**FINAL REPORT**

#### Effective use of learning technologies (ICT) with campus-based students

##### Anita Pincas, Institute of Education, University of London Email: [a.pincas@ioe.ac.uk](mailto:a.pincas@ioe.ac.uk)

**Partners:**Professor Gunter Saunders, University of Westminster  
Dr Gwyneth Hughes, University of East London

1. **Introduction and Background**

It is interesting to compare the initial plan, and the related funding requested, with the funding offered and the actual project. The proposal offered seminars, a survey, and a website to disseminate ideas, and a training course, as follows:

The proposed seminar series will consist of 3 symposia/workshops at the Institute of Education, the University of East London, and the University of Westminster, to provide a forum of discussion among higher education staff about the use of ICT to support learning and teaching for campus students. One symposium/workshop will be held at each institution, open to anyone from each institution, and if places permit, also to other HE institutions.

The resulting report will disseminate information about current use of and/or research into teaching and learning methods with ICT on campus, using data collected form the participants as raw material. It will be posted on a website at the University of Westminster and made available as a forum for further discussion among the higher education community generally.

Short training materials are expected to result from the research.

The proposal requested £5000 in all for the project, but was awarded £1500. Modifications were therefore made to the plans, as explained in 3. below.

**2. Approaches to Blended learning**

The focus of most practice, literature and research in the use of ICT in higher education has been primarily on either the development of online materials, i.e. resources, or of distance education. The potential direct role of ICT in campus teaching has been little studied to date. The research concept is based on the teams' view that ICT could play a major role in improving teaching and learning on campus, and therefore aims to redress the balance. Further, there are significant contextual differences between using ICT for campus rather than distance use, and the team believe that these have not been sufficiently taken into account in discussions of campus use of ICT.

**3.** **The** **Project**

It was agreed with the funders that only 2 seminars would be run, and that the survey would be brief, a website would be constructed if possible, and the team would make use of the knowledge gained from the project to effect a short training course and/or to develop input into existing training courses.

Two seminars free to attendees were held (at the Institute of Education and the University of East London), each costing a little over £500, and leaving approximately £450 for the development of a limited website. A short survey was administered at each seminar, and feedback was requested of attendees.

The goals were to arouse an interest in the use of ICT on campus, to convince attendees that it would lighten their load in the long term rather than increase it, and – above all – to elicit ideas of good, simple, useful existing practice from people already implementing new approaches in their own institutions.

**4. Methodology**

Three methods of eliciting and sharing good practice were used:

a. Group discussions at seminars

b. Presentations followed by discussion at seminars

c. A brief questionnaire

The seminars were held in April and July 2003, having been publicised on the ESCalate website. The partners also used their networks to invite interested people. Gwyneth Hughes and Gunter Saunders invited their colleagues and interested students from their universities, and Anita Pincas extended an invitation to all UK and international educators studying with her in the Certificate in Online Education and Training at the Institute of Education. Each seminar lasted for a day, with refreshments and lunch provided at low cost.

*Seminar 1: Sharing good ideas in the use of ICTs on campus* in April 2003 attracted 35 members of the HE and FE education community, mostly from the UK but with 5 from Europe. The notice invited people to “come prepared

with specific ideas related to your own experiences, either questions or possible answers that could help others”. The seminar included presentations by each of the partners, and group discussions in which people from similar institutions and/or from the Certificate in Online Education & Training were split up across different groups.

The programme was:

9.30 Reg. and coffee

10 - 10.30 Introduction and overview of methods of using ICT on campus.

(Anita Pincas, Institute of Education, University of London)

10.30-11 How institutions are supporting online activities on campus.

(Gwyneth Hughes, University of East London)

11-11.30 Some case studies of online activities on campus at the University of Wesminster

(Professor Gunter Saunders, University of Wesminster )

11.30 -12 Break

12-1 Group discussions – 3 parallel group sessions.

Discussion was prompted by a handout asking people to

a. list 3 ways in which they felt that they, as individuals, could make better use of ICTs in their institution.

b. discuss ways in which those in key positions in their institution could help them develop these and other good ideas of ICT use.

