Evaluating Communication with E-Learners on the Public Health Masters Course

Susan Sapsed, Senior Teaching Fellow

Sandra Leggetter, Senior Lecturer

University of Bedfordshire

Bedfordshire, UK

Abstract

Within our University Teaching within the same course is increasingly being offered in a taught traditional format and via E-learning. The Public Health master's course worked in this mode. The team considered it was time to evaluate its progress and assess how successfully the E-learning group assessed our ability to communicate with them and facilitate their learning. This course was a progressive course, which has enabled students from diverse backgrounds to follow and extend their own area of expertise whilst gaining an academic qualification. The course can be studied either full or part-time, by attendance or by E-learning. The major part of their learning is self-directed and is organised through Blackboard, which is the online learning platform. Evaluation is necessary to assess the successful areas and see where the weaker elements can be made more substantive, in order to enable students to facilitate their own learning and lead to the successful completion of the course. We have used the student's evaluations and our experiences as a means of appraising the effectiveness of each area. The students considered successful areas as being the online presentation of the materials, emails and the use of Skype. The areas that were deemed as needing improvement or reassessment were the use of discussion boards and wiki's as the students expectations of the team being able to respond was beyond what we could offer. Equally, they felt that the taught group did not engage with them. The aspect they wanted the team to reconsider was the e-portfolio, not its use, but its structure and composition. The changes will now need to be considered.

Key Words – communication, evaluation, E-learning

Evaluation is necessary as a function in good teaching practice. The American Physiological Society (2002) suggests that evaluation is valuable as it provides both formative and summative feedback. The formative

feedback helps guide future changes to teaching practice whilst the summative feedback can identify the stated goals and objectives. Evaluation can also reveal how our students evaluate the different components in the course. The Public Health master is coming to the end of its fourth year as a taught course, and its second year as an E-learning course. The taught group evaluation is positive, but what about the E-learners? Evaluating our methods of communication with the e-learners is the starting point; if this is successful, it will have a positive impact on their learning.

Methods of communication have changed considerably over the last decade. Communicating with students taught in traditional ways does not present a problem whereas the introduction of the E-learning approach has identified many challenges for the teaching team; especially where the team was not conversant with the emerging e-technologies. Hence, it is a steep learning curve. E-learning is the learning via online environment, Zhang et al (2004). This use of technology is arguably one of the most powerful responses to the growing need for education, Zhang et al (2004). Higher education needs to meet the needs of today's workforce to continually improve on, and learn new skills, many whom will achieve lifelong judiciousness only though E-learning.

Evaluating what we are doing to ensure that we develop approaches that facilitate effective communication with our 'virtual' students enabling their progression will offer insight into the E-learners requirements. To achieve these aims we have had to review our pedagogy. Beetham and Sharpe (2007) ask *"as educators and higher educational establishments are we prepared and ready to re-think our pedagogies and re-do our practices?"* They propose that contemporary pedagogy would need to encompass *"ways of knowing"* as well as *"ways of doing"*. Mayes and de Freitas (2007) observed that we are witnessing *"a new model of education, rather than a new model of learning"* as *"our understanding deepens…we see how learning can be socially situated in a way never previously possible"*. So as E-learning breaks new grounds, we are forced to consider pedagogical changes. Hughes (2008) stated that elements to this pedagogy must include an understanding that: *"technology, without the pedagogy can be a fetishised and empty learning, and teaching experience – stylized, but without substance, simply an electronic information push"*. Hughes (2008) considered that the UK has lost it way by emphasising the technology per se, which has held back pedagogical debate. However Laurillard (2007) suggested that *"a synergy knowing and doing, pedagogy and technology arrived at through ongoing conversations with our learners and peers, is a starting point for tackling the bridge building policy, strategy, research, and practice'*. Therefore when gathered together they will form an appropriate new pedagogy.

