Resources to aid staff development for Flexible Learning

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Abstract

This paper describes the development of a website and workbook to help staff adapt to and adopt flexible learning practices. The project has been a collaboration between the Faculties of Information Technology and Engineering at Monash University. University and Faculty priorities suggested the need for a broad focus on equipping staff for flexible delivery, requiring coverage of a wide range of educational issues and concepts.

The paper proposes a four stage view of flexible learning as: flexible delivery, project based learning, problem based learning and student directed (independent) learning. This paper provides a visual impression of some of the levels of the site. It discusses some of the difficulties of presenting the material on-line and the need for a supporting workbook and workshops. It reports on the partnership formed between the two Faculties who undertook this project.

Introduction

A website and workbook have been developed to help staff adapt to and adopt flexible learning practices. Both the Monash Strategic Plan [Robinson, 2000] and the Learning and Teaching Operational Plan [Monash University, 2000] place a great emphasis on flexible learning. The two Faculties involved in this project (IT and Engineering) were drawn into this new focus.

This direction places a significant emphasis on flexible delivery in the first instance, in order to
provide students with the opportunity to study at their own time and place, rather than on-campus in the traditional way. Such development allows the University to move into new markets, locally, nationally and internationally, in line with the international focus of the Monash Plan.

**Overall approach**

Four stages of pedagogical development were defined within the scope of flexible learning:

Flexible delivery – provision of notes, web sites, CDROMs, email, newsgroups, etc. The focus is on changing the *delivery* of the subject, not its content or teaching style.

Project-Based Learning – projects integrate topics within a subject, or provide an integration of subjects into a final year task. The focus is on changing the teaching style from the development of small scale skills to the development of both small and large scale skills.

Problem-Based Learning – students engage in a problem in order to learn. The focus is on having students define the learning needs based on the problem. There is a fundamental shift of control from the teacher to the student.

Student-Directed Learning – the student determines the direction, scope and assessment of their learning by choosing their own problems. The shift from teacher control to student control is virtually complete.

It was felt that these four stages would allow the authors’ problem-based learning ideals to be achieved while also allowing staff to develop educational knowledge and skills that were appropriate to their immediate needs. It would also provide a staged progression that staff would find useful in moving towards a self-directed learning framework for the education of their students.
Thus, a framework has been defined that maps out the educational thinking required to move from traditional lectures and tutorials,

through flexible delivery – a move away from sitting students in classrooms, and provision of content in a fixed linear mode,

through project-based learning – with an emphasis on student activity rather than student listening,

through problem-based learning – where students are expected to grapple with poorly defined problems and to define learning for themselves,

to student-directed learning – where students choose their own problems to investigate.

The opening screen of the new project allows staff to choose any of these four modules (Figure 1). The modules are being developed in sequence, beginning with flexible delivery. The aim is to provide an approach to each module using the educational techniques espoused by that module (ie flexible delivery for the flexible delivery module, PBL for the PBL module).

Figure 1 - Opening Screen for Flexible Learning

The flexible delivery module is particularly challenging because it requires staff to become familiar with a wide range of educational concepts, theories, approaches, language and so on. This module covers a large number of fundamental educational issues that staff may not have addressed before – for example, learning theories, instructional design, developing educational objectives, understanding the learners’ needs, etc.

In order to make this possible, the domain of flexible delivery has been subdivided using the 6 standard questions – What, How, Who, Why, When, Where (Figure 2). These questions
explore issues such as:

Why use this mode of learning?

Who does it serve?

What are its components and skills?

How are these implemented?

When and at what pace will students study?

Where is study possible using this method? (freedom and constraints of location)

Novice users are encouraged to start with *What is Flexible Delivery*? The next logical step is to either *How*, or to *Who* and *Why*. *When* and *Where* reinforce the emphasis on time and place of learning.

Figure 2 - Flexible delivery - What, How, Who, Why, When, Where

The arrows between the 6 key questions are a further 6 important issues that need to be addressed in flexible delivery (Figure 3). This was a convenient way of simplifying the presentation on the screen while showing some of the structure and interrelationship of the issues to be addressed. The authors realise that there are also other relationships between these six questions that are not shown (e.g. *Who* and *How*, or *Why* and *What*). However, these relationships were considered to be secondary, and it was felt that the complexity introduced to show all combinations was counter-productive. These issues are explored within the individual question nodes.
Figure 3 - Further issues for Flexible Delivery

Drilling down the *What* path provides specific questions to be addressed (Figure 4).