1-2 Lunch

2- 3 Group discussions – 3 parallel group sessions as previously

1-2 Lunch

3-3.30 Plenary - with reports from the groups

3.30-4 Tea - finish

Although there was interesting discussion by the participants at the seminar, the team felt that very few people had come with ideas for good practice. The majority appeared to be fairly well acquainted with the fundamental technologies available to them, but were seeking inspiration for application in their own contexts. This influenced the decision on how to arrange Seminar 2.

The plenary session included a lengthy discussion of the input fields suggested for the proposed interactive good practice ideas website. The team noticed that it was difficult for some people to envisage the value of such a website, but nevertheless believe that if it could be developed as a practical tool, its value would become evident. Feedback on the seminar was generally favourable, though some people felt it should have been more tightly focussed.

***Seminar 2: Blended Learning – case studies and examples in July 2003 attended by 65 members of the HE education community***

Information and communication technologies are increasingly used on campus often as optional ‘add-ons’ to face-to-face teaching (Saunders and Pincas 2003) Now blended learning and multiple mode are being presented as the way forward in providing flexible and accessible learning for a widening audience. However, blended learning is more than merely mixing online learning with face-to-face methods. The term ‘blend’ indicates that there is a seamless transition between the different modes and it has been suggested that the learner should not feel any disruption as they move between the classroom and the Web.

Learners also need to understand the rationale for a blended course and there is evidence that a poorly blended course can cause confusion, especially for weaker/disadvantaged students (Hughes & Lewis, 2003).

This event aimed to examine the different ways that on-campus and off-campus learning can be ‘blended’ and to consider issues such as cost and the effectiveness of blending.

**Programme**

|  |  |
| --- | --- |
| 12.30 pm | **Lunch and registration** |
| 1.30 | **Welcome and Introduction**, Professor Suzanne Robertson, UEL |
| 1.45 | **Costing Virtual Learning**, Professor Paul Bacsich, Director of Special ProjectsUK e-University |
| 2.15 | |  |  |  | | --- | --- | --- | | Room 001 | 001A | 030 | | Francesca Helm,  **Group to group video-conferencing** | Jude Lubega  **Blended learning** | Mary Newman *et al*  **‘Going to University’ - replicating the experience online** | |
| 3.00 | Tea break |
| 3.15 | |  |  |  | | --- | --- | --- | | Room 001 | 001A | 030 | | Gill Robinson,  **Using interactive flash components to support practical teaching in physiotherapy** | Lynda Lewis, **Online and face to face**  Simon Tucker**,**  **Towards Blended Learning: evolution of a Distance Learning course** | Jenny OLeary & Susan Douek, **Career Management Skills**  Tim Jackson & David Rowsell,  **Blended use of ‘Chat’** | |
| 4.00 | **Plenary: How well does blended learning work in practice**?  Panel: Suzanne Robertson, Paul Bacsich, Anita Pincas, Gunter Saunders.  Chair: Gwyneth Hughes |
| 4.30 | **End** |

The introduction by Professor Robertson traced the emergence of blended learning from campus-based, distance learning and the more recent e-learning developments in HE. She compared a learning blend with a whisky blend to indicate that ‘blends’ can be very ordinary or can be of exceptional quality.

The next speaker gave an account of the use of Activity Based Costing in a JISC project on costing virtual learning. The argument that e-learning needs careful costing applies just as much to blended learning.

**Presentations**

These gave a range of interpretations of blended learning. While some looked at online courses which had face-to face sessions mixed in, others looked at how e-learning could enhance campus delivery. In one example precious lab time was saved in practicals by allowing learners to ‘practise’ using instruments online before working with the actual instruments. In another, student online discussion improved problem solving assessments. For a summary of presentations see Appendix 2.

In the plenary the potential and the problems of blending learning were discussed. There were clear benefits from increasing flexibility and improving communication and the possibilities of reviewing and enriching face-to –face learning. Problems such as the rigidity of timetabling, lack of information on how to blend and problems with access to e-learning were highlighted.

***Feedback from the event***

Feedback forms were completed by 39 of the 65 participants.

While 77 % of respondents agreed that the issues were presented clearly by the main speakers, and 62% agreed that the session met their expectations, only 36% agreed that that they had learnt much that could be put into practice. Indeed 21% disagreed with the latter statement.