Recently K2 Academy for Higher Education Institutes, K2 (2009) has considered what structure a new pedagogy should take. In the deliberation they have said that frequently the E-learning approaches focus on dialogue, interaction, collaborative activities and courses content and secondary to this the importance of what is generated

by the students. They suggested that their activities go unrecognised. They described this missing element as "Social-Constructivism", a pedagogical perspective, whereby learners construct their knowledge through discussions, thereby enhancing their own thinking skills without acknowledgement. Constructivism goes beyond the study of how the brain stores and retrieves information to examine the ways in which learners make meaning from experience. Rather than the transmission of knowledge, learning is an internal process of interpretation. K2 would say this interpretation does not occur in social isolation but within the students own social systems. This perspective is closely associated with many contemporary theories, most notably the developmental theories of Vygotsky and Bruner, and Bandura's social cognitive theory, Shunk (2000).

The pedagogy of '*Social-Constructivism'* would appear to be in line with this master's course as these students should be self-motivated and independent learners. However a blend of four main pedagogical perspectives would we feel, underpin the present programme more accurately. These are:

- **Cognitive perspective** - which focuses on the cognitive processes involved in learning as well as how the brain works it considers the student being actively involved in their learning process. They are not passive receivers. In fact, they can control their own learning, Shunk (2000).

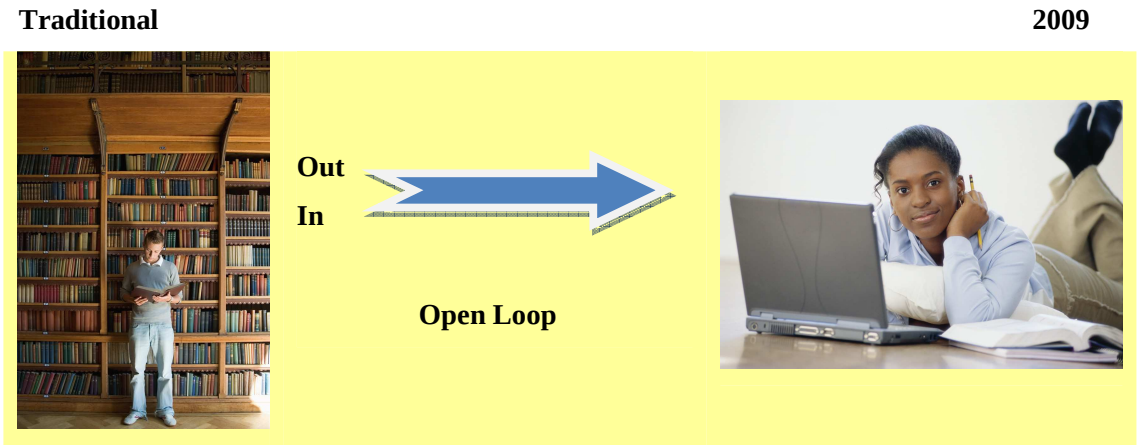
- **Emotional perspective** - This focuses on the emotional aspects of learning, like motivation, and engagement. The emotional perspective involves enabling students to be self-aware, socially cognisant, able to make responsible decisions, and competent in self-management and relationship-management skills to foster their academic success, Teachers College (2004).

- **Behavioural perspective** - This focuses on the skills and behavioural outcomes of the learning. The process of learning can then be defined as the relatively permanent change in behaviour resulting from experience or practice, Cunia (2005) and Hummel (2006).

- **Social perspective** - This focuses on the social aspects, which can stimulate learning. Interaction with other people, collaborative discovery and the pressure from peer support are important factors. This perspective considers the debate of nature and nurture, Rogers (2003).

