could include interaction with a supervisor; participation in an online class; breakfast with colleagues; competency descriptions; reading on the beach; reference to a manual; collegial relationships; and participation in seminars, workshops, and online communities. This paper will attempt to explore whether the integration of the Virtual Learning Environment (VLE) to a traditionally taught masters programme through the development of a blended learning strategy, can facilitate its evolution to distance learning.

Paper

Why are we putting ourselves through this trauma must be the first question to answer. Answering it is simple, the Public Health masters is only in its second year of presentation. However at the beginning of this academic year it was noted that there were more active enquires (email information sought on more than 5 times) than admissions. An audit was undertaken of these 88 potential students who were split between home and overseas. A 100% reply was received to the questions asked, and what quickly emerged was that a distance learning pathway should be considered, as the responses covered no study leave, too costly travel per day to study sessions, in addition from overseas if 'I leave my job I may not get one when I return, I have family responsibilities so I cannot stay in the UK'. These comments reflect the Department of Health statement back in 2002, when they stated the use of distance learning in the delivery of health care education is student driven.

At the same time it is becoming increasingly obvious that the demographics of students entering health and social science studies is moving towards the mature and or female candidate with a trickle of interest from overseas so non-traditional students, who may well be juggling family responsibilities whilst studying. Leonard (1994) suggests that one third of women find a lack of support when they return to education, have we moved on from this and is it another feature that has to be considered in the design of the programme. Kevern and Webb (2004) suggested that this student group being mature student often lacks coping strategies and support systems for effectively managing the course workload and that of the domestic role. Whereas Boud (2000) and Yorke (2003) argued that one of the key

purpose of higher education is to facilitate the autonomy of learners. Taking these into consideration the idea was born.

Where to start blended learning can go beyond the classroom as we know allowing students to seek the information that they need, when they need it. However, it is important to ask, "Is human interaction essential or will technology and the virtual environment suffice?" Such a difficult question to answer. Many people have studies with the Open University or similar institutions where the evaluations although always positive they also stressed the need for human contact. The next concern is how to obtain engagement we cannot be alone in that we skipped many a set activity (in distance learning booklets) did we suffer, we completed the course and gain the qualification but is that all it is about? One thing that must be avoided is that it becomes purely reading exercise to achieve the assignment.

It has been argued by many people that the fields that health education is fraught with complex, controversial and ethical issues which require face-to-face debate and intellectual interaction. Therefore it could be debated that the use of traditional teaching methods underpinning a programme are as relevant today as they have always been. However Gibbs (2000) suggests that subjects have been brought a live by distance learners in the way they use the new technology. Gibbs (2000) further stated that even the more mundane process of communication between teacher and student has improved one may question is that because in fact more time is taken in responding, rather than a cursory comment, as the lecturer feels the student should be able to take charge of their own learning at this level.

How to achieve a course in which the student will engage whether they are in the UK or India is a tremendous challenge. Dr Michael Moore Professor of Education at Penn State University in his key note address in San Antonio (2007) advocated that "you should be looking for minimal change for the maximum effectiveness". He alluded to work undertaken on student engagement with the Virtual Learning Environment (VLE) this philosophy sounds good for the Public Health Masters.

When examining the issues surrounding blended learning, acknowledgement should be made that it does come at a cost, both organisationally and individually. The development of the realistic assets that make up the virtual learning environment and human involvement in the ongoing support and future development of this blending process both add cost to the process. In considering blended learning, all too often emphasis is placed on which e- package to purchase; but more importantly the start point should be, "what resources do we already have and how can we enhance them?" Individuals involved will need to understand their roles and the reasons for the multifaceted approaches used in blended learning. Campbell (2001) stresses that there is a major change in the role of the lecturer, and this is best achieved through peer support. Something that Macdonald (2006) suggests is that academic communities have much to learn from each other. Sharing and support equally appear to be in short supply.

