PLANNER TOOLS - SHARING AND REUSING GOOD PRACTICE

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Abstract

A number of projects teams are currently developing tools that use generic templates to share and reuse good teaching practice. They hope to introduce educators to the learning design process so that they might develop their own effective and pedagogically sound learning activities. In this way, they are encouraging the sharing and reuse of good practice in teaching and learning without requiring lecturers to become experts in learning design or theory.

Background

Learning design help may be on hand at their institution in the form of professional development staff, however, it has been found that most university lecturers do not avail themselves of expert assistance when planning courses even if it is readily available and they rarely read educational literature (Stark, 2000, Knight, 2004). Instead lecturers rely on their own ad hoc observations because the information that was made available to them about learning and teaching in the past was not meaningful. As a result, these lecturers attempt the complex and challenging task of effective teaching with no training nor do they intend to make any attempt to develop their teaching skills in the short term.

If much of the creativity and power in the lesson lies in the learning design as some suggest (Toohey, 2002), then planner tools may be of some help to these lecturers. By documenting the ideas which become the focus of study, the learning activities and the means by which student achievement will be assessed, learning designs can be shared. (Of course the way in which the curriculum is brought to life is equally important, but the power of good teacher-student interactions is multiplied many times by good learning design.)

Heathcote (2006) suggests an ongoing obstacle to the widespread adoption of effective and engaging learning design is the degree of pedagogical understanding required by a lecturer to make the most of the available resources. There is a concern that before any learning activities are designed, lecturers must, tacitly or explicitly, know the principles of learning and how students learn (Ally, 2004). This is especially true for online learning, where the lecturer and student are separated. The development of effective learning designs should be based on proven and sound learning theories but unfortunately some lecturers have

not obtained that knowledge as part of their preparation to teach in the higher education sector. A planning tool can offer a very practical approach to learning design for lecturers who appreciate the potential significance of their teaching role but do not have a strong educational background and are at a loss as to where to start.

Sharing and Reuse

The benefits of sharing and reusing learning designs have been well documented (Philip & Cameron, 2008). Sharing and reuse can conserve time and effort in creating learning designs by:

- providing exposure to models of best practice;
- providing scaffolding and mentoring for new teachers;
- being a source of inspiration to even experienced teachers;
- facilitating collaborative review, reflection and evaluation of learning designs;
- allowing learning designs to be meaningfully archived and catalogued;
- facilitating communities and professional and student networks.

Those investigating learning designs are becoming more concerned with the value of the underlying learning design of good practice. Boyle (2006) suggests that in terms of sharing, it is the scaffold, the "pedagogical pattern", that potentially provides more opportunities for reuse than the content of the learning design itself. He is particularly interested in the pedagogical commentary which would ideally accompany a learning design, providing a contextualized rationale for the design of the resource.

According to Laurillard and McAndrew (2002), to be really useful, sharing of good pedagogy should be undertaken in a holistic way: there should be full transference of the learning design with detailed information about intended outcomes, modelling of the learning experience and the context of implementation. That is, they suggest a learning design is more transferable when it is not de-contextualised, and the conditions of learning are specified.

For some, the concept behind reusable learning designs is that "an activity once specified clearly enough is reusable in a different subject matter, merely by changing the resources" (McAndrew, Weller & Barrett-Baxendale, 2006, p. 52). For example, an online debate in History could have the same underlying pedagogical structure as a debate in Psychology. By changing the learning objects or resources within the learning design, the debate becomes reusable in other contexts. While this argument is appealing, and the authors have observed instances where learning designs have been reused in this way, there is

evidence that there may be a greater tendency for teachers to repurpose learning designs in an amended form for the new context, rather than taking the template and using it "as is". Research findings in both Australia and the United Kingdom corroborate this. In each case, learning designs created using LAMS software were more likely to be used by teachers, not in their original form but as models for their own original designs (Philip, 2007; Walker & Masterman, 2006; Lucas, Masterman, Lee & Gulc, 2006). It is suggested that teachers are using the designs for inspiration and modelling, rather than direct transference.

It seems reasonable, therefore, to expect that the sharing and reuse of good teaching methods and exemplary learning designs be common practice but there is an acknowledged gap between teachers' professed positive attitudes towards sharing teaching and learning resources, including learning designs, and the actual practice of reuse (Walker & Masterman, 2006; Woo, Gosper, Gibbs, Hand, Kerr & Rich, 2004).

