

Learning to Teach at a Distance

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Abstract — This paper is a reflective account of the first two years of creating and running a distance learning Foundation Degree in electronics and computing from the point of view of two relatively new lecturers. Institutions in the UK are currently under pressure to widen participation by opening new markets and distance learning is one way in which they can do this. A Foundation Degree is a UK-based undergraduate qualification which integrates both academic and work-based learning. Learning at work serves a variety of purposes and takes many forms. This work-based learning aspect of a Foundation Degree means that all participating students will be employed, either full-time or part-time. Delivering a Foundation Degree at a distance gives flexibility which means that the students can participate without disruption to their employment. In this paper, we reflect on the methods and issues that have arisen during the first two years of creating and running a distance learning course. One aspect considered was to find out who a distance learning course may appeal to and why. Other issues considered include how the course was marketed and whether or not this proved to be effective. Before starting to produce material for individual modules, we had to develop a course structure and this took a lot of time, with many iterations. Because initial costs for setting up the course were large, external funding was sought. Eventually we were successful in getting funding from the European Social Fund which enabled the course development to go ahead. When developing individual modules, issues such as whether to write original materials or to base the course around existing learning materials, such as books, were considered. Several media were considered when deciding how to deliver the course, including Web delivery, CD and paper. We shall discuss our reasons for deciding on a CD based delivery. Staff developed their skills in several different ways including external training, existing staff experience and through peer review. Other issues considered in the paper include how distance learning courses integrate into the existing structures of the institution. How is writing and teaching on a distance learning course put into staff timetables? How is it dealt with in the staff workload audit? In addition, the academic support is historically set up to deal with face to face teaching. How adaptive are areas such as assignment handling and academic support to dealing with distance learning? We look at how much of the impetus for change in these structures had to come from the course team, rather than from the institution. Developing the course also led on to further developments, such as re-use of some of the modules on other courses.

Index Terms — Distance Learning, Foundation Degree, Teaching and Learning, Widening Participation.

INTRODUCTION

This paper is a reflective account of the first two years of creating and running a distance learning Foundation Degree in electronics and computing from the point of view of two relatively new lecturers. Institutions in the UK are being encouraged to widen participation by opening new markets. On 22 January 2000, the Education and Skills Secretary Charles Clarke announced the publication of a White Paper "The Future of Higher Education"[1], which set out the UK Government's plans for reform and investment in Universities and HE colleges. The paper included proposals to:

- Continue to increase participation towards 50 per cent of those aged 18–30, mainly through two-year work-focused foundation degrees;
- Work with employers to develop more foundation degrees, providing financial incentives for students, strengthening links between further and higher education and creating better pathways for progression;
- Encourage more flexibility in courses, to meet the needs of a more diverse student body and improve support for those doing part-time degrees. [1]

A Foundation Degree is a UK-based undergraduate qualification which integrates both academic and work-based learning. Learning at work serves a variety of purposes and takes many forms.

The Learning and Teaching Support Network, a UK resource on learning and teaching matters in higher education, describe work-based learning as:

“learning at higher education level derived from undertaking paid or unpaid work. It includes learning for work (e.g. work placements), learning at work (e.g. company in-house training programmes) and learning through work, linked to formally accredited further or higher education programmes.” [2]

This work-based learning aspect of a Foundation Degree means that all participating students will be employed, either full-time or part-time. They are often more mature students, who may not have studied for some time. They also have busy lives, with responsibilities which may often take priority over their learning. Delivering a Foundation Degree at a distance gives flexibility which means that the students can participate without disruption to their employment.

In this paper, we reflect on the methods used in producing and running the Foundation Degree. We look at some of the issues that have arisen during the first two years of creating and running a distance learning course.

DEVELOPING THE COURSE STRUCTURE

Because initial costs for setting up the course were large, external funding was successfully sought from the European Social Fund which enabled the course development to go ahead. Part of the money paid for members of staff to work full time for two years, both writing modules for the Foundation Degree and providing administrative support.

Developing the structure of the course went through several iterations. Originally, it was envisaged that the course would be very flexible, with three starting points throughout the year, so that students could start whenever they wanted to, taking either individual modules to fulfill an immediate need for skills in the workplace, or several modules, and gradually building these up over time to gain a qualification.

