COULD PEDAGOGICAL PLANNERS BE A USEFUL LEARNING DESIGN TOOL FOR UNIVERSITY LECTURERS?

Leanne Cameron
Macquarie e-Learning Centre of Excellence
Macquarie University
Australia

Abstract
Designing learning for the higher education environment is a complex task: learning materials need to take into account different student ability levels, learning approaches, media and curriculum. Learning Design is a professional discipline in which many of our lecturers have no formal training. However, this situation might be improved with good guidance, inspiring examples, and supportive tools. It is suggested that pedagogical planners may provide lecturers with a learning design scaffold that guides them through the learning design process so that they might develop effective and pedagogically sound learning designs. This paper reports on the case for pedagogical planners and is the first stage in a major project that will be further developed throughout 2008–2009.

What is Pedagogical Planner?

The current tools called pedagogical planners can be used for a variety of purposes:

- as step-by-step guidance to help practitioners make theoretically informed decisions about the development of learning activities and choice of appropriate tools and resources to undertake them;
- to inspire lecturers to adopt a new teaching strategy and support them in doing so (Falconer, Beetham, Oliver, Lockyer, & Littlejohn, 2007);
- to provide design ideas in a structured way — so that relations between design components are easy to understand (Goodyear, 2005);
- to combine a clear description of the learning design and offer a rationale which bridges pedagogical philosophy, research-based evidence and experiential knowledge (Goodyear, 2005);
- as a database of existing learning activities and examples of good practice which can then be adapted and reused for different purposes (Goodyear, 2005);
- as a mechanism for abstracting good practice and metamodels for learning (Conole & Weller, 2007);
to produce a runnable learning design intended for direct use by students (Falconer et al., 2007); or

• to encode the designs in such a way that it supports an iterative, fluid, process of design (Goodyear, 2005).

However, not all of the current pedagogical planners attempt to fulfill all the functions above. A number of planners are very specific and focused in their purpose; however, they still perform a pedagogical planning function, despite their limited applications.

A Way Forward — Structured Guidance

Lecturers look for support with their teaching for a number of reasons. They may be concerned about their students’ performance, they may want some reassurance about their teaching techniques, or they might want to try an innovation (Ramsden, 2003). Some lecturers do not know how to start improving their teaching, often overwhelmed by the field’s complexity, and they ask for quick fix that will solve all their difficulties.

Depending on the infrastructure provided by their institution, help may be on hand in the form of professional development staff but as each university tries to do more with less, often the availability of help is limited, if it can be offered at all. Stark’s research (2000) found that most university lecturers do not avail themselves of expert assistance when planning courses even if it is readily available and rarely read educational literature. They relied on their own ad hoc observations because they did not find the information available to them about learning and teaching meaningful. As a result, these lecturers were attempting the complex and challenging task of effective teaching with no training nor were they intending to make any attempt to develop their teaching skills in the short term. This is not an isolated incident and similar findings have been reported elsewhere (Knight, 2004).

The pedagogical planner projects have arisen out of a perceived need for alternative methods of support for these lecturers. As an initial step, sharing learning design designs, resources and methods used by others have been trialed successfully at a number of universities. For example, The Learning Design Template Project at Queensland University of Technology (Heathcote, 2006) which provided lecturers with templates that embedded pedagogical principles, e.g., problem-based learning, critical thinking, and the online course templates based on specific learning designs that were developed to support courses at the University of New South Wales (McAlpine & Allen, 2007). Both these projects are currently under development after successful pilot studies. Additionally, lecturers may also have access to external example designs such as those provided on the “Learning Designs” website at the University of Wollongong (Oliver, Harper, Hedberg, Wills, & Agostinho, 2002). However, Goodyear (2005) notes that the resources available to university lecturers for learning design are not of a consistent quality, are difficult to locate in relation to a particular pedagogical framework, are not constructed in such a
way that they capture and distil the practical implications of research-based knowledge and they do not accommodate the iterative nature of design practice.

