Developing higher education online short courses using learndirect materials: a case study

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Introduction

Political, moral and economic pressures are forcing Higher Education Institutions (HEIs) to investigate new approaches to widening participation and access to Higher Education (HE) among under-represented groups. There are an increasing number of HE initiatives using information and communication technology (ICT) to reach out to individuals who wish to return to education.

This study examines student feedback on short courses developed by the Department of Continuing Education at the University of Hertfordshire (UH) using **learndirect** online materials. These courses were developed as part of an initiative to investigate how **learndirect** materials could be used in HE level programmes to widen access to HE.

The aim of the initial pilot project (2001) was to provide prospective higher education students with the IT and study skills necessary for HE study through a flexible programme. Its objectives were:

- to design and deliver short courses using **learndirect** online materials
- to attract new learners into higher education
- to build the students' confidence in both IT and study skills

This study examines whether these aims and objectives were met. It also examines how the findings from the pilot project and a follow-on project compare to the findings of comparable studies. In particular this study considers:

- barriers faced by students and potential students accessing online courses
- barriers faced by HEIs developing online provision which embeds third party online learning materials
- students' perceptions of the benefits of studying online.

Background to the pilot project

Research into the IT skills of undergraduates (University of Hertfordshire, 2000) indicated that some students lacked the necessary IT skills to successfully undertake HE study. This research led the Department of Continuing Education to bid for funding under the Higher Education Funding Council of England (HEFCE) publication 2000/15 to investigate the feasibility of offering online IT and study skills short courses aimed at prospective HE students. This HEFCE funding, which was available from March to July 2001, was to pilot the embedding of **learndirect** products within HE provision. The University for Industry (Ufi) was established in 1997 to offer flexible learning provision through a network of learning centres (including Further Education colleges). **Learndirect** is the brand name for the learning products Ufi offers.

Development phase (2001)

During 2001 UH developed the first two of a suite of university credit-rated courses using **learndirect** materials, Introduction to IT skills (100 hours) and Developing IT skills (150 hours). Of the learning materials within these courses, 70% were offered online. These online materials were supplemented by additional learning materials and an HE level assignment. There were no face-to-face sessions, with the students receiving tutor support via e-mail or telephone.

The courses used formative self-test online assessment. The final summative assessment (including a reflective learning log) was marked by a UH tutor. The use of a draft assignment, which was returned

to the student with a tutor's comments, helped to build students' confidence in writing university level assignments.

During the first year of the pilot project students were given the option to access the **learndirect** materials through various e-learning centres in Hertfordshire, UH's Learning Resources Centres or from their home or place of work.

The project was extended in 2002 to include a personal skills portfolio of 'bite-size' courses. The aim of this suite of courses was to provide a flexible mode of study for those in the workplace wanting to experience higher education study. These bite-sized courses were of 50 to 100 hours duration with 20% of the material offered online. The pilot of the Interpersonal skills course was delivered from March – July 2002. These courses included workshops and face-to-face tutor support.

Profile of students undertaking the Introduction to IT skills and Developing IT skills courses (Academic year 2000/2001)

Twenty-one students enrolled on each of the IT courses

Gender of students		
Men	10	24%
Women	32	76%
Ethnicity of students		
White	25	60%
Black African	2	5%
Indian	1	2%
Pakistani	1	2%
Asian other	2	5%
Not stated	11	26%
Age range of students		
Under 21	1	2%
22 – 30	7	17%
Over 30	34	81%
Education background of students		
Postgraduate	1	2%
Degree	10	24%
HND/HNC/Professional	12	30%
A level (or equivalent)	6	15%
GCSEs (or equivalent)	2	5%
None	7	17%
Not indicated	3	7%

Methodology

Questionnaires were sent to all students at the end of the academic year 2000/2001 and eighteen questionnaires (43%) were returned. The questionnaire contained questions relating to students' perceptions of online learning, in particular, access issues, the quality of the learning materials and the support they received. Additional open questions allowed the students to comment more fully. Comments received from students' reflective learning logs have also been included in this study.