Feedback from the first group of demonstrations was satisfactory for each session with 59% agreeing that the issues were presented clearly. Only 51% agreed that the session was sufficiently interactive and that the input between discussion and was about right. The latter comment reflects the fact that in one session the speakers presented for the full 45 minutes without leaving time for discussion even though clear instructions for a limit of 20 minutes for the talk had been given to all presenters.

The second set of presentations received a more favourable response with 77% agreeing that the issues were presented clearly and 69% agreed that the session met expectations. 64% agreed that the session was sufficiently interactive and 62% agreed that the balance between input and discussion was about right. One of the speakers was identified as weak and there were requests for more time for discussion especially where 2 demonstrations were given in a 45 minute slot.

Feedback overall was positive with comments that the event was “well–organised and interesting”, “very enjoyable” and “please do more events like this”.

Participants also requested that copies of the presentations be made available after the event and these are being circulated with the speaker’s permission.

Reference

Hughes, G. & Lewis, L. (2003) Who are successful online learners? Exploring the different learner identities produced in virtual learning environmentsin Cook, J. and McConnell, D. (Eds) *Communities of Practice. Research Proceeding of the 10th Association for Learning Technology Conference* The University of Sheffield and Sheffield Hallam University, UK

Saunders,G. and A. Pincas (2003) Learning Online on Campus, Learning Partners, ISBN 1 899692 16 9

**6.** **Summary Analysis of Questionnaires (For a copy of the questionnaire see appendix 1)**

There were 30 questionnaires completed. Of these 15 were submitted by academic staff and 15 non-academic staff. Most of the non-academic staff (12) described themselves as learning technologists whilst the remainder were involved in research into the use of ICT in teaching and learning. Almost all of the learning technologists were involved in training both academic staff and students in the use of online systems and delivery.

**About themselves and what they do online**

Two-thirds of the respondents indicated that they used interactive web based materials in teaching and learning/training.. However, very few qualified this by saying that they used interactive materials. Rather the majority were using ICT interactively through discussion boards and online formative testing. Only 2 respondents had used video-conferencing to teach or support teaching and learning. Interestingly, only 3 of the respondents who were academic staff considered that they used the WWW interactively in their teaching. Their current use seemed confined primarily to using external websites as sources of information and to the provision of mainly static web pages as resources for their students. This disparity between academic and non-academic staff was borne out by a follow up query. When asked to select statements which best fitted their current use of ICT in teaching and learning only 4 out of the 15 academic staff (compared to 11 out of 15 non-academic staff) indicated that they ‘provided interactive learning’, although almost half of them claimed to use online discussion boards to promote interaction with and between students. Curiously the only around half of the non-academic staff indicated that they ‘promoted discussion via online means’.

**About online learning developments**

The number of non-academic staff who felt that online learning should become a mandatory part of all undergraduate programmes was double the number of academic staff who felt this way. Overall the percentage of respondents advocating a ‘mandatory’ approach was small (20% of academics, 40% of non-academics) with reasons given (see table 1) mainly focusing on the need for variety in teaching and learning and the fact that forcing online delivery to happen may lead to a ‘one size fits all’ approach. Around half of the staff from each category thought that online delivery should not be targeted at any specific group of students whilst those who thought that it should, mostly suggested that postgraduate students would form the most logical target group.

Respondents were asked to select from a list of options what they might do with money awarded to them to develop their approaches to teaching and learning online. Around half of all staff of both types indicated their preference would be to develop ways to ‘enable effective discussion online’ with one third of the academic staff indicating that their preference would be to ‘exploit

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| Stated Reasons for not advocating a mandatory approach to online learning development |
| * The nature of the subject I teach requires a great deal of practical work * Teachers should be free to use appropriate course structures - encourage ICT if appropriate but don’t force everybody to use ICT * Staff shouldn't be forced to use online learning as this could lead to poor courses and negative experiences for students * Variety is essential * Would not encourage people by making it compulsory * Traditional teaching can still work well * We have been successful by offering staff a range of methods and resources. Gradually all are using ICT but in creatively different ways. Mandatory might lead to one style fits all. * ICT is not suitable for all subjects or students * At present doesn't suit all teaching staff |

**Table 1**

computer based testing’. Only 2 of the 30 respondents indicated that their preference would be to use the money to develop the use of video-conferencing. In a separate question ‘Would you like to be able to make use of computers and information technology for the automatic marking of online tests and the provision of automatic feedback to students’? no respondent answered no with 80% saying yes and the remaining 20% (spread equally among the 2 staff types) not sure. On qualifying their response most respondents indicated either how important immediate feedback could be to the learning process or how much time could be saved in mundane marking of factually based assessments. It was noticeable that non-academic staff were more likely to highlight the latter as their reason for wishing to mark work using automatic methods.

