Learning design discussions: A conversation tool

Elyssebeth Leigh
Faculty of Education, University of Technology, Sydney

Wendy Meyers
CEDIR, University of Wollongong

Elizabeth Rosser
Assistant Head of Commerce, University of New South Wales

We begin with the premise that integrating active learning strategies into previously static modes of presenting knowledge can be complex and difficult. To reduce the complexity of the task we introduce the Learning Design Discussion Model (LDDM) for use at the beginning of collaboration by Learning Designers and Educators considering Role-Based approaches in tertiary subjects. The model helps align the core elements of a) content knowledge, b) learning objectives and c) learning design from the beginning. The model has emerged from efforts to achieve mutual agreement on use of active learning processes to support knowledge acquisition. Early trials indicate the LDDM helps identify inhibiting concerns and encourages use of interactive learning with an end result of clarification of intent, reduced unease about implementation problems and enhanced mutual understanding.

Keywords: constructive alignment**,** role-play, dialogue, learning design, model

Introduction

Academic learning environments are increasing in complexity. As universities extend the use of technology enhanced learning environments, academics responsible for managing blended or online learning increasingly find themselves involved in collaborative development with learning designers, to create learning environments that enhance students learning experience and capitalise on the affordances of new technologies and pedagogies. Those involved in the process have different needs, making collaboration neither simple nor quick. While the academic focus is on successfully conveying core subject content, a Learning Designer is concerned to enhance the quality of student learning experiences within the new environment. Both have good intentions, but the time needed to achieve understanding of each other's orientation and educational position makes collaboration complicated.

A well-formulated means of framing the dialogue as the two parties begin to work together appears likely to greatly increase effective collaboration. This paper provides a brief overview of the origins and initial development of the Learning Design Discussion Model (LDDM) – a tool developed to do precisely this. It contextualises the reasons for the emergence and provides two case studies of initial implementation. Whilst more developmental work is necessary including further research and modifications, initial work has identified the models effectiveness, particularly its potential for praxis between theory and practice and facilitating effective dialogue.

Emergence of the model

The Learning Design Discussion Model (LDDM) emerged from personal experience of problematic encounters within teams hoping to develop new ways to engage students in learning, while having little time to invest in achieving mutual understanding. As Academics and Learning Designers we had all met such problems. In fact the LDDM was partly a product of our efforts to satisfactorily understand our differing orientations to learning in the context of a joint project. It is for use at the beginning of efforts to achieve mutual understanding. As members of Project EnRoLE (2007), with a shared passion for Role Based Learning (RBL), we were aware of the difficulty of aligning content and process as a continuing barrier to use of RBL. We wanted to identify essential links between subject content and learning design, and ensure equitable contributions through use of new or reusable forms of RBL.

Finding such links can be very difficult for teams involved in a re-design process, struggling to understand each other's thinking and values, and working under pressure to alter existing modes of delivery. Educators and Learning Designers may share an interest in using RBL in a subject or course;

however, there will be hesitation about how to address the consequent shifts in thinking and working for both students and academic. While RBL is a well recognised mode of interactive learning its adds to the complexity of subject preparation. The development of the LDDM was influenced by our shared enthusiasm for RBL and experiences of encountering resistance to its use.

The current form of the LDDM began to emerge after an encounter with a model, devised at The University of Turku, in Finland, that guides development of a complex simulation on New Product Development (Putkonen & Forsten, 2007). The focus was on accurately representing relationships among: a) the '*business'* of new product design (the basic ingredient underlying everything else); b) achieving student understanding of the socio-cognitive *processes in the team* to convert problems to versatile solutions and; c) the *design* process (the mediating element between these two). The model illsutrated how these designers aligned their tasks, goals, resources, solutions and user requirements.

Of particular importance for us was the way the model aligned issues of fidelity and validity, essential factors in design of RBL, reinforcing the need to align *operation* of a learning design with its subject *content* and learning *objectives*. The idea of the LDDM was triggered by this model, together with a concern to find effective ways to introduce RBL to academics, and the need to achieve 'constructive alignment' (Biggs, 2003) between emerging designs and content. The goal is to ensure that RBL effectively addresses the issues of fidelity (how close to 'the real' is the design, and how close does it need to be) and validity (meeting the actual learning needs it is intended to address). Biggs puts it thus:

> … the educational context [is] an ecosystem, where each component affects all other components. Thus, teaching methods and assessment tasks should be aligned to the curriculum, which is expressed in terms of the learning outcomes we intend the students to achieve. (Biggs, 2007)

Formation of the model

Models are designed to address identified needs, representing an author/designer's view of problems and goals in specific ways. LDDM is no different. As educators we each had our views about how to begin a dialogue on RBL, so we began by listing those elements we each thought 'essential'. In hindsight the model (Figure 1) seems to have emerged 'fully grown', but it is the result of intense collaboration, which was in effect a prototype for the dialogue the LDDM is intended to assist.