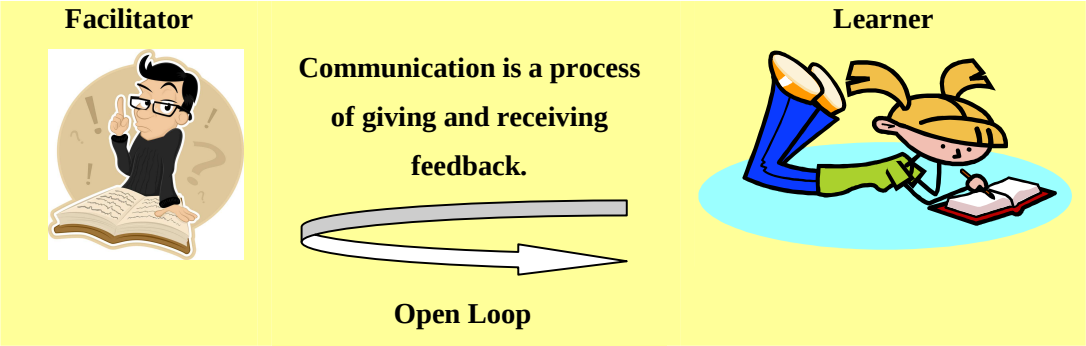
The pedagogy, which underpins the course, uses a combination of perspectives so that we might take into consideration the learning styles of the students. This need is re-enforced by the work of Rogers (2003) who reminds us that people learn differently at different times so age factor, has to be taken into consideration. This is an important aspect with a postgraduate course where the age range is frequently 26-52. We had learnt over the

last two years that the modern student has a different way of learning from the traditional learners. The computer learners want delivery within three clicks of a mouse, they need to read it on screen, listen to it or see it, using a book and reading is not part of their normal practice. The course content had already proved to be successful, but changing delivery for somebody sitting in front of a computer calls for different techniques. Sharpe and Oliver (2007) conceptualized that E-learning as a *Trojan Mouse*; it is simple yet at the same time startling in its effect. We must not think of just particular hardware and software. We need to make sure that new technology is effectively utilized for the course.



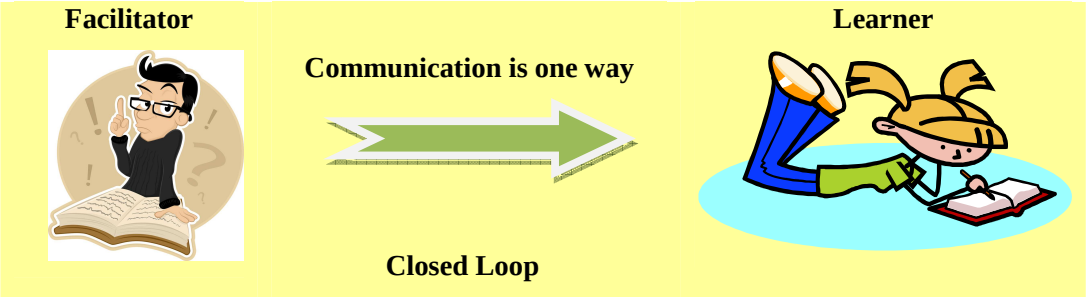
One lesson we have already learnt is that our students are not a homogenous group and come with a variety of educational experiences and backgrounds. As a result, the need for effective communication became apparent early on. Our experiences have indicated that if the learners do not fully engage with the methods we use to communicate and do not view themselves as belonging to *a "community of learners"* (Lave and Wenger (1991)) they become disillusioned and drop out. This notion is further supported by Smith et al (2001), who argued that students who do not share a physical environment and work together only in an online environment, face significant challenges in establishing a community of learners. They suggested, "*In the opening weeks of distance courses, there is an anonymity and lack of identity which comes with the loss of various channels of communication*". It is apparent that if we are to succeed meaningful communication, we need to establish protocols from the very beginning of the course. Although it looks very simple, this does not always appear to be the case.

Communication – Open Loop



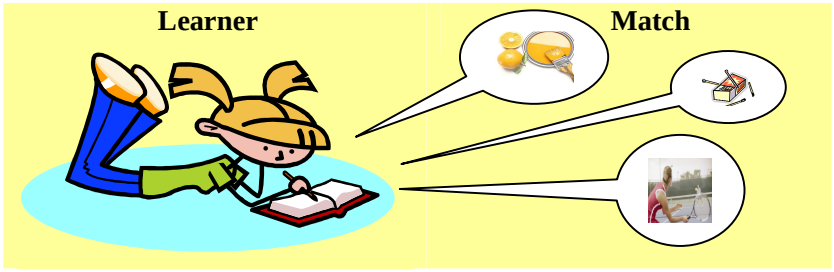
Kock (2005) estimates that an exchange of 600 words requires about 6 minutes for complex group tasks in face-to-face settings, while exchanging the same number of words over e-mail would take approximately one hour of effort. Therefore, a taught system enables immediacy in giving and receiving whereas the E-learners have a closed loop.