Figure 4 - Specific *What* questions

Exploring one of these paths, *what are the learning objectives?* yields specific advice (Figure 5).

Figure 5 - Specific advice for learning objectives

The whole site can be viewed at [Monash University, 2001].

A workbook is being developed to help staff address the key questions that the site raises under each topic. Each two page spread includes a key question as well as supporting information from the site and a link to the site for further information. The workbook will be available in printed and online versions.

**Learning partnerships – student-staff, staff-staff and faculty-faculty**

This site helps staff to move from traditional methods to flexible learning. It shows a continuum of possibilities, moving from traditional methods, through flexible delivery, towards student-directed learning. In the latter method, students decide what they should learn, as well as how, when, where and with whom they will do it. This is the type of learning partnership, between staff and student, which develops autonomous, lifelong learners.

The authors’ experience in running staff development workshops is that this is a long and time-
consuming journey that needs considerable encouragement and reassurance. Thus, there needs to be a well-resourced learning partnership at the staff level. Staff need to develop the skills step by step. They need to be introduced to concepts at a rate at which they can translate them into practice in their classrooms. They also need to be able to start in different places (hence the random access available at the site) and they need support from colleagues and staff developers along the way – the learning community. It is unlikely that such flexible learning resources will ever completely replace the workshops that are a regular feature of academic staff development.

This is a slow process. Many staff struggle to write clear learning objectives and articulate matching assessment strategies. Consequently, the first module explores key educational issues in order to develop the concepts and language for further growth. Some of these include:

- Learning domains – cognitive, psychomotor, affective and social
- Constructivism – students build their own understanding
- Connecting to students’ prior knowledge, understanding and experience
- Meeting students’ needs (and helping them to find them)

The project represents an on-going, long-term partnership between the two Faculties and an external educational consultant. The first two authors have been working together for around five years on various problem-based learning projects [eg Hadgraft & Prpic, 1996]. This project was born out of the collaboration between the first and third authors on the University’s user group for educational technology [HEPCIT, 2001]. Authors two and three are now collaborating in the development of the IT Faculty’s FLITE centre (Facilitated Learning in Information Technology and Education). Authors one and two are collaborating on another project on internationalising the curriculum. The project described in this paper has been an extremely useful tool to allow the authors to explore areas of common interest, as well as to
highlight those areas where different approaches are used in the two Faculties. As the use of flexible learning expands in each Faculty, the materials described here will continue to be developed further. They will support a range of learning by staff from formal workshops to autonomous learning in their own time and place.

Using the package

It is envisaged that people will use this package in a variety of ways:

Using the package as a resource, users may be browsing for information, or looking for quite specific answers to specific questions. In this case, they would be unlikely to want facilitation, or even interaction with other users of the package (although they may wish to discuss with other users particular issues raised in the process of their exploration).

Using the package as a resource together with an on-line facilitator will particularly suit those with a specific need for support in developing subjects for flexible learning. It will allow them to develop skills for this task at any time of the year (and from any location), yet still have access to expertise in educational design. It is likely that these participants would form general and issue based discussion groups with others using the program. The facilitation could be achieved via email or moderated discussion forums as well as through face-to-face interaction. Such a role would need to have a formal acknowledgement of workload associated with this activity.

Using the package as part of a formal workshop setting. This mode preserves the benefit of face-to-face interaction with the flexibility of access to a wide range of resource materials long after the workshop is over, and at the participants’ convenience in terms of both time and place.

Conclusion
This paper discusses an Internet-based course that addresses the issues of flexible learning. The program’s original focus was on problem-based learning, but changing institutional priorities and a need to bring staff up-to-speed on a broad range of educational issues, necessitated the development of a staged approach to flexible learning.

The course provides an exploration of flexible learning by exposing participants to four stages of development: flexible delivery, project-based learning, problem-based learning and student-directed learning. In each of these stages, participants use the mode of the stage, eg project-based learning for learning about project-based learning. Through this staged approach, participants see the changing role of the teacher as the student takes on more responsibility. There is a transition from instructor to facilitator through these stages.

Staff are expected to use the program in a variety of ways from independent browsing, through online facilitation, to formal face-to-face workshops. The authors believe that this program demonstrates effective use of flexible learning principles in its implementation using technology. Some examples include an attention to user interface principles, flexible access to materials, online interaction and, support of a variety of learning styles. It encourages an open-ended approach to learning, which the authors see as a key goal of flexible learning. It is expected that the program will become a key part of each Faculty’s flexible learning strategy for staff development.

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References