A number of other pedagogical planner projects have emerged to encourage staff to look at their teaching differently, to question their existing teaching methods, to search out reasons for the effects of their teaching on their students’ learning and to apply what they find out in different assessment and instructional methods. The LearningMapR tool (Buzza & Richards, 2005) and two JISC-funded planner tools, Phoebe (Manton & Masterman, 2007) and the London Planner (Laurillard, 2008) are now beyond the proof-of-concept stage and these projects have attracted international interest.

An Overview of Approaches to Learning

It is vitally important that the pedagogical planners can accommodate the variety of learning styles, approaches, and theories. The approaches lecturers take are likely to be based on what they know of learning theory and practice. This can be from their training or from talking to colleagues, as well as the professional know-how they have gained in the course of their career (Knight, 2004). Biggs (2003) suggests that theory makes them aware that there is a problem, and it helps to generate a solution to it. This is where many higher education lecturers are lacking; not in theories relating to their content discipline but in well-structured theories relating to teaching their discipline. This may be where the pedagogical planner will be most effective. Reflecting on their teaching and seeing what is wrong and how it may be improved requires them to have an explicit knowledge of the theory of teaching that perhaps the planner can provide.

Discipline Specific Knowledge

Lecturers report that their academic disciplines exerted the strongest influence on their course planning (Stark, 2000). The views lecturers held about the nature of their discipline are intricately linked with their beliefs about the purposes of education. Many lecturers felt that these disciplinary influences were strongly rooted in their own scholarly background and were especially dependent upon their preparation and their prior teaching experience. Discipline is the key predictor of classroom goals and beliefs about education while other factors have a much smaller influence.

It is important to understand that the general educational goals are determined through the specific subject content in which they are expressed (Ramsden, 2003). Stark (2000) found the importance of building on disciplinary orientations to support teaching improvement and of fostering understanding of disciplinary differences should not be under-estimated and that it often hampers curriculum committees in their work if they promote institution-wide generic principles. This suggests that a non-specific pedagogical planner (one size fits all) solution that cannot be easily modified is unlikely to be successful.
Laurillard (2002) found discipline variations in the way lecturers prefer to arrange content parallelling their educational beliefs and views of their disciplines. Lecturers of history and fine arts were different from others in that they placed more emphasis on arranging content according to the way their field is structured, and the vocational fields of nursing, business, and education placed slightly more emphasis on students’ vocational needs.

However, lecturers need to know more than just their subject. They need to know the ways it can come to be understood, the ways it can be misunderstood, what counts as understanding and they need to know how students experience the subject. The way the subject is taught is driven primarily by lecturers’ beliefs or by the commonly agreed consensus within an academic discipline about what constitutes valid knowledge in the subject area (Bates & Poole, 2003). The nature of knowledge centers on the question of how we know what we know.

Lecturers’ disciplinary socialization and their current beliefs about the fields they teach influence how they plan courses as well as how they teach them (Stark, 2000). This illustrates that learning design is not a science but a creative act linked to lecturer thinking that must be examined contextually. Even within a discipline, it has been found there may be a need to approach the same subject in different ways to meet the learning needs of all students (Cook, 2006). Hard-pure disciplines (such as subjects like math and physics) tend not to use collaborative tools. Whilst other groups highlight e-portfolios and other reflective technology as key tools, natural sciences and math does not use such tools. Soft-pure subjects (e.g., English and art) value communicating effectively using different modes of expression and also use wikis to encourage shared knowledge-building and active research. Cook suggests it may be that math and physics do not use discussions because of the subject nature, or because the design of the learning does not provide room for discussion. He poses the question: Are the differences between subjects because there are fundamental differences in the disciplines or just the ways the learning approaches have been embedded over time?