Communication in e-learning – Closed



Another challenge is that what is being communicated to the E-learner, is interpreted in the same way by all learners. There are many reasons why the learner may perceive the information in different ways. For example, how they come to the course in terms of educational background, expertise, experience, knowledge and background in Public Health can be factors. There may be cultural and environmental differences, which have an impact on commitment and the ability to sustain long-term commitment.

Communication / Perception



When reflecting we often become aware of how we frequently live our day-to-day lives by assessing what we will skip, Varis (2004). Therefore, we question how we gather accurate communication within our E-learning population. Can we really control confused perception issues and develop strategies to safeguard against confusion?

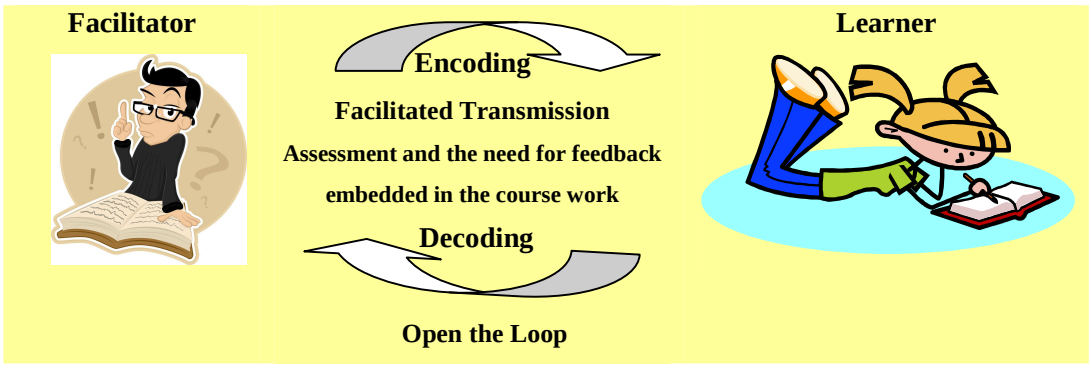
Hrastinski (2008) maintains that for E-learning initiatives to succeed organisations, and in particular higher educational institutions, must understand the benefits and limitations of different E-learning techniques and methods. He continues by saying that research over the last decade has enabled recognition of the impact of different factors in relation to the effectiveness of E-learning. Hrastinski (2008) describes the concepts of *personal participation* and *cognitive participation* via asynchronous and synchronous communication (Appendix 1). Personal participation describes a more arousing type of participation appropriate for less complex information exchanges, including the planning of tasks and social support. Cognitive participation describes a more reflective type of participation appropriate for discussions of complex issues. All things being equal, synchronous E-learning better supports personal participation and asynchronous E-learning better supports cognitive participation. The initial decision was which of the two basic types of E-learning communication would be more effective in enabling the learner. The second decision was which type we could support as a team. Romiszowski and Mason (2004) suggest that E-learning initiatives mainly rely on asynchronous means for teaching and learning, however, recent improvements in technology and increasing bandwidth capabilities have led to the growing popularity of synchronous E-learning, Kinshuk (2006).

Haythornthwaite (2002) argue that to sustain the E-learning, three types of activities are needed: content-related communication, planning of tasks, and social support. She further states that communication related to the course content is essential for learning. Hence, it would appear that achieving this is vital to success. Whereas in traditional education students enhance their learning by anything that is taught or facilitated but an important, “add on” is asking questions, sharing information and ideas. Another important factor, that perhaps the traditional students take for granted, is the support they get from one another when preparing assignments or

undertaking seminars. By collaborating, directly or indirectly, with peers there is a sharing of information, which can clarify and help students thought process when producing their own assignment. Although this collaborative learning often takes place in the classroom social support relationships can also be fostered away from the learning environment, for example over coffee or a beer. This is something that is not available to the E-learners. Haythornthwaite and Kazmer (2002) question whether anyone can realistically overcome isolation even by offering more continued contact, particularly synchronously. To enable E-learners to becoming aware of themselves as members of a community rather than isolated learners, discussion boards and Wiki could be engaged.