Most of the respondents described their institutional organisation as devolved (66%) and by far the greatest majority thought that the most appropriate way of providing staff with support for online learning developments was by the provision of both technical and pedagogic experts at local level (90%). There was no correlation between the nature of the organisation (central versus devolved) and preference for the location of experts. Almost all respondents considered the best way to provide induction for students into online approaches was by the provision of sessions in induction week. However almost as many respondents also thought that institutions should also ensure that some online learning occurred at all levels and/or in all modules of a degree course.

Respondents were asked to name factors that they felt were inhibiting the development of online materials and systems on-campus. A range of points were made which could be grouped into the categories listed in table 2. Most however focused around the concern that not all students would have access to the necessary hardware and the view that institutions, and especially their academic staff, were still too ‘traditional’ in their view of teaching and learning. Both of these main points were raised with roughly equal frequency by

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| Factors limiting the development of online learning |
| * Student access to the necessary hardware * Tradition and staff unwilling to consider change * Technology failing * Insufficient time * Lack of technical support * Fear of failure * Confused strategies * Lack of incentives * Subject differences * Lack of understanding of copyright, IPR and accessibility issues |

**Table 2**

academic and non-academic staff. In a follow-up question respondents were asked to consider a list of potential factors inhibiting online learning development on-campus and to rank these with the most inhibiting first. Details of which factor respondents found most inhibitory are shown in table 3.

|  |  |  |
| --- | --- | --- |
| Factor inhibiting development | No. academic respondents ranking this most inhibitory | No. non-academic respondents ranking this most inhibitory |
| Lack of rewards | 2 | 2 |
| Unreliable ICT infrastructure | 1 | 2 |
| IT support | 3 | 2 |
| Not knowing how best to use ICT | 4 | 6 |
| Prioritisation on research | 1 | 2 |
| Little perceived benefits of ICT use | 0 | 0 |

**Table 3**

Half of the non-academic respondents (6) cited ‘few perceived benefits for using ICT’ as the second most inhibiting factor whilst only 2 academic staff ranked this choice second. The relative importance of all 6 options provided to respondents, based on the cumulative scores obtained from the rankings, are shown in table 4.

|  |  |  |
| --- | --- | --- |
| Factor inhibiting development | Relative importance  Academics | Relative importance  Non-Academics |
| Lack of rewards | 13.5 | 16 |
| Unreliable ICT infrastructure | 17.5 | 6 |
| IT support | 20.5 | 13.5 |
| Not knowing how best to use ICT | 20.5 | 24 |
| Prioritisation on research | 14 | 21.5 |
| Little perceived benefits of ICT use | 13.5 | 19 |

**Table 4**

Although both academic and non-academic respondents seem to agree that ‘not knowing how best to use ICT’ is the most significant factor inhibiting development on campus, there are differences elsewhere. For example academic staff seem more concerned about the reliability of the ICT infrastructure than non-academic staff.

With factors inhibiting the development of online approaches on-campus in mind, respondents were asked whether institutions should do certain things to promote the use of ICT on-campus. Around 70% of all respondents thought that institutions should set targets for the development of online learning and that some elements of online learning should be included in all new programmes. A similar percentage thought that the capability to use/develop the simplest forms of online learning should be a requirement of all academic staff.

**7. Dissemination**

A paper is in preparation giving a summary of some of the interesting points that have arisen.