Barriers that face potential learners and the HEI

Other studies into the use of ICT to widen participation and access have commented on the many barriers faced by adult returners to education (Selwyn, Gorard and Williams, 2002; Policy Action Team 15, 2000; Harasim L, 2000; Ryan, Scott, Freeman and Patel, 2000; Seale and Ruis-Rui, 2001). These barriers include:

- Financial (either direct costs or indirect costs to the individual)
- Technical
- Fragmented funding
- Access problems, which can include centres, facilities and equipment
- Lack of motivation and feelings of isolation

If the potential learners are in employment there may also be issues to do with the time and space available at work to learn (Sloman M, 2001; ASTD/Masie Center 2001). Students on the Interpersonal Skills course were all in employment and many of them did find that work pressures often meant that they could not allocate as much time as they wanted to the course and that their desk was not an ideal place to attempt to learn.

The HEI may also face certain barriers to developing successful online programmes (Universities for the North East, 2001; McGorry S, 2002). These barriers include:

- Inadequate funding
- Development costs
- Technical issues

The students and the HEI staff within this study encountered the following barriers.

(a) Financial barriers

During the pilot year when no charge was made for the courses 42 students were easily recruited. 22 additional potential students were put on a waiting list as they had applied too late. In the second year a charge was made for the courses and only one of the potential students on the waiting list decided to enrol. The others all cited the cost of the course as being the main reason for not taking the course. The students' feedback reinforces the observation within the HEFCE evaluation (Brown and Clark, 2002) that *'programmes aimed principally at widening participation are less able to attract a fee'*.

Some students could not afford the costs involved in accessing the internet at home and they preferred to use the free access at learning centres, UH's facilities or libraries.

(b) Technical barriers

There were often time limits on internet usage imposed by learning centres and local libraries. Students who were constrained in their access to the internet felt that their progress on the course suffered. Having no access to a computer may have made some potential students more reticent about starting the course.

Students found that some Internet Service Providers (ISPs) regularly disconnected them during **learndirect** sessions leading to students losing their bookmarked places within the course. During the first few months of the course it could also take over 30 minutes to load pages from the **learndirect** website. Some students did find these technical problems difficult to surmount but others did persevere and complete the course.

The **learndirect** online materials were not totally Apple Mac compatible, which meant that students with these computers were excluded from the courses.

For course developers there were delays in course development due to the **learndirect** website frequently crashing and problems accessing the materials.

(c) Funding issues
Ufi makes a charge to the training provider for each student accessing each set of **learndirect** materials. The most expensive course developed by UH included £250 worth of **learndirect** materials. The HEFCE bidding document had indicated that a *substantial* amount of **learndirect** materials should be used. The funding received from HEFCE did not cover the developmental phase or the purchase of the more expensive materials; these costs were met by the HEI.

Other HEIs taking part in the HEFCE/Ufi pilot found that the cost of the **learndirect** materials coupled with the HEFCE funding band made the courses uneconomic to run (Brown and Clark, 2002).

> *Most institutions argued that HEFCE price band D funding was insufficient to make these pilot programmes viable given the level of charges for **learndirect** materials.*
>
> *It is clear that Ufi's approach of charging institutions for each user hour makes the use of **learndirect** materials expensive compared to other options and limits the amount of material that can be used within a programme.*

(d) Access issues
The majority of the students were very happy with the support they received at the learning centres but students were not always satisfied with the amount of time they were allowed for each session.

> *At the e-learning centre, while the staff did their best to accommodate me, I was in competition with all the other college students. In addition my time on the computer was limited to periods of two hours … at the library the time limit was one hour and it had to be booked in advance*

(e) Lack of motivation and feelings of isolation
A few students did not access the online materials or make any contact with their tutor or reply to any of the tutor's communication by e-mail or telephone. It is therefore not possible to comment on why they failed to make progress on the course. A few students commented that they had started the course in good faith but had had to stop because of work or other commitments or because they felt that the course did not match their learning needs.

Some students on the IT courses missed the contact with other students.

> *… there was no interaction or exchange of ideas or problems, which could have been useful at times; this was particularly the case when I struggled with a particular task.*
>
> *It would have helped me to have a colleague to discuss progress with and to support and be supported by*

(f) Administration
This pilot project found that the administration requirements were extremely demanding, which added to the resources needed to support the project. This was also the conclusion of the HEFCE evaluation report (Brown and Clark, 2002).

> *The need for two registrations and in some cases two online systems and support systems creates uncertainty in the minds of students, even when, as is often the case, the institution handles much of the bureaucracy on behalf of the student.*

Benefits

(a) Benefits of studying online

Various studies (Harasim , 2000; Honey, 2001; Seale and Ruis-Rui, 2001; Selwyn, Gorard and Williams, 2002) have investigated the advantages to students of studying online. These benefits include:

- Accessing learning at anytime
- Being able to be self-managed

Students' feedback from this study indicates that they appreciated being able to fit learning around other commitments and being able to learn when they wanted to.