Finally, the choice was made to go with asynchronous communication based on the prospective student audit about their choice to undertaking an e-learning course. The highest response was for flexible learning that fitted into their life pattern. Look at the responses. It would be difficult to group the E-learners together as they were small in number and domiciled in a variety of countries. Therefore, it was even more important to achieve effective communication. Consequently, we have to focus on a well-designed course recognizing the limited opportunities to assess the E-learner's understanding. However, we decided we had to make available to them opportunities to speak to a team member. The only way we would manage this aspect is via 'Skype', which allowed questions to be answered and mini tutorials to be undertaken. Therefore, we need to find out how we can make asynchronous work.

Communication – Facilitating an Open Loop



The course content was informative. The course needs to be in a "language that the E-learner understands". This is not easy when the community of E-learners is internationally mixed and different by educational background. There are three recognised steps to take:

1. Determine how we will prepare the material so that the E-learner can make sense of it (encoding).
2. Determine what obstacles exist that might prevent proper understanding (decoding)
3. Determine the best ways to engage the learner (transmission)

The web-based medium used is Blackboard. Within the University, it is called the Bedfordshire Resources Education Online (BREO). Our first challenge was to enable all students to feel part of the University, so we set up an "Induction Day" in which we tried to introduce the student to the course staff and wider University using mini video's (see Diagram 6 and 7). The videos received positive feedback. The E-learners commented on the fact it made it easier to communicate with the team having seen them.

Diagram 6 - Team Page

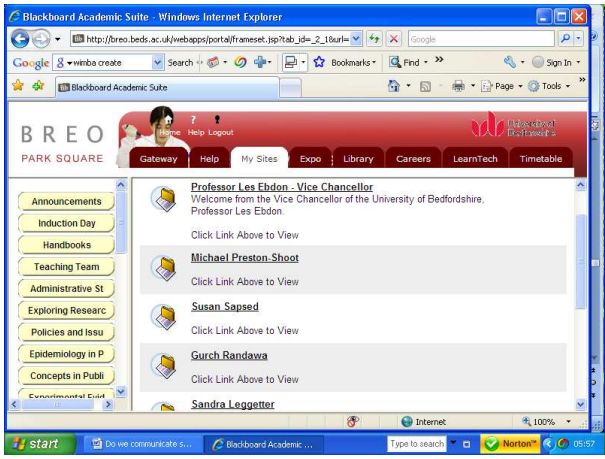


Diagram 7 – Vice Chancellors video

The next step was to ask all the students to make themselves known using a discussion board. Here are some examples:

My name is-. I am on the distance learning masters. I am currently working as a staff nurse in Essex and hope that gaining this masters will enable me to eventually become a nursing lecturer. I am very excited about studying again as it has been three years since I did my degree, but I am also really nervous.

Good luck to everyone

Hello everyone,

My name is-, I am Dutch, 31 years old, and I am also participating in the Distance-Learning course. It is a real pleasure to be a member of the group, as I have read all your fascinating backgrounds. Special welcome to the people from Africa!

My background is in Public Administration, but I have worked for several years in the area of Sexual and Reproductive Health, both for the United Nations Population Fund (in Africa and the Caribbean) and an NGO in the Netherlands. I now feel the time has come to gain more substantial background in Public Health.

My personality is a bit like Lara's and I am also a bit nervous, but I very much look forward to working with all of you to fulfill our dreams.

Warm regards,

Did it achieve its object? To a certain extent, we as the team understood the diversity of the group, but it did not generate intergroup discussion. Possibly, because those who explored the discussion board did not leave a comment they absorbed the information without using it. So how should we move forward with the next step? Possibly, we should ask the students to make a positive comment on four members of the group. Can you make such a demand on postgraduate students?