There are a number of barriers to sharing and reuse (Philip & Cameron, 2008). These include:

- The inability to easily customize and edit learning designs to ensure currency, or so as to better suit the subject area, grade level and learning context.
- Poor or inadequate search and discovery tools within the repository - if it cannot be found it cannot be reused or shared.
- Insufficient examples, thereby limiting selection and choice. This is as a direct result of many teachers' lack of enthusiasm to offer up their own work for sharing.

Reusing learning designs created by successful teachers is a means of sharing innovation and exemplary lessons whilst at the same time conserving resources. It is hoped that the introduction of the new planning tools with their visual and practical approach will encourage more widespread sharing and reuse of learning designs.

Good Practice in Teaching and Learning in the Higher Education Sector

A number of teaching strategies have been highlighted in the literature as representing good practice in teaching and learning. It is suggested that lecturers adopt a variety of pedagogical approaches and they should be able to explicitly acknowledge any discipline specific skills; encourage higher order thinking; practice reflection (both students and staff) and adopt student-centred teaching methods. Any planning tool that is to promote good practice should be able to accommodate all of these things.

Additionally, an effective planning tool should help a lecturer integrate professional practice with theoretical knowledge and then guide them through the process of reflection on

that practice. Hence, the level to which a planning tool can stimulate interest in the process of improving as a teacher and encourage lecturers to modify their practice in small, highly practical ways at an early stage in any programme or improvement, will be one of the criteria against which its effectiveness will be measured.

Ideally, the new tools will stress the core elements that should be followed if a learning design is to be a success and pull together the lecturer's thinking into a clear, definable structure. These tools should include details about the nature of the students, types of technology and learning activities, pedagogical approaches, the learning environment both physical and virtual, learning outcomes and the roles all the participants (John, 2006).

To establish to what extent the current planning tools reflect good practice in teaching and learning in the higher education environment, it is necessary to carefully look at that environment. The sector has been put under pressure in recent years by expansion and restructure. Not only are many lecturers now faced with larger class sizes, students have also become quite diversified in terms of ability, motivation, access and cultural background. This change has created an atmosphere where some lecturers are rethinking their teaching approaches and are seeking out what is known about facilitating effective learning. This challenge is one that a planning tool may be able to address.

Expert teaching at university level now requires mastering a variety of teaching techniques and being able to encourage most students to use the higher cognitive level processes that the more academic students use spontaneously (Biggs, 2003). Therefore, to be effective, lecturers need to draw upon different research, strategies, approaches and theories - not just traditional ones. Hence, these new planning tools need to be able to accommodate a variety of approaches to learning, different modes of delivery and a range of key principles of effective teaching in higher education and adult learning.

Finally, the use of new technologies in universities is growing rapidly with many claims for its increasing impact on the processes and outcomes of teaching and learning. Therefore, any planning tool that is being designed for widespread usage will need to accommodate all the different facets of teaching and learning in the higher education environment and be able to embrace technological integration.

Planning Tools and Documenting Learning Designs

Traditionally, a written lesson plan is how learning design has been documented and the practice of learning design, although a relatively new term, has been implemented by classroom teachers for decades. Lesson planning involves the formulation of learning goals

and objectives and the design of teaching and learning resources and strategies that are best suited to achieve these objectives (Kinchin & Alias, 2005). It involves sequencing appropriate learning activities in a logical order and designing assessment tasks and lesson evaluation criteria (McCutcheon, 1980).

Although a variety of written lesson plan formats and approaches are in use, the dominant model has varied little from its introduction by Tyler's *Basic Principles of Curriculum and Instruction* which was published in 1949. This model has tended to encourage conventional, structured and linear approaches to learning, whereas current educational theory is now promoting a more student-centred, constructivist and authentic approach to teaching and learning (Oliver & Littlejohn, 2006).

Attempts are currently being made to produce a comprehensive system that utilises a consistent data standard and vocabulary to describe the teaching and learning environment and the different theoretical approaches to learning employed. Documenting a learning design can help teachers prepare for instruction; enables them to consider different options and to be more flexible; assists with evaluating instruction; and helps them to build up confidence in their teaching (Marsh, 2004). This should be justification enough for the documentation of learning design but another practical advantage of documenting a learning design is the ability to share it and/or reuse it, and, ideally "plug and play" it (Cameron, 2007). This is a valuable resource to a time-poor profession such as teaching but unfortunately, issues of inconsistent standards and technical incompatibilities mean that it is not an easy task.