**8. Conclusions**

Our hypothesis that campus staff need practical ideas, rather than general theoretical or technical training, for the use of ICTs on campus was confirmed. However, there are some problems sharing ideas since many lecturing staff do not attend seminars to see demonstrations of practice in teaching and learning. Also we found these kind of demonstrations can easily turn into lectures and not involve the level of discussion that would help participants apply new ideas. Putting ideas online is possible but at our first seminar it was agreed that another website which provided examples and case studies of the use of ICT on campus was not needed. Making more software, online materials etc available for sharing e.g. through the LTSN subject centres could be a solution as lecturing staff might be keen to download materials whereas they would not be so enthusiastic about reading case studies.

There also needs to be much more discussion on the much touted term ‘blended learning’. The term is often used to describe mixed mode delivery where a course mixes face-to-face with some online delivery (usually of content). The term ‘blended’ implies a seamless transition between the different modes so that online work would be a continuation of face-to-face, and vice versa, and not an adjunct or optional extra. Examples of this more sophisticated approach to campus-based online learning are not easy to find: only 2 out 8 presentations of blended learning at the second seminar would fall under such a proper definition of blended learning.

**9. Outcomes for grant holders**

1. The key expected outcome for Anita Pincas was that the short module “ICT on campus” with Gwyneth Hughes as tutor in the Certificate in Online Education and Training will be enhanced. An unexpected outcome from this grant and another on the use of CHAT in education, was for her to be invited by the Manager of ESCalate, Arlene Gilpin, to join her in proposing a new project to evaluate the small grants programme in which approximately 32 projects had been involved. The new proposal will commence work to assess a variety of impacts the small grant projects may have had, at the ESCalate conference for small grant holders in October 2003.
2. An outcome for Gwyneth Hughes was towards the Application of Learning Technologies short course at UEL, which has been accredited by SEDA as an Embedding Learning Technologies Award, and is based on participants’ development projects which usually concern including some form of online learning as part of a campus-based course. However, the issue of ‘blending’ has not been addressed so far. As a result of the project the course tutors will raise the question of how to make the transitions between learning online and learning on campus seamless so that learners are not disrupted as the mode changes. Similar questions will be posed for a specialist topic for the OET course and the model outlined below will be introduced. Gwyneth Hughes suggests that 3 approaches to blended learning could be developed:

*Stage 1* N*o blend*

Traditional campus learning is unchanged by use of e-learning as a supplement e.g. though making course materials available electronically.

*Stage 2 Coarse Blend*

Here links between on-campus activity and e-leaning are made and e-learning begins to be integral to the course. For example, learners might be required to do some preparation online before attending a face-to-face session.

*Stage 3 Customised Blend*

In this scenario campus learning and e-learning work seamlessly together and learners can map out their learning and create a balance between campus and online learning to suit them. An example could be presenting the same learning materials in print and online for a group task in which the learners are given choice as to how to complete the activity and how to blend the two modes

1. ALT workshop on Blended Learning. As a result of the workshop, Gwyneth Hughes has proposed an ALT workshop on blended learning in conjunction with Oxford Brookes University. The workshop is planned for Easter 2004.
2. An outcome for staff at the University of Westminster, represented by Gunter Saunders, has been an enhanced awareness of some of the issues associated with the integration of technology into teaching and learning on-campus. In addition the staff from the University who attended the seminars found it most useful to be able to share, with other practitioners from other institutions, the difficulties and problems they face in the use of ICT.

**Appendix 1 Questionnaire on the Future Development of online learning to support on-campus delivery**

**Part 1 About yourself**

|  |  |
| --- | --- |
| **1.** Your Name |  |
| **2.** Your University and Department |  |
| **3.** What subject area(s) do you teach? |  |
| **3.** Which of the statements below do you feel best describes your current use of the World Wide Web or Intranet in teaching and learning?  ***Circle the letter beside the statement that best fits what you do:***   1. ***I do not use ICT at all*** 2. ***I use other people’s websites as sources*** 3. ***B + I provide mainly static or read only web pages*** 4. ***I use interactive web based materials*** | |
| **4.** If you circled letter D in answer to question 3 please write a few sentences below to explain how the materials/systems you use are interactive. | |
| **5. Which of the statements below do you feel best describes your current use of computers and information technology in teaching and learning?**  ***Circle the letter beside the statements that best fits what you do:***  **I use computers and information technology (ICT) to:**   1. **produce handouts and overhead transparencies/slides** 2. **communicate with students by email** 3. **promote discussion via online discussion/bulletin boards** 4. **distribute information via mainly static web pages** 5. **provide interactive learning (e.g. online assessment tools)** 6. **communicate with students by video-conferencing or** 7. **I do not use ICT at all currently** | |