In addition, the amount up-front work which was involved in creating each module was a lot greater than anticipated. Practicalities such as creating extra exams and assignments for overlapping cohorts of students would have created further extra work and therefore initially the course was started with only one entry point each year, one set of exams each year and one exam board. However, this was done with the possibility of creating more entry points in the future.

DEVELOPING THE COURSE MATERIAL

When developing individual modules, issues such as whether to write original materials or to base the course around existing learning materials, such as books, were considered. Some of the staff attended a workshop on developing Distance Learning, run by the UK Centre for Materials Education, part of the Higher Education Academy, based at Liverpool University. One of the relevant points from this session stated:

“Course content: Many attempts at open learning founder because the course authors try to write all the content. This is understandable - we are interested in the content we teach! But it can wreck the economics of the course.

It is not enough to convert lecture notes into 'open learning' material, even by adding some questions and activities. Lecture notes are designed to support lectures. Open learning materials by contrast must work without a lecture.

There will probably be a textbook or collection of papers (some of which you may have written) or some web sites that contain much of the course content. Use these. Critique them if you need to, but use them.” [3]

In some ways, producing the modules was made easier by the fact that they would be written from scratch, rather than being based on existing modules which had been conventionally taught. It was decided to use the method described above by Baume [3] and base most of the modules around textbooks.

A further course material decision was how the books were to be used. Should the number of books used for the course as a whole be kept to as few as possible, using the same book for more than one module, or should each module have a separate book, allowing the best possible book for that module to be chosen? Initially, a well known definitive text was considered as the basis for several of the modules, reducing the number of books the student needed. It was quickly realised that the way that the book was written was much more suitable for use as a reference source, rather than trying to read the material with little or no previous knowledge of the material. Various textbooks were found which were written in an easy to follow style, with self assessment questions, so that the textbooks were appropriately structured for a course delivered in this way. Using these left staff free to put more effort into developing supporting materials and guidelines to help students make the most of the texts. The textbooks were given to the students, at either the initial weekend school, or they were posted out to the student. When the time came to run the course, using textbooks in this way did mean that books had to be ordered in advance,

and led to a small number of logistical problems. With students sometimes signing on to the course quite near to the start date, it was difficult to know how many copies to order. In addition, it was important to order the correct edition of each book, and with textbooks often being updated every two years, old editions will quickly go out of print. Once the text book is updated, this also means going through the module materials to update them in order to reflect the new edition of the text book.

ELECTRONIC OR PAPER DELIVERY?

The department already had a traditional distance learning course, which was delivered on paper. It was decided that delivering the course electronically would be cheaper, quicker and more effective. The choice then needed to be made between delivering the course on-line, or on a CD. Advantages of providing the course on-line were that it could be easily kept up to date, extra material could be added and there could be more interactivity. However, it was realized that many potential students may not have reliable, fast, cheap web access and so may find it hard to access the material if it is distributed in this way. A CD would mean that the students would not need to use the Internet to access the material. A telephone poll of local companies was carried out to ask what type of web access was available to potential students. The poll highlighted the poor web access which was available at the time and so it was decided to make material available on CD. The students who enrolled on the first year of the course actually all had good Internet access as the situation in the UK has changed very rapidly over the past three years and so we have now been able to consider making more use of more dynamic Internet based facilities, such as on-line student feedback forms, and on-line self assessment questions.

WORK-BASED LEARNING

When it came to including work based learning in the course, two methods were used. Most of the assessment of work-based learning was assessed through a specific case study module. In this module, students can write up a project which they have been involved in, in the workplace. They can therefore pull together previous relevant experience and theoretical knowledge gained during their study. In addition, several of the assignments in other modules are based on their experiences at work, such as an Information and Communication Technology (ICT) module which asks them to look at the ways in which ICT is used in their workplace and asks them to suggest ways for improving this use.

STAFF DEVELOPMENT

The development of staff to write distance learning material has been part of the initial leading in time to writing the material. The members of staff who wrote the modules developed their skills in several different ways including drawing on their own relevant experience, such as writing worksheets and instructions, external training, existing experience of other members of the course team and through peer review. As learning materials were produced, they were reviewed by other members of the course team and changes incorporated into a new version.