> *The flexibility of the course is really important to me as it can be slotted into my routine without too much difficulty*

> *This type of learning appealed to me because I have been able to do all of my work at home at any time of the day enabling me to work around employment and family needs*

Students who successfully completed the course commented on the learning strategies they developed to deal with learning online.

> *I quite rapidly completed the first lesson. This is easy I thought, that is before I attempted the post assessment. I then realised that I had read the pages too quickly and had not digested the information and so I could not apply it to the questions. So I started all over again and made some notes so that I actually learnt what was being said and understood it*

(b) Benefits to the HEI

Brown and Clark (2002) observed that the HEFCE pilot had provided added value that would not have been readily available to HEIs by other means:

- *It has enabled them to offer a progression route into HE for those who have progressed through the **learndirect** FE portfolio of materials.*
- *It has enabled them to tap into new markets*
- *It has enabled them to test out the costs of online learning without having to develop all their own materials*

This project has given the Department of Continuing Education invaluable knowledge and expertise of using online materials within UH validated courses. It is unlikely that the department would have developed online courses in 2001 if the HEFCE funding had not been available.

Meeting the aims of the project

(a) To design and deliver short courses using learndirect online materials

These courses were successfully designed and delivered during 2001 and further online courses have been developed.

(b) To attract new learners into higher education

22% of the students declared that they were educated to GCSE (or equivalent) level or had no qualifications. This group would probably have had little experience of studying at HE.

(c) To build the students' confidence in both IT and study skills

The following charts show the students' perception of the change in their IT skills. The vast majority felt that there had been an improvement in their skills.

I am now more confident in Excel and I enjoyed creating slides in PowerPoint, which I have never done before. In Word, I found many useful tips for shortcuts to editing and formatting text and I generally feel much more confident in using all these programmes and the computer as a whole

Eleven students (26%) progressed to HE study after completing the IT course. Comments from those students indicate that they did find the course beneficial.

Excellent – very relevant to the PGCE I am now doing

I feel that I am beginning to make more use of the computer and this will be helpful when I am writing assignments during my course at university

As a mature student with a young family I was able to fit my family commitments in with my return to study

Introduction to IT skills – students' perceptions of the changes in their IT skills (Word and Excel)
Figure 1

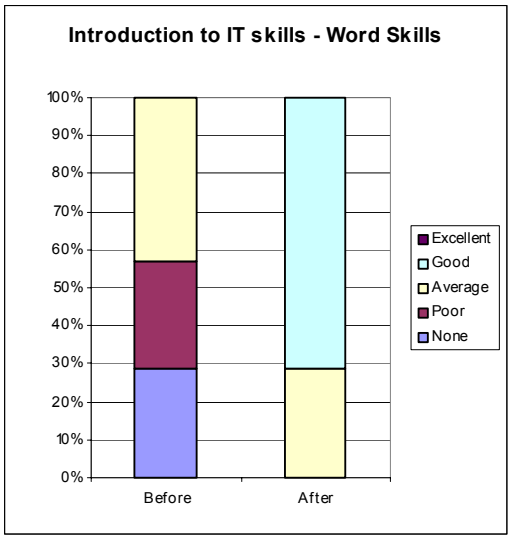
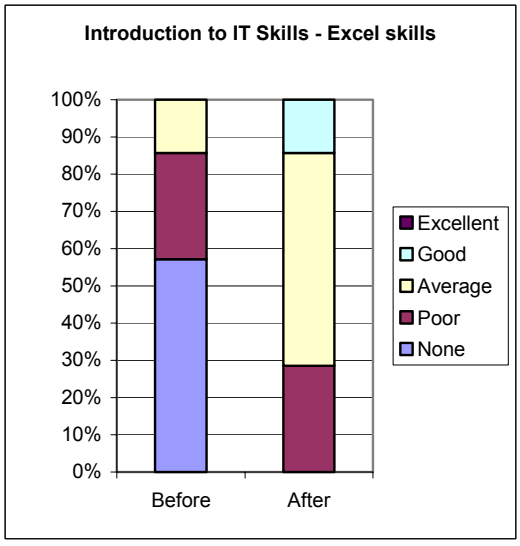