As a concept the VLE within this institution known as Bedfordshire Resources for Education Online (BREO) can be considered as a platform on which e-Learning can take place, the pedagogies

supporting e-Learning are not new, for Meiklejohn (1882) enthused, "learning is a social act." The use of a discussion board facilitated within a VLE, has the potential to develop higher order thinking. Reflection is part of the higher order cognition and requires the use of dialogue and language. So students should be able to make statements and counter statements, challenge and defending their position (McKendree *et al*., 1998) if this is so this fits in with blogging.

Delivery of an educational programme via a VLE overcomes geographical boundaries and will support the autonomy of a student (Billings *et al*., 2001). Paul Resta Professor (2007) in Instructional Technology at The University of Texas stated we should not teach but that the student should undertake guided research, supported by students' reflection, with the online environment being a safe one for challenging the academic beliefs due to its non personal and non threatening approach. One mechanism that may help with this is computer conferencing systems which extend class time, which may, in turn lengthen the time which students spend engaged in course content (Cifuentes *et al*., 1997). Poole (2000) addresses this phenomenon in her case study which demonstrates that the flexible participation schedule afforded by computer-mediated communication tools can lengthen the time in which students are engaged in class material. She reinforces this stance by demonstrating that the students involved did not engage with the synchronous chats facilitated, choosing to embrace the asynchronous discussion. This medium appears to be one answer but how will it work across time zones.

The Public Health masters is not delivered by traditional "Chalk and Talk", it has PowerPoint™ and printed material capable of being converted to Portable Document Format (PDF). One of the advantages of PowerPoint™ is the ability to run video clips and images within a slide show; whilst it is said that a picture paints a thousand words, it could also be said that a video paints two thousand words. Blackboard™, a learning (or learner) management system (LMS) was available, but has not utilised at this point. It is suggested that the introduction of web based learning must be a structured process; Masie (1998) maintains that students using web-based media are always merely one click away from exiting the programme. The move from traditional to electronic delivery of lectures produced learning material suitable for use within the virtual classroom setting is yet another issue to be considered. Further, if, as argued by Boud (2000) and Yorke (2003), a key purpose of higher education is to facilitate the autonomy of learners in the world of life long learning, one way of doing this is to introduce diversity in delivery.

This virtual environment is an underestimated resource, as it can provide opportunities for the student to revisit and revise (Taylor *et al*., 1997). Glen (2005) asserts that technology has not produced the quantum leap in proving pedagogy and still focuses on presentation of content rather than ensuring that students are fully engaged and learning. This is a pertinent observation as student engagement is integral as without it e- learning will wither on the vine. There were high hopes for this new approach however; the uptake by students was disappointingly low. Delivery had been carried out by the Learning Resources Team within the faculty, and this introduction had evaluated well. Engagement however, had been poor due, it transpired, to a combination of a lack of perceived advantage i.e. "it's

just another resource" and/or technophobia. To try to understand why, a critical analysis of how the students were introduced to Blackboard™ was undertaken; this was carried out through informal interviews.

Where were the problems because there was an expectation that students would make an extreme change to their learning strategies without the recognition that this has its own inherent complications? Palloff and Pratt (2001) argue that traditional modes of learning may not have prepared the students for the autonomy and interdependence required to engage fully with the virtual learning environment. Did the failure come from underestimating the need for group identity? This sense of community was emphasised by Tinto (1993) as a consideration to reducing student attrition, he further theorised that learners would have enhanced levels of satisfaction if they believed themselves to be part of a learning community. This premise is supported by Rovai, (2002) who expands on this hypothesis by stating that increased feelings of community could also increase motivation to learn and make available a larger set of resources in the form of other learners, who in turn could be called upon to assist with learning.