An informal but useful aspect of staff development was peer advice within the course team. Several members of the course team were either experienced distance learning writers or users. This experience was useful in guiding other members of the team in what was effective and what was not.

MARKETING THE COURSE

The course team felt that marketing was vital to the success of the course. Because the course has a very different structure from courses traditionally run by the institution, we expected it to attract a different type of potential student. We felt that in order to attract students to the course, marketing may have to have a slightly different emphasis to marketing which has been traditionally offered in the past. The institution has its own marketing department, which the course team contacted in order to use their expertise in this area. As this course is delivered and aimed at a newer market there were some initial problems. The marketing department has a history of recruiting school leavers onto traditional courses or people in management positions onto management courses. There is an assumption that potential students will find out about courses on offer through the prospectus, either the traditional paper version, or the on-line version and they did not have further suggestions for marketing the course other than to make sure that it was in the prospectus. The prospectus is published in two parts, full time courses and part time courses. The Foundation Degree was placed in the part time courses section of the prospectus, even though its flexible structure means that it can be taken either part time or full time and so it could have been placed in both parts of the prospectus. One year into the course the course team noticed several features about the students enrolled. This course was very different from other courses run at the Institution and potential students may not be recruited through the usual channels.

Many of the students are mature students who may have been away from education for some time and who may not have access to advice about how to find out about courses. Most of the students who were recruited in the first year of running the course found out about the course through web pages which were developed by the course team.

INSTITUTIONAL SUPPORT

One major factor which became apparent as the course was developed and run was that the existing administrative structures of the Institution need to be reviewed to enable more flexible delivery. The structures made the assumption that all courses are delivered face-to-face, in the traditional way. There were certain administrative difficulties that had to be addressed:

- There is no existing method for letting distance learning students know information such as their exam timetable as these are traditionally posted onto notice boards on campus. This was addressed by the course team both e-mailing the students and providing the information on an on-line bulleting board.
- The Institutions system for submitting assignments requires that students hand in the assignment in person, and they are then handed a receipt. There is no official system for submitting assignments by e-mail or by post. A separate e-mail account was created to handle queries and assignments from the distance learning course. Assignments can be submitted electronically or by post. Most of the time, assignments are sent by e-mail directly to the module tutor. However, there is no a real system at present for acknowledging receipt of assignments and so students are not sure if their assignment has actually reached the tutor or not. At one point, the Institution introduced a new fire wall, which blocked some e-mails with attachments. There was no way for students to know that their assignment had not actually been delivered and tutors were not aware that e-mails had been blocked. This is an area which will hopefully be improved upon next year, when an administrator is going to be employed to work on all of the distance learning courses in the school. All assignments will be sent to the administrator who will issue receipts electronically to the students as assignments are received. Students will be told that if they do not receive a receipt then they should assume that their assignment has not been delivered and they should contact a member of the course team.
- Many of the student support structures make the assumption that students can drop in and pick up leaflets or that they can have a meeting with a member of staff.

The institution does though provide further specific support to distance learning students in two ways. The library had a distance learning CD which we distributed to students which provided links to existing web pages. The Institution has a Centre for Academic Practice, which offers support on such things as report writing, referencing and English skills and provides leaflets on these various topics. Distance learning students may phone in and request that copies of these leaflets are posted to them.

Writing and teaching on a distance learning course does not appear on staff timetables and there is an expectation that this work will be fitted in around other, more traditional courses, rather than time being allocated for it. When teaching a module at a distance, the learning materials are already prepared. It seemed that it was easy to not notice the amount of interaction which each tutor was having with the students. Much of the impetus for change in these institutional support structures had to come from the course team. The staff team has tried to find out which support structures already exist and has tried to use existing procedures where this is possible, but often the course team has had to develop procedures as they became aware that there was no existing procedure.

STUDENT SUPPORT

Support for the students was also offered through the use of on-line bulletin boards. Students were encouraged to use these boards initially, by including their use in an assignment, with marks awarded for contributions. However, low student numbers do mean that contributions to the boards are not very frequent and this in turn leads to students not bothering to look at the boards on a regular basis. In addition, the software used for the boards was very slow. In order to try to improve the usefulness of this form of peer support, we are looking at using different software in future years and are also looking at the way in which tutors can encourage participation. Increased student numbers should also lead to increased use of the boards.