As the new planning tools adopt a consistent and compatible approach to the description of learning design, developers of teaching programs and resources will become more effective in:

- documenting the teaching strategies used in, or with, resources;
- establishing and adhering to prescribed procedures for assuring the consistency of that documentation;
- reusing elements of existing teaching resources;
- guaranteeing portability between systems;
- readily adapting designs; and
- collectively authoring and sharing designs (Beetham, 2004).

Using a Generic Template Approach

A generic template is a learning design pattern that is commonly derived by removing the subject content from a successful learning activity and distilling the activity down to its integral pedagogical parts. It represents the underlying structure so that content and resources can be added to customise the template.

Advantages of Generic Learning Designs:

- They facilitate rich learning experience based around an activity approach that learning design encourages, over the more instructivist approach afforded by many existing learning management systems.

- They are particularly useful in the initial phase of learning design to trigger thinking about new approaches, activities and strategies (Bennett, Lockyer, & Agostinho, 2004).

- They allow designers to use consistently placed tools and predicable structures which in turn allow students to navigate with ease.

- They improve instruction design efficiency, as teachers can apply structure decisions across multiple designs (Schneider, 2005).

Limitations:

- Generic learning designs can be difficult to interpret as a stand alone resource (Bennett, Lockyer, & Agostinho, 2004).

- If a particular generic design is over-used with the same students, they will become bored with the sameness of their lesson designs (Sneider, 2005).

- This process may discourage innovation and it could promote dissatisfaction in creative teachers.

- It has not yet been determined how efficient modifying generic templates is.

- A specific design can always provide a richer example than one that is created to be used in multiple contexts.

Other examples of generic and exemplar design approaches currently under development are:

- Learning Design Project (Bennett, S., et al., 2008);

- Review of e-Learning Models (Beetham, 2004);

- DialogPlus (DiBaise, 2006);

- Pedagogic task design (Ainley, et. al., 2006);

- S-o-L curriculum (Coombs, 2002);

- LAMS Activity Planner (Dalziel, 2008).

The features of the LAMS Activity Planner will be discussed in more depth below.

The LAMS Activity Planner

One of the underlying theoretical philosophies behind the development of the LAMS Activity Planner is the value and flexibility of the generic learning design. It provides 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 learning design with confidence. It provides a scaffold that guides teachers through the design process so that they can add their own content to educationally sound generic learning activities. In this way, the LAMS Activity Planner will support the sharing and reuse of effective pedagogy. Most importantly, it has been designed to produce runnable learning activities that can be readily used with students.

The LAMS Activity Planner can be used to:

- share methods used by others;
- inspire teachers to adopt a new teaching strategy and support them in doing so;
- help teachers make theoretically informed decisions about the development of learning activities and choice of appropriate tools and resources to undertake them;
- provide design ideas in a structured way so that relations between design components are easy to understand;
- combine a clear description of the learning design, and offer a rationale which bridges pedagogical philosophy, research-based evidence and experiential knowledge;
- find existing learning activities and examples of good practice which can then be adapted and reused for different purposes;
- encode the designs in such a way that it supports an iterative, fluid, process of design; and
- abstract good practice and metamodels for learning.

The LAMS Activity Planner's visual authoring environment is designed to be easy to use by non-technical teaching staff and the resultant run-time features allow real-time monitoring of the performance of learners (Britain, 2004). The basis of the system is the LAMS visual editor that allows the average lecturer to design a learning activity. It is inspired by, and heavily based on, the IMS LD specifications.

Advantages of using the LAMS Activity Planner:

- It is an intuitive visual environment which means professional technical help is not required to develop or edit a learning design.
- The "preview" mode allows the teacher to immediately "see" how the design will appear to their students.
- The product of documenting the learning design is a fully functioning machine-readable activity or activities.

Limitation:

- The designs will only run in the LAMS environment (McAndrew, et. al., 2006).

The LAMS Activity Planner encourages the sharing and reuse of exemplar learning designs without requiring lecturers to become experts in learning design or theory.

Conclusion

JISC trials indicate (Knight, 2008) there are positive results emerging from user trials of the pedagogic planner tools. The planning tools provide an opportunity to give lecturers access to a wide range of resources in the context of an activity that has maximum impact on students, and enjoys a high level of academic credibility. It is hoped that as planner tools emerge they encourage staff to share and reuse learning designs so that they might 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 in different assessment and instructional methods.

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