Next, the course material was available in an easy to read and accessible style using "*Course Create"*. However, the translation of material is not easy, especially where the text is not straightforward. Wimba say it "quickly and easily converts your Microsoft Word documents into content for your online courses". In practice what happens is conversion stops at a line number and there is no way of knowing where the line number corresponds. Therefore, it is time consuming. However, it is very simple to use. The units are indicated on the home page of the course, once located the student clicks once to get a content list for that session, a second click gives the learning outcomes of the session, and the third click provides the E-learner with the material and the activities (Diagram 8 and 9).

Diagram 8 -Table of Contents

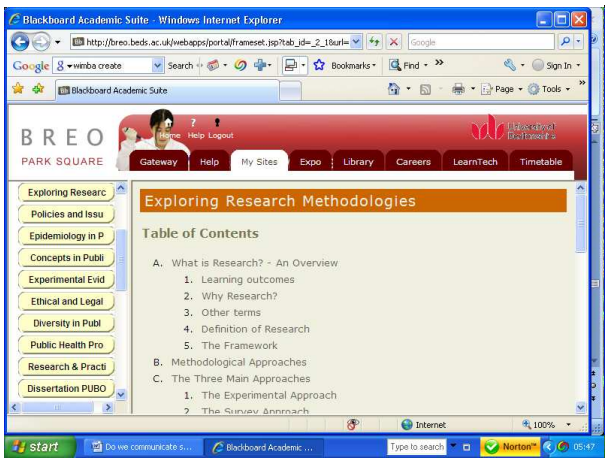
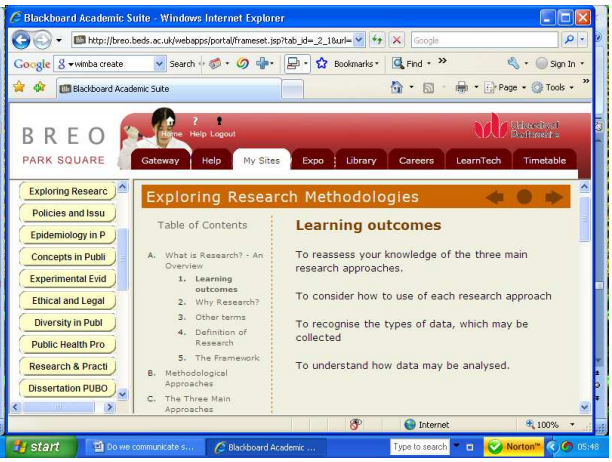


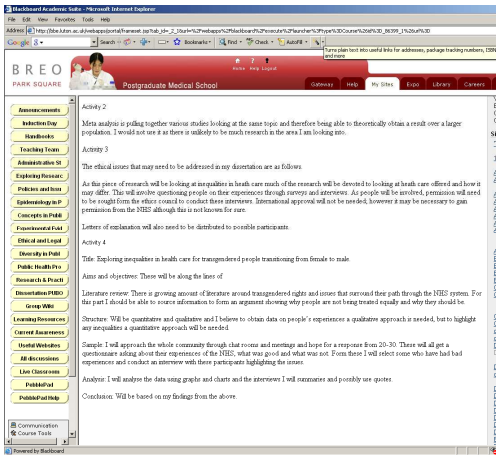
Diagram 9 – Learning Outcomes



Apart from the fact conversion is not always easy, neither is the ability of a non-computer programmer to change the presentation despite this feature being available. We would like to get away from the fact all Units look alike. We have added mini video's to offering more variety, where this has been achieved it has been view positively. The text contained activities for the e-learners to use as they wished but there was an encouragement for them to add their work to the group blog so that they could share their work. They were encouraged to use the group Wiki. It was easy to use (Diagram 10 and 11). However, there was a problem with the group Wiki in that the E-learners felt the team should respond to everything that was written. They did not seem to consider they could make comments and there was a failure to recognise it was a group asset. We tried initially to keep up with their requests, but in the end had to leave it to inter learner comment. So overall, it has not been very successful. We will need to manage more effectively next year.

