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Cooking online:investigating the effectiveness of providing on-line support material to students on a professional cookery apprenticeship course

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Introduction

'Teaching through new technology will inevitably change the way subjects are taught'.

(Laurillard, 1993)

Having worked as a lecturer for five years, I was given the opportunity to undertake the postgraduate diploma in third-level learning and teaching at the Dublin Institute of Technology. The elective I chose as part of this course was online learning. The requirement to compile a reflective journal during the module has provided the catalyst for me to write this paper. This Paper describes work in progress for proposed research within the Department of Hospitality, Tourism and Leisure Studies in Athlone Institute of Technology (AIT). The purpose of this research is to investigate the feasibility of providing and the effectiveness of online course materials for students following the day-release apprenticeship programme in professional cookery. At present students are required to attend college full-time for six weeks in a 30-week course. For the remainder, students are required to attend college one day per week. The group comes from diverse geographical locations, therefore it is expected that the provision of a blended learning environment will enhance student learning. As Crook describes it, 'Computer networking invites the fragmentation of education provision such that it can be distributed in both time and space. The virtual learner will have no need to congregate in set places and set times' (Steeples and Jones 2002). In addition Crook also suggests that 'students linked by a common computer network are empowered to interact with their peers and their tutors through this infrastructure'.

It is envisaged that the research methodology to be used will be action research, which may include characteristics of the case study approach. 'Action research is deliberate, solution-oriented investigation that is group or personally owned and conducted. It is characterized by spiralling cycles of problem identification, systematic data collection, reflection, analysis, data-driven action taken, and, finally, problem redefinition. The linking of the terms "action" and "research" highlights the essential features of this method: trying out ideas in practice as a means of increasing knowledge about and/or improving curriculum, teaching, and learning. (Kemmis and McTaggart, 1982)

Need for proposed research

The use of and access to communication and information technology has increased dramatically over the past decade. Students are becoming more proficient in their computer skills and are expecting to use this technology as an integral part of their course material. The Athlone Institute of Technology Strategic Plan (2003) states that the institute intends to

engage fully with new methods of teaching and learning and in particular to deliver courses by e-learning and distance-learning mode, with the use of a blended-learning approach. Students would attend practical and theory classes as required by the syllabus, but in addition would have further course materials and discussion fora available to them to enhance their learning. Research by Colin Agnew (2003) into the effectiveness of providing online resources for electrical apprentices indicated that students found 'the online module was a useful resource' also concluded 'it is important to link the learning situation to the needs and motives of the learner' thereby suggesting that relevance is an essential consideration when designing the course materials.

Benefits of Proposed Research

Alexander and McKenzie (1998) summarised the benefits to students engaging in successful online courses as the following:

- Improves quality of learning
- Improved productivity of learning
- Improved access to learning
- Improved student attitudes to learning.

The Apprenticeship course normally attracts students, who are highly motivated, therefore it is expected that the provision of an additional learning environment, which will allow them access to their fellow students and thereby enhance the student centred approach.

Design

 'If we approach technology with a firm commitment to an epistemological ideal, we will then be able to create new educational environments based soundly on educational principles'. (Bonk, 1998)

I agree with Bonk, and with this in mind I adopted the five-stage model for the design of online course materials described by Gilly Salmon (2000). The stages are:

- Access and motivation
- Socialisation
- Information exchange
- Knowledge construction
- Development

The online course materials have to allow students to access information and to communicate with fellow students on a course that is easy to navigate. It is envisaged that students will also have an opportunity to complete induction examinations or other self-tests with rapid feedback about the syllabi. The tutor will have the ability to provide support and be able to communicate with the students as a group outside of the normal day for attendance in college. There will be a 'help' section available to facilitate students who have difficulty using the site. The course will be designed to allow students engage in peer collaboration and build on the knowledge and experience gained in face-to-face sessions in college. Crook suggests 'the main cognitive benefits of peer collaboration to be articulation, conflict and construction' The electronic conference will provide a space for students to discuss issues and exchange ideas about their practice. According to Reeves 'collaborative learning is one area in which the use of C[omputer] & I[nformation] T[echnology] excels' (Steeples and Jones 2002).

Implementation

It is intended that online materials will be made available using WebCT, which is expected to be the platform of choice for the Athlone Institute of Technology. Course materials will be designed based on the syllabus of the apprenticeship programme. Students will receive training in how to use WebCT during the first four-week block in college.

According to Laurillard (1993) students 'need to be oriented towards the ideas or skills they are about to encounter. This is equally true for media-based materials, whether they are part of a distance learning course, or supplementary to face to face teaching'. Salmon (2000) also emphasises the need for online participant induction. She maintains 'it is easy to make wrong assumptions about learners' levels of online competence and early CMC (computer mediated communication) behaviours and needs', and she concludes 'that the benefits of effective online induction and preparation are immense'. It is therefore intended that those students requiring extra tuition in information technology will be in a position to access this also during their initial induction period. To ascertain the effectiveness of the online induction and to ensure that all students are equally proficient in the use of the technology it is expected that WebCT induction will be assessed and extra training provided if required.

Pilot Study

'Designers learn more from watching a small group of students trying to learn from their materials than they ever do from questionnaire studies'. This stage of piloting the course materials will, according to Laurillard, allow designers ' to discover, through observation and interviewing, for example, the contextual conditions that enable the courseware to work more effectively'. It is envisaged that the course will be piloted and evaluated at first by using a

small control group of six to ten students within the institute, as opposed to distance learning. Any adaptations to the design of the support materials will be made based on these in-house observations. The course will then be made available as a pilot study to a control group within the first year cohort of apprenticeship students. All participants will be required to have access to a computer and the internet. This group will be tracked using the WebCT facility for the full academic year and will provide feedback with regard to the course design along with other criteria. A comparative assessment will be made between the pilot group and the students who did not have access to the WebCT.

Evaluation

Course evaluation will be formative and summative. The course will be piloted and the tutor will be required if necessary to adjust the content in order to support effective learning. The data received from tracking students in their use of WebCT will also form part of the analysis of the effectiveness of the online materials. Students will be requested to complete a course evaluation form which will be based on a number of different criteria: for example, usability of the site, support of tutor, course materials, the extent to which the online materials enhanced their learning.

Expected Costs

The initial costs will be carefully tracked to include the development costs of the site, staffing costs, on-going costs such as support and licensing, and delivery costs (for example, training, purchase of hardware and software). For students the cost of using the internet access will also be a consideration. The National Co-ordinator of the Apprenticeship Programme has recently expressed an interest and intimated that they would like to be involved in this study. It is expected that funding may become available to support this project.

Expected implications and impact on future learning

It is expected that the provision of this online support will enhance the learning of the day release students by allowing them to build a learning community, which is not restricted by geographical location. This is echoed by Benjamin (1994) when he states that 'Every learner can, at his or her own choice of time and place, access a world of multimedia material…immediately the learner is unlocked from the shackles of fixed and rigid schedules, from physical limitations… and released into an information world which reacts to his or her own pace of learning'.

Conclusion

This research will take place at a very opportune time, as Athlone Institute of Technology is about make WebCT available. The students taking part in the pilot study will not have any experience of using online course materials. There is strong support from management and fellow lecturers with the Department of Hospitality, Tourism and Leisure Studies for this research, as it will inform future practice.

It is expected that the provision of support materials online will improve quality of learning, productivity of learning and improve access to learning for the Apprenticeship students. Although initially there will be implications with regard to costs it is hoped that with support from interested parties these will be outweighed by the benefits to students, lecturing staff and the institute.