To explore the low take up several options were considered, and in discussions with colleagues in Learning Technology Support and Learning Resources, it was decided that the fostering of the concept of the learning community was to be the first consideration. This can, in part, be achieved through the use of discussion boards; this use of asynchronous learning allows peer support through the sharing of learning resources: this is a practical example of constructivist pedagogy combined with the communal constructivist theory; learning for the common good, as opposed to that of the individual . The success of a learning community is dependent upon the virtual society; the student has to be an individual within the virtual society before they can integrate into the learning community. To these ends, a series of tasks set for all the students was devised. It would be important to ensure that these were carefully prepared; as Laurillard (1998) stresses the importance of guiding the students in a structured way, so that 'learner control' does not mean 'unfocussed and inconclusive'. Proctor (1992) further outlines the three key elements of supervision, including normative elements (dealing with organisational responsibility and quality control), formative elements (concentrating on the development) and restorative elements (supporting well being).

The project began with the students from the Operating Department, constructing their own homepage. This included a photograph, which reinforced who they were; they also provided a short text on what they want to achieve. This enables the other students to 'put a name to the face', thus starting the process of enabling the transference from society to community. The second task for the students was to engage with the discussion board for the first time; the task set was to 'introduce your self to the cohort'. The project team felt it was vital for the students to be using the discussion boards at the earliest opportunity because successful engagement with the learning community is dependent upon the student's ability to project themselves into the learning community (Rourke, *et al*., 1999; Fisher 2003). Leading on from this, the use of asynchronous discussion tends to create a culture of reflection (Kolb, 1974, 1984; Hiltz, 1994; Poole 2000), so having brought the students to the discussion board, they were

asked to place a piece of reflection on this board. Some used closed statements such as "I enjoyed my first week at Uni". However, others made open statements and pleas for help. Reflection is part of the higher order cognition and requires the use of dialogue and language. So, by having the students making statements and counter statements, and challenging and defending the assumptions they make, the intention is to develop this higher order thinking (McKendree *et al.*, 1998).

Due to the diverse make up of the cohort, dialogue ensued with a sharing of personal experiences and debate. It is suggested by Althaus (1997) that 40 to 80% of the time in face-to-face discussions is in fact taken up by the teacher. Althaus (1997) further reveals through his research that in an average 50 minute classroom session, only 40-45 minutes are left to prime discussion once the topic has been introduced and course business has been attended to. This demonstrates that in the traditional classroom setting there will always be students who, through confidence or by their extrovert nature, will dominate discussions, leaving a second group unable, or unwilling to contribute. The use of asynchronous discussion removes the choice of whether a student contributes or not; as Quinn et al. (1983) identify in their study, in classroom discussions the average student answer was twelve words long, whilst a reply on an asynchronous discussion board was on average 107 words, leading to a potential level playing field for all students (Wepner and Mobley 1998). McFerrin (1999) identifies that 'hidden' learning outcomes can be achieved in this type of delivery medium; the facilitation for students who have difficulty speaking publicly, who are shy or whose first language is not English are just some of the advantages of blended learning (Berge and Collins 1993; Harasim 1990; Turoff 1990).

As previously stated, Rovai (2002) implies that increased feelings of community could also increase motivation to learn and make available a larger set of resources; the data from this study may well support this as a hypothesis. For instance, Figures 1 and 2 demonstrate the comparative data between the cohorts. Cohort A (21 students) who engaged the least and Cohort B (23 students) with the highest engagement factor; surprisingly, the students being of a similar demography demonstrate marked differences. There were three main areas of interest identified within the study. The first of which was learning materials, as Cohort A accessed this section 17 times whereas ODP Cohort B accessed it 1,076 times. The second was learning resources, where Cohort A accessed this section 55 times, whereas Cohort B accessed it 754 times. The final area was web links, and these were accessed by Cohort A 36 times and by Cohort B 154 times.