The Use of e-Learning

The role of a pedagogical planner in designing learning using technology is the same as with any other learning design but there are a number of additional factors to consider: most importantly, deciding on the locus of control and working within the available resources. Technological capabilities dictate not how much learner control is supported, but how much is possible. They determine not what should be, but what could be (Hannafin & Land, 1997), hence technology can be used to personalize learning or depersonalize it. The use of technology in university teaching and learning is growing rapidly, with many claims for its increasing impact on the processes and outcomes of teaching and learning. Much of this is occurring in an ad hoc way, driven by the technology itself (Boud & Prosser, 2002). Many of the developments adopt a teacher-focused rather than student-focused perspective in the process of translating teaching
practices into new forms. They involve designing and presenting materials using new technology rather than utilizing knowledge of how students’ experience learning through the technologies. It is suggested that pedagogical planners could offer some alternatives.

E-learning offers scope to organize teaching differently (NAACE, 2004). Neither lecturers nor students have to be (always) present in the classroom; it allows for access to materials that would otherwise not be available in a classroom, and allows lecturers and students to structure learning materials in a variety of ways; enables different preferences for learning to be more easily accommodated, and makes it easier for students to access learning. Bates and Poole’s research (2003) has confirmed e-learning is not necessarily better or worse than face-to-face education although it is different. Once it is accepted that it is not necessarily better or worse, the nature of the argument about learning technologies changes. The question then is “in what contexts and for what purposes are they best used?” This is a consideration that should be built into the decision-making process of a planner.

The ideal e-learning model would describe how to engage the learners in meaningful tasks, give rapid feedback, encourage reflection through dialogue with tutors and peers, align assessment, and would encourage the creation of a community of learners through discussion (Mayes & de Freitas, 2004). Guidelines for best practice in e-learning can be structured around five key areas (Boud & Prosser (2002):

1. Engaging learners — Taking into account their prior knowledge and their desires and building on their expectations.

2. Acknowledging the learning context — This includes the context of the learner, the course of which the activity is part and the sites of application of the knowledge being learned.

3. Challenging learners — This includes seeking to get learners to be active in their participation, using the support and stimulation of other learners, taking a critical approach to the materials and go beyond what is immediately provided.

4. Providing practice — This includes demonstration of what is being learned, gaining feedback, reflection on learning and developing confidence through practice.

5. Learners should be given time and opportunity to reflect. When learning online, students need time to internalize the information.

In addition to the teaching and learning benefits of e-learning, there are also benefits to lecturers in the increased efficiency of tracking and monitoring students’ progress. Yet despite these potential benefits, e-learning is still not uniformly adopted across the disciplines, or even within individual institutions (Knight, 2004). Making the move
towards e-learning presents lecturers with a complex set of challenges — they may need to develop new skills, embrace changes in the nature of their role and then reassess the pedagogies they employ. In many cases of “e-learning transformation,” teaching and learning approaches have often simply been re-hosted, not re-defined (Hannafin & Land, 1997). A pedagogical planner could provide lecturers with step-by-step guidance that helps them make theoretically informed decisions about the learning activities, tools and resources they will need to attempt e-learning with some confidence.

**Conclusion**

The complex task of learning design for the higher education environment might be improved with good guidance, inspiring examples, and supportive tools. The current range of pedagogical planners acknowledge these factors in their design, along with the potential to streamline the planning process with direct input from the university’s databases (such as learner records, timetabling) and learning management system. The planners also provide an opportunity to share examples of good design practice, which can be tailored to meet the lecturer’s particular requirements.

**References**


*Leanne Cameron* is currently working with MELCOE (Macquarie University’s E-Learning Centre of Excellence) in Sydney, Australia. She is managing a number of research projects including a planner project that is designing a scaffold to help new university lecturers and teachers develop effective learning designs. Until April 2007, Leanne was working with the Australian Centre for Educational Studies at Sydney’s Macquarie University. Prior to that Leanne spent a number of years working as a teacher.
in both primary and secondary schools and as Technology Trainer for the Department of Education’s Training & Development Directorate.