Diagram 10 – Group Wiki

Diagram 11 –A Student's Wiki

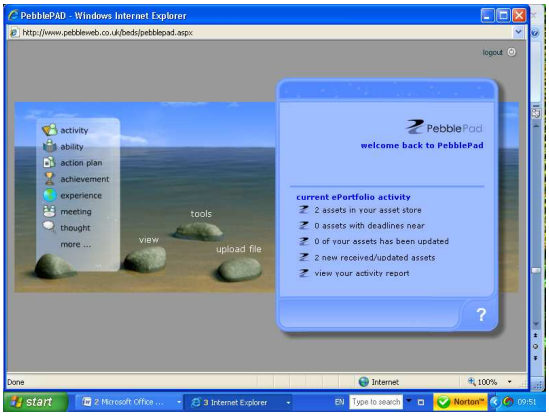


A further way of engaging the students was the use of Pebble Pad, which is an E-portfolio. It is described as a Personal Learning System being used by professional bodies (for PDP, CPD). Pebble Pad was designed for the E-learner at the centre of the system. It provides a platform to help users create records of learning, achievement and aspiration and has a reflective structure underpinning all of its core elements. Pebble Pad supports personal learning whilst providing a powerful suite of tools to improve learning in institutional contexts. Conversation, communication and collaboration are easy in Pebble Pad. Items can be shared with trusted individuals, published to group pages, or made public to the web. It is a very easy system to use apart from the need for the student to have a second login password. It is accessed via BREO but is outside the system. However, there is one major flaw in that the students must enable the team to see their work and this they frequently forget to do and then get agitated when they received no response. They have commented that it is a system more suitable to

undergraduates than postgraduates in its wordage and construction. Now, the University has chosen this system but we as a team are assessing its use.

Diagram 13 Home Page

Diagram 14 System Page



The students valued the use of Skype as a very successful way in which they could obtain instant tutorials or just simply have answers to questions. However, they use the email and audio email mainly when asking straightforward questions, as they knew there were time limits in which all team members would respond. The team made sure that the e-learners were made aware of their availability as did the administrations staff.

In conclusion, our experiences have indicated that if the E-learners are fully engaged with all the methods we use to communicate they do view themselves as belonging to *a "community of learners"*. However, we still need to ensure it becomes the normal experience for all E-learners rather than a few. So success was noted in the way the material was presented, and now the team will have to develop their abilities in relation to using the whole repertory of *Course Create*. The speed in which replies to emails were evaluated was very positive, as was the way in which Skype sorted out problems. We need to consider how the team can respond to the discussion board and Wiki's. This will have to be considered carefully as we are a very small team; how we initiate more inter group response, which would be one way of forging a *"community of learners"*. If the University is committed to Pebble Pad, adaption for postgraduate use needs to be realised. Evaluating the effectiveness of communication and this feedback will help guide future changes in teaching practice.

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Appendix 1

When, Why, and How to Use Asynchronous vs. Synchronous E-Learning **Stefan Hrastinski (2008)**		
	Asynchronous E-Learning	**Synchronous E-Learning**
When?	Reflecting on complex issues When synchronous meetings cannot be scheduled because of work, family, and other commitments	Discussing less complex issues Getting acquainted Planning tasks
Why?	Students have more time to reflect because the sender does not expect an immediate answer.	Students become more committed and motivated because a quick response is expected.
How?	Use asynchronous means such as e-mail, discussion boards, and blogs.	Use synchronous means such as videoconferencing, instant messaging and chat, and complement with face-to-face meetings.
Examples	Students expected to reflect individually on course topics may be asked to maintain a blog. Students expected to share reflections regarding course topics and critically assess their peers' ideas may be asked to participate in online discussions on a discussion board.	Students expected to work in groups may be advised to use instant messaging as support for getting to know each other, exchanging ideas, and planning tasks A teacher who wants to present concepts from the literature in a simplified way might give an online lecture by videoconferencing.