During an in-depth analysis of the two paired samples, one test and one control, and for the purpose of this analysis the control data set is cohort A and the test dataset is cohort B. Wonnacott emphasises that randomised, blind experiments ensure that on average the two groups are initially equal, and continue to be treated equally. Thus a fair comparison is possible Wonnacott (1985). This was achieved by the introduction of only one variant between the two cohorts. Clifford et al reiterate that we also need to ensure that as far as possible the researcher does not 'select' people to participate in the study knowing that they are more likely to respond in a particular way (Clifford *et al*., 1997). The sample frame consists of students selected for training using the same selection criteria; this ensured true

randomisation of the sample frame. Delivery of the syllabus was identical between the two cohorts with the acceptation of the 'getting started' exercise.

Wonnacott also suggests that an experiment should be rigorously controlled by being randomised and blind (double-blind, if possible) such experiments are the scientific ideal Wonnacott (1985). To these ends the participants were unaware that the study was taking place, and the data analysis was undertaken by a mathematician who was unconnected with the study and its subjects demonstrating this to be a double-blind study. The data demonstrates that the null hypothesis that 'there is no difference between the control and test data sets' can be rejected due to the following analysis;

Drawing a comparison between the engagement of cohort A and cohort B with the Virtual Learning Environment resources was undertaken, this was undertaken on an individual and comparative resource basis. Evidence from the data suggests that two totally different learning communities exist; one which is not at all comfortable with the virtual learning environment and another that not only embraces it, but is keen to revisit and interact. This divergence into the supplied learning materials and resources was not included within the three structured tasks. This would suggest that 'communal constructivism' had taken place within the second cohort (B) (Holmes et al, 2001; Leask and Younie 2001),

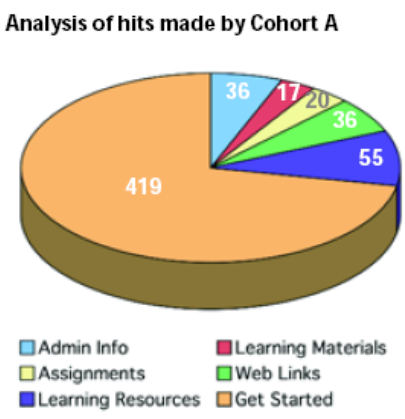

Fig 1

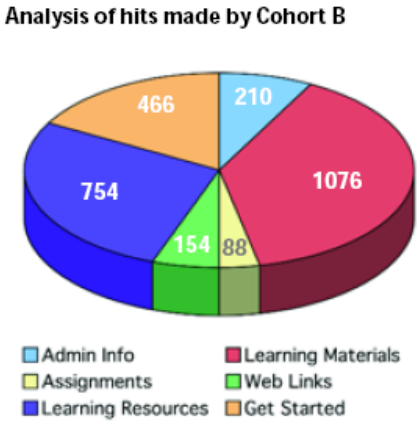

Fig 2

It would appear that these students had constructed their own knowledge through interaction with the virtual learning environment, which can be defined as social constructivism, and this had been achieved whilst synthesising and disseminating knowledge for and to the virtual community.

So if we take forward this message in constructing action learning set as a basis for the distance leaning Public Health masters as a mechanism for engagement it would appear that these will need to be introduced in a controlled way in order to have success. It was always envisaged that the students would produce a webcam biography of themselves and their present work, which would shared with other distance learning students as a way of introducing themselves. In the same way the team would

do likewise as this enable face to be put to names and a working atmosphere be created. . Will engagement follow as this is the greatest hurdle to distance learning is student engagement; this having been achieved the structure of the distance learning package can be developed with all the inherent challenges of content, delivery and quality. Subsequently all seminars will be presented in this way to foster and forge the sense of group identity.

Then can we use Course Gene to change our materials into creditable online sessions that will engage the student in meaningful learning not just conveyor belts for assignment. The future of blended distance learning is in the hands of the educators. The potential benefits for all the participants in this learning experience are plain to see with the only limiting factor being the imagination. It is our belief that blended learning is a genie in a bottle, and once released it will never go back into that bottle again. However the question remains do we have the skill in the same way as we have the theory?

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