An assignment schedule was created for the course, which spread assignments throughout the year, so that if students were taking more than one module, they would not have a clash of hand-in dates. However, the way that the schedule was presented was quite confusing for students in practice, as it was easy to confuse the dates. It has been decided that next year,

the assignment schedule will take the form of a single page calendar. This also means that other important deadlines and dates can also be added and hopefully the format will be much easier to understand.

Students are provided with a study guide which describes the practicalities of the course, including regulations for handing in assignments, information about sources of support and contact details for the course team.

Student feedback was sought through the use of an on-line questionnaire. The students were e-mailed and asked to complete a form on the web. The response rate for the questionnaire was very low, but the feedback that we did get was very positive. We shall be giving the students further opportunities to give us feedback via questionnaires in the future. In addition, we asked one of the students to act as a student representative. The student representative was given the opportunity to attend Boards of Study, or to pass on any student feedback or comments for consideration at these boards via e-mail. The students have raised issues via this channel, such as access to a manual for some of the software which was used, and this has led to a positive response from staff to meet this student need.

Because the students do not need to attend each week, there were no registers of attendance and the only way of measuring the engagement of the student with the course was through submission of assignments. Because of this it was difficult to spot the point at which a student lost interest and motivation and stopped engaging with the course. So to further support the students the tutors need to contact students on a regular basis, even when assignments are not due in, so that any problems can be noticed and addressed much earlier. It can be very easy, once the learning material has been produced, for module tutors to simply give the material to the students and to then expect the students to be able to get on with their learning with little active intervention from the tutor. However, in practice, this may lead to the tutor being unaware of the level of participation of the student. Distance education is an active, rather than a passive process and module tutors need to engage in interaction with their students.

WEEKEND SCHOOLS

The course was designed to include three weekend schools which take place at the institution in Northampton, UK. These weekend schools are a chance for students to meet each other and the course team. They also enable any students who have difficulty in carrying out practical work to do that work at the institution. The initial weekend school is held at the start of the year. Students have the opportunity to collect the course materials and to hear about the support which is available to them. They also have a chance to try out some of the software which they will use on the course, such as simulation software and the bulletin boards. Any students who cannot attend the weekend school are sent a pack which gives them similar information to that given out at the school. The second weekend school gives students the opportunity to ask any questions which they have about the course and to meet with other students once again. The final weekend school is an opportunity to revise material for the exams and to ask questions about exam format.

FURTHER DEVELOPMENT

Since the course has been developed, new opportunities for making use of the modules have been taken. Some of the modules are fairly generic, particularly some of the level 1 modules such as ICT Applications and can be reused in many different courses. So far, some modules have been used in a Motor Sports Foundation Degree and in a Lift Engineering Foundation Degree. Because the modules are taught by distance learning, there are no timetabling issues about having students from several courses taking the same module and the increased student numbers can mean that there is more meaningful use of the on-line bulletin boards and therefore greater peer support.

Some of these other courses have had starting dates in January, as opposed to the October starting date of the Foundation Degree in Electronics and Computing, and this has led to a drive to overcome the difficulties of having more than one start date for the course. Hopefully, in the future, the course will have more than one start date and will become more flexible in the way that was envisaged at the onset.

CONCLUSIONS

- This work-based learning aspect of a Foundation Degree means that all participating students will be employed, either full-time or part-time. They are often more mature students, who may not have studied for some time. They also have busy lives, with responsibilities which may often take priority over their learning. Delivering a Foundation

Degree at a distance gives flexibility which means that the students can participate without disruption to their employment.

- There are relatively high costs both in terms of time and money in setting up this type of course. There may be some delay between producing the learning materials and reaping the full benefits which can be gained from maximizing the use of the materials, through re-use on different courses.
- Staff need to train in how write this type of material.
- Using books as the basis of the learning material reduces the workload of staff developing courses, enabling them to concentrate more on the learning and teaching aspects of the material.
- This form of delivery can raise problems initially because of the nature being different to the standard undergraduate teaching, but its flexibility can be useful for both the students, employers and the institution. Academic support may not have been originally designed to work with this type of course, and although systems can be adapted, there may be some delay in this happening and course staff may need to be proactive in instigating any changes.

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