**Part 2 About online learning developments**

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| --- |
| **6.** Should online delivery become a mandatory part of all undergraduate degree programmes in your institution? Please circle the best response  Yes   No Not Sure |
| **7**. Please explain in a few sentences the reasons behind your answer to question 6. |
| **8.** Do you think that the development of online delivery on-campus should be targeted to specific student cohorts?  ***Circle the letter beside the statement that best represents your view:***   1. ***Not at all*** 2. ***at year 1 UG courses*** 3. ***at year 2 UG courses*** 4. ***at year 3 UG courses*** 5. ***At certain subjects only*** 6. ***At postgraduate level*** |
| **9.** If you had been awarded an ILT teaching fellowship to develop your use of online learning would you use the funding to:  ***Circle the letter beside the statement that best fits what you would do:***   1. ***Enable video-conferencing with students*** 2. ***Exploit the use of a computer based testing tool*** 3. ***Enable effective online discussion*** 4. ***Something else*** |
| **10**. If you circled option D above please say what that ‘something else’ might be. |
| **11.** Would you like to be able to make use of computers and information technology for the automatic marking of online tests and the provision of automatic feedback to students? Please circle the best response  Yes   No Not Sure |
| **12**. Please explain in a few sentences the reasons behind your answer to question 6. |
| **13.** Which of the options listed below do you think would be the most appropriate/best way to provide staff with support for the development of online learning on-campus?  ***Circle the letter beside the statement that best represents your view:***   1. ***More technical experts at local level*** 2. ***More technical experts at central level*** 3. ***More pedagogic experts at local level*** 4. ***More pedagogic experts at central level*** 5. ***More technical and pedagogic experts at local level*** 6. ***More technical and pedagogic experts at central level*** |
| **14.** Would you describe the organisation of your institution as centralised or devolved? Please circle one  Centralised Devolved |
| **15.** How do you think one should provide induction for students into online learning?  ***Circle the letter beside the statement that best represents your view:***   1. **By provision of sessions in induction week** 2. **By integrating some online learning into all modules/courses** 3. **By providing optional courses on online learning approaches** 4. **Ensuring some online learning occurs at all levels** 5. **There is no need to provide any induction into online learning approaches** |
| **16.** What do you think are the most important factors limiting the use of online materials and systems at campus based institutions?  ***Please write your answer below*** |
| **17.** Do you think that institutions should set targets for the development of on- line learning provision?  Yes   No |
| **18.** Do you think that institutions should require some element of online learning to be included in all new programmes?  Yes   No |
| **19.** Should the University make a basic ability to use/develop the simplest forms of online learning a requirement of all academic staff?  Yes   No |
| **20.** What mechanism(s) do you think that institutions should have to ensure that expertise and good practice in online learning is disseminated?  ***Please write your answer below*** |
| **21.** We are planning a “Sharing Good Ideas for the use of ICT” database. This will be a web based resource available on the Internet for people to browse. Anyone will be able to add an entry. The emphasis will be on brief descriptions of how individual teachers have used ICT to support/underpin and hopefully improve a pedagogic activity. The intention is that contributions will be grouped according to ‘activity’ (e.g. assessment, tutorial, practical exercise etc)  We are especially interested in hearing your views about the ‘etc’. Please take a look at the form which people will fill out online in order to make their entry into the database. Add here any types of activity you think we have left out . |
| **22.** If you have any further general comments to make about the development of the use of Information and Communication Technology (ICT) and its use at for on-campus teaching and learning, please write them below  Thank you. |

**Appendix 2, Seminar 2, Summary of Presentations**

**Lynda Lewis, University of East London**

**Online and f2f: methods for embedding flexible tutoring into an undergraduate course**

I would like to share the experience and receive feedback on the new undergraduate course 'ED321 CMC in Education: pedagogy and practice'. This course ran for the first time this Semester and has had a very positive response from the students. Although the unit was 'run' entirely online through a variety of different tasks which were both collaborative and autonomous; I did hold 3 face-to-face sessions with the students to help consolidate the literature and ensure technical issues were dealt with.