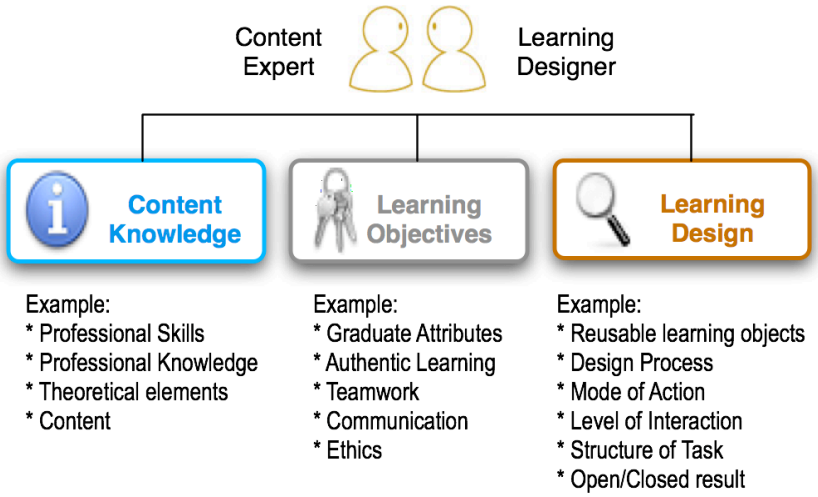

Figure 1: The learning design discussion model: Achieving essential alignment

While the components are simple, their arrangement gives the model its power. The parties' involved, content expert and learning designer, are arrayed on either side of the diagram, as in real life. Reading from left to right dialogue begins with the content expert's needs and concerns. The key to reconciling emergent perceptual differences then lies in working towards alignment of needs and outcomes. The model aligns content knowledge, learning objectives and learning design.

Models and learning design

'Learning design' refers (within LDDM) to creation of abstract representations of learning processes and intended outcomes to develop designs for replication and reuse. In this regard it is similar to traditional

lesson plans, involving application of a pedagogical model to a specific learning objective, target group and context or knowledge domain (Oliver, 2006). Academics are often not educational experts and are often weak in both theoretical and practical unpinning, when designing learning environments, most benefit from assistance (Littlejohn, 2003). 'Teaching' can be a problematic aspect of the role of the Academic. Many begin there career without relevant skills or tools to support their development as educators. Learning designs offer part of the solution.

Contemporary research on learning design focuses on describing elements and processes of representation, with limited study or description of, examples of successful designs or ways to foster reuse. While research has developed description of components of a learning design, it lacks capacity to guide educators in choosing both/either learning designs and learning objects as they develop the program of study. The LDDM offers a partial solution to problems created by this gap.

Using the LDDM to map XB

Having identified components of the model we applied Duke's (1974), 'bass ackwards' (backwards) approach to the RBL "XB, Manual for a Learning Organisation" (XB) to map what happens when it is in use. As a teaching strategy XB generates 'life-like' exchanges to illustrate the viability (or otherwise) of organisational behaviour theory. To provide opportunities for leadership practice and analysis of theory, it *delegates* to students many classroom management tasks (attendance records, presentations, grading, etc.) via a manual containing both subject content and student role descriptors (Putzel, 2006). The lecturer, conversely, adopts a leadership mode of *getting things done through/with others* (Romme & Putzel, 2003). The XB interview began with the *design* intent, since this was the least evident aspect of its structure. Results are shown in Table 1. The designer identified the primary goal as 'waking up' undergraduate students adopting a passive and reactive stance to study, at a time when they most need to engage with imminent demands of workplaces where rewards go to those actively seeking ways to contribute and engage with tasks and roles on offer.

Table 1: Applying the LDDM to an analysis of XB: Manual for a learning organisation

<table>
<tr><th>Content knowledge</th><th>Learning objectives</th><th>Learning design goals</th></tr>
<tr><td rowspan="2">▪ Leadership behaviour
▪ Delegation
▪ Organisational behaviour
▪ Teamwork
▪ Systems thinking
▪ Basic Management theories</td><td>▪ Discuss organisations as systems
▪ Identify organisational impact on behaviour
▪ Explain key roles of adult education practitioners
▪ Discuss such roles in specific contexts
▪ Detail their workplace as a system and a learning environment</td><td rowspan="2">▪ A reusable simulation of memorable experiences of delegating, leading etc
▪ A learning environment enabling enactment of relevant theories
▪ Through the efforts of all present create a system that is both in motion and available for analysis
▪ Develop learning beyond the end of class interactions</td></tr>
<tr><td>Graduate attributes
Personal
▪ Managing own work
▪ Working with others
▪ Capacity for initiative and innovation
Professional
▪ Application of expertise appropriate to practice context
▪ Understand contexts of professional practice
Intellectual
▪ Critical and independent thinking
▪ Spoken and written communication</td></tr>
</table>

Table 1 is an abbreviated version of the interview and identifies four key structural factors:

1. Belief that the intention - and practice - of delegation creates better leaders
2. Observing and analysing what is going on (WIGO) produces better decisions
3. Doing something creates an 'event' which has 'consequences'
4. Everything has a structure

Forecasting a learning design process using the LDDM

Following the XB experience the LDDM guided the first of a series of dialogues between an Academic and a Learning Designer about to develop an entirely new RBL. Table 2 summarises the dialogue. LDDM was an effective tool for both the Learning Designer and Educator to begin creating a learning

environment, offering both parties a common language in which to communicate their own pedagogical perspectives without placing impossibly demands on time and effort.