Figure 2



Development of IT skills – students' perceptions of the changes in their IT skills (Word and Excel)
Figure 3

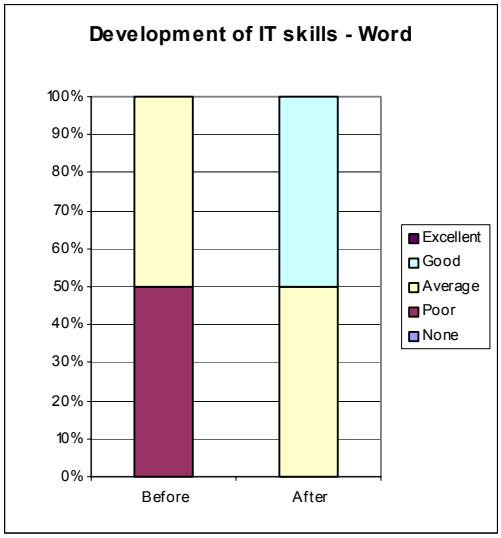
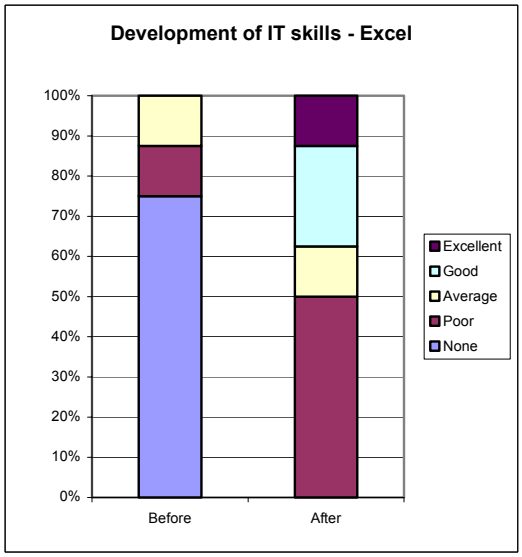


Figure 4



Students also felt that there were improvements to their Windows, PowerPoint and internet skills. Those who completed the assignment all rated their IT skills as having improved to average or above. The assignments were generally of very high standard with the level of IT skills at an intermediate level or above. The external marker from Birkbeck College, University of London stated that *'overall the pilot seems to have been a success and a positive experience for the students'*.

Conclusion

This study supports findings from previous studies which investigated barriers to online learning. Technological developments often need time to stabilise before they can be used within programmes being offered to students. Some students, especially those who are not confident, find it difficult to overcome PC and internet access problems. The instability of the initial **learndirect** products and the Ufi website did lead to increased tutor involvement and student frustration. It is also often difficult to

cost projects accurately when there are unknowns such as new systems (Ufi) and untried products (**learndirect**) which need time to stabilise.

The feedback from the students shows that a minority of students did not enjoy learning online but that others found it an enjoyable and effective way of learning. The study found that it is important that students are given impartial information and advice before enrolling onto any course. During the initial interview students with no IT skills were advised to take a more basic IT course before embarking on these courses. Other students were advised to enrol on more specialist courses suited to their personal development aims, for example, web design. The findings from the study have indicated that it is also advisable to give students written detailed information before they start the course, including PC requirements.

Through the pilot project and related initiatives the Department of Continuing Education has been able to evaluate different approaches to online learning. The IT skills courses had no face-to-face contact whereas the Interpersonal Skills course used a 'blended' learning approach (Kay D, 2002; Sloman and Rolph, 2003). Blended Learning uses a variety of learning methods, for example, classroom, workshops and work-based assignments. This approach is well suited to the development of 'soft' skills, such as assertiveness and communication skills.

The feedback from the questionnaires, the reflective logs, along with the standard of the work produced for the assignments, indicates that the aims and objectives of the pilot project were met. Through the findings of this study the Department of Continuing Education now has a better understanding of the level of tutor support, student information and administrative requirements for online programmes. The collection of financial information during the running of the courses will help the department make more informed decisions in the future regarding the financial viability of running widening participation courses using third-party learning materials. Although online learning does not suit all students' learning styles it does have the potential to appeal to students who might not be willing or able to attend classroom courses. This study indicates that more students would be attracted to and participate in online courses if they were not dissuaded from doing so by high internet costs or restricted access to the internet.

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