The students seemed to like the 'blended' mode - in particular the flexibility that e-learning gave them. Being 3rd year, final semester students they were used to f2f and I think the 3 sessions held here were useful to help them overcome fears, concerns - and to meet to those they had been working with online.

**Tim Jackson & David Rowsell, London Institute**

**Blended use of ‘Chat’**

We want to explain how we could use it for both project support and viva / peer assessment during a project that is undertaken by both our f2f and (future) on-line FdA fashion marketing students. The f2f course has been running for some years, but the online version is due to begin in October. Our proposal is about how we plan to use chat (in Blackboard) as part of a collaboration between students of the same course but from f2f and on-line modes.

**Gill Robinson, Huddersfield University**

**Using interactive flash components to support practical teaching in physiotherapy**

The use of online learning approaches means that content can be delivered in a variety of styles and contexts using a range of text and visual methods allowing students to adopt learning styles most appropriate to their own needs. Students can access the learning materials at their own pace and as frequently as necessary to reinforce their learning and to provide background context as the application of the theory is explored within practical and clinical settings.

Within the online learning material a range of interactive multimedia elements have been developed to support students’ use of a range of electrotherapy equipment. These elements are based on digital images of the equipment that have been converted into Flash animations with which students can interact to see the effect of adjusting the various controls and switches on the particular piece of equipment. This has had significant positive impact on staff time, and the number of staff required to demonstrate techniques in practical sessions at any one time. Students get the response and support they require (as often as they require it) at the time they need it.'

**Jude Lubega, Reading University**

**Blended Learning**

Blended learning combines traditional learning with e-learning. In this study we have analysed the examination performance of two cohorts of students one who used only traditional learning and the other who was exposed to blended learning. We show a statistically significant improvement of an average mark of 4.09% in the performance of the students who benefited from blended learning as opposed to those who were just exposed to traditional learning.

**Jenny OLeary& Susan Douek, University of Westminster**

**Career Management Skills - enhancing learning and employability at the**

**University of Westminster**

The Careers and Student Employment Service (CaSE) at Westminster University has a potential client base of over 20,000 students spread over 4 campuses, not to mention our graduates who also call on our services. CaSE has developed a career management skills module that is web based but delivered through Blackboard. Interactive face-to-face workshops complement the self-directed online learning. For undergraduates, the module is run over three years, to reflect the fact that it takes time to develop career management skills. Using Blackboard makes it easier to integrate and customise our material into different departments.

Features include development of internet research skills; computer scoring for testing learning styles and association of different careers with transferable skills and interests; students are encouraged to keep an online PDP portfolio as they work through the course. We hope to develop the module for wholly online use with graduates and to introduce the use of discussion boards to further support our students and graduates.

We would like to show how web-based learning materials can be delivered through Blackboard giving both tutor and student greater versatility, e.g. in accessing other websites as required for the particular learning or working through various personality assessments such as learning styles where the computer scores the result and gives the appropriate analysis (not possible using the quiz feature of Blackboard**).**

**Simon Tucker, University of East London**

**Towards Blended Learning: evolution of a Distance Learning course**

On the Distance Learning course for MSc Architecture several tools are being used for seminars and practicals. These include the chat-room, discussion boards and self-tests. Some examples will be given of these. The attendance and DL modes seem to have become more 'blended' over the last two years, so a second aim of the presentation is to describe how this change in perception of the two modes is leading to opportunities to develop and expand the course.

**Jules Cassidy, Jacqueline Mitchell, Mary Newman and William O’Sullivan, University of East London**

**‘Going to University’ - replicating the experience online**

This demonstration will be based on our experiences of working with a group of level one students on a part-time part-distance learning programme using a blended learning approach. This course is the first module of the Certificate of Higher Education in Information and Communication Technologies. Last year we obtained funding for a research project from European Social Fund (ESF) to explore and assess the results of relocating specific components of the face-to-face elements of this unit to a virtual learning environment.

We will present our experience of working with students in small groups using a text chat facility in WebCT to replace F2F seminar activities as an extension of a valued experience of ‘going to university’ for these students.