Table 2: Applying the LDDM to an emergent RBL design

<table>
<tr><th>Content knowledge</th><th>Learning objectives</th><th>Learning design goals</th></tr>
<tr><td rowspan="2">▪ Equity issues for specific groups within and educational context
▪ Complexities of discussion making within school context
▪ Effective teaching strategies for addressing equity within school
▪ Social context of school, learners and community
▪ Adapting pedagogy to suit learners' needs
▪ Inclusive Education
▪ Relevant equity policies</td><td>▪ Teamwork
▪ Appreciation of different perspectives
▪ Ability to debate various points of view
▪ Capacity to reflect on experience
▪ Understanding the social and cultural context of the educational environment</td><td rowspan="2">▪ Develop a role play that can be reused in other contexts
▪ A blended model utilizing online discussion and FTF tutorial time
▪ Incorporate into a module to run over several weeks
▪ Conversation in tutorials to support the reflective stage in the design
▪ Presentation of individual and group assessment tasks
▪ Accommodate a large group of 300+ students.</td></tr>
<tr><td>Graduate attributes

▪ Informed: Have a sound knowledge to the professional context
▪ Independent learners: Ability to extend knowledge through critical reasoning and research
▪ Problem solvers: Ability to apply logical and critical thinking skills
▪ Effective communicators: Ability to work collaboratively
▪ Responsible: Ability to make ethically informed choices</td></tr>
</table>

Conclusion and next steps

The LDDM contributes to the learning design process by offering a framework for conversation and collaboration. It models the equal valuing of content and process, knowing and doing, and knowledge and learning design. The LDDM is proving useful in the context of conversations between learning designers and educators seeking to establish mutual agreement and understanding about their goals in regard to the overall task of creating new learning designs.

New conversations (trials) are being planned. From these, the benefits (or not) of the model as a means of enabling professionals with differing perspectives and goals to combine forces successfully, and more quickly than at present, will become apparent. Further research and development of the model is required, including examining the:

1. Utilisation of a theoretical framework to guide the research, possibly Design Based Research,
2. Development of a conversation map to guide users of the model.

References

Biggs, J. (2007) http://www.johnbiggs.com.au/academic.html

Biggs, J. (2003) *Teaching for Quality Learning at University*, Maidenhead: OUP, McGraw-Hill Education

Box, G. E. P. & Draper, N. R. (1987). *Empirical model-building and response surfaces*. New York: Wiley

Duke, R. D. (1974). *Gaming: The futures language*. New York, USA: Halsted Press.

EnRoLE (2007) http://cedir.uow.edu.au/enrole/

Leigh, E. (2003). *A practitioner researcher perspective on facilitating an open, infinite, chaordic simulation.* Dissertation, University of Technology, Sydney. http://http://epress.lib.uts.edu.au/dspace/handle/2100/20/items-by-author?author=Leigh%2C+Elyssebeth

Littlejohn, A.H. (2003) Issues in reusing online resources, Kogan Page, London

Oliver, R. (2006). Reusable resources and authentic learning environments. in A. Herrington, & J. Herrington (Eds). Authentic Learning Environments in Higher Education , Hershey: Idea Group.

Putkonen, A. & Forsten, M. (2007). *The three-layer simulation game model. Case: Computer-augmented board game.* Paper presented at ISAGA 2007 Nijmegen, The Netherlands

Putzel, R. (2006). *XB - manual for a learning organization*. Burlington, Vermont.

Romme, A. G. L., & Putzel, R. Designing management education: Practice what you teach. *Simulation & Gaming, Vol. 34 No. 4, December 2003 512-530, Vol. 34* (No. 4), 512-530.

Dr Elyssebeth Leigh - Elyssebeth.leigh@uts.edu.au
Wendy Meyers – wendy.meyers@uow.edu.au
Elizabeth Rosser – e.rosser@unsw.edu.au

Please cite as: Leigh, E., Meyers, W. & Rosser, E. (2007). Learning design discussions: A conversation tool. In *ICT: Providing choices for learners and learning. Proceedings ascilite Singapore 2007*. http://www.ascilite.org.au/conferences/singapore07/procs/leigh.pdf