Reusing learning designs: Role play adaptations of the Mekong and Ha Long Bay e-Sim

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This paper reflects on the reuse and adaptation of a learning design in a different university context and in migrating from one lecturer to another. Building on and adapting the learning framework of the Mekong e-Sim (McLaughlan et al., 2001) the Ha Long Bay e-Sim forms the major assignment for students enrolled in the third year unit GEOS311 Asia Pacific Development (Department of Human Geography, Macquarie University). The e-Sim is a structured web-based role-play simulation designed to develop learners' understanding of the multiple perspectives on issues related to development and conflict over the use of resources within the world heritage site of Ha Long Bay, Vietnam. This paper examines the experience of both the lecturers and students as the e-Sim was adapted over a four year period to meet changing student needs and a different university context, including reuse within a new operating environment and a diverse student base. Student perceptions of learning outcomes are analysed, revealing a positive response to the learning experience. The paper concludes with some recommendations on the reuse of an e-Sim learning design and identifies research and development questions for further investigation.

Keywords: learning design, online role play, Mekong e-Sim, reusability, migration

Introduction

The Ha Long Bay e-Sim is a structured role-playing web-based simulation forming the major assignment for students enrolled in Asia Pacific Development (GEOS311, Macquarie University). Adapted from the successful learning design of the Mekong e-Sim (McLaughlan, Kirkpatrick, Maier & Hirsch, 2002), the Ha Long Bay e-Sim is an example of how learning designs can be reused not only across institutions but from one lecturer to another. This paper examines the adaptation and reuse of this learning design in a different university and program context and reflects on the experience of both the designer and students involved. It begins by outlining the original online role play, the Mekong e-Sim, and then reflects on the key changes made over a four year period in order to reuse the design in the form of the Ha Long Bay e-Sim, taking into account a new operating platform, curriculum context, the needs of a different student base, and changing course convenors. A discussion of the adapted e-Sim's evaluation and student perceptions of learning outcomes are analysed, and the paper concludes with some recommendations on the reuse of a learning design.

The Mekong e-Sim: Best practice role play

The Mekong and Ha Long Bay e-Sims incorporate Information Communication Technology (ICT) into a role play simulation, as represented in a range of best practice examples (Vincent, Shepherd & Viet, 2002; McLaughlan & Kirkpatrick, 1999; McLaughlan et al., 2001). The Mekong e-Sim utilized unique design features to increase and facilitate student online interaction and debriefing (McLaughlan Kirkpatrick, Maier & Hirsch, 2002). Recognized as best practice[i], the Mekong e-Sim used ICT to allow the conventional face-to-face role play timeframe to be extended and played out partly within student-determined timeframes. This provided greater opportunity for reflection and technical analysis of options during decision-making by the participants, and also a written record of the interaction. Students who would otherwise be restricted by time or distance were now able to participate (McLaughlan & Kirkpatrick, 2001). The Mekong e-Sim was constructed around four stages: briefing, interaction, forum, debriefing (for details on these stages see McLaughlan et al, 2001; 2002). Throughout these stages students learnt about their adopted role, the setting of the simulation and the issues that created interdependence between them. The first author was involved with the running of the e-Sim at the University of Sydney and upon beginning her lectureship at Macquarie University was interested in reusing the learning design in this new context.

Reusing the learning design – the Ha Long Bay e-Sim

Situated within the Department of Human Geography at Macquarie and with encouragement from the Mekong e-Sim designer, Rob McLaughlan, Lloyd began the process of adaptation with assistance from a Macquarie University teaching development grant and IT support from the Centre for Flexible Learning. In its new form the Ha Long Bay e-Sim forms the major assignment for students enrolled in *GEOS311 Asia Pacific Development*. This four credit point course deals with processes and consequences of development in the Asia Pacific region. The e-Sim focuses on one specific international problem related to the conflict over resources in the world heritage site of Ha Long Bay, northeast Vietnam. Students are expected to allocate at least twelve hours per week for this activity and the assessment comprises thirty five percent of their grade. Approximately 30–40 students enroll in the course each year, drawn from a range of disciplines including human geography, education, law, resource and environmental management and business. A substantial number of these students are enrolled externally and are distributed throughout Australia.

Like the Mekong e-Sim, the Ha Long Bay simulation aims to develop a range of skills, including students' awareness of the social implications of their discipline, a greater understanding of teamwork and cross-cultural perspectives, the ability to use ICT effectively, and a critical capacity to deal with complexity and ambiguity (McLaughlan *et al.,* 2001). In particular, the e-Sim enabled the participation of external students who often miss out on group-based activities and the skills that come as a result of this.

The Ha Long Bay e-Sim continues with the structural approach of four stages, beginning with students researching their adopted persona, ranging from industry and community groups to government and international organisations, and key issues surrounding the scenario. An online public inquiry takes place that is designed to trigger interaction between the persona, with each required to respond to a development dilemma. The event is modelled on a real situation and is supported by online resources, for example, media reports and government documents, which the persona draw on to inform their decisions. Learning occurs at all stages but particularly as a consequence of participants engaging with the scenario through a range of assessment tasks, as well as reflection upon the interactions between participants (Lloyd, 2004).

The challenges of reuse and migration

The following were the key adaptations made in the original migration of the Mekong e-Sim, to the Ha Long Bay e-Sim at Macquarie University. First, the Mekong e-Sim used the Learning Management System (LMS) *Blackboard* as its main platform while at Macquarie University WebCT is used. While both systems allowed for sending e-mail, text chat, and threaded discussion forums, the facilities for setting up group work areas differed and this required the restructuring of group communications. Second, to meet Macquarie University's diverse student needs (international and external as well as internally-based students) and to correlate with the assessment requirements and structure of the unit, the length of the e-Sim was extended from four to seven weeks. A significant adaptation associated with this lengthening was the inclusion of an e-Sim related question in the exam. This aims to ensure that all participants engage in the e-Sim as there are individual assessment criteria as well as a group mark. However, the overall number of assessment components have been scaled down, making it more manageable. Third, as the e-Sim focused on a different scenario, new supporting materials, personas and events had to be developed within a short time frame. This was made possible by financial assistance from a Macquarie University teaching development grant. One of the key challenges in the sustainability of the e-Sim is the constant need to update resources, requiring time and finances.

In 2006 the unit was convened by a new lecturer and saw a process of further adaptation. The handover took place over a three month period and involved familiarisation with the technical components and the resources. Follow up meetings consisted of further detail as to the running of stages and assessment components. The previous convenor was constantly available for consultation during the running of the e-Sim. In areas that had been previously identified as challenges, specific adaptations were made. This included streamlining the assessment through making particular components pass/fail only. The importance of group work was emphasised and subsequently time spent on team preparation was increased and an assessment component comprising self reflection on group dynamics and conflict

resolution strategies was incorporated. A particular assessment question was refined to emphasise participants' need to develop empathy with their persona.

Student learning and perceptions

The Ha Long Bay e-Sim has been evaluated on its design and implementation over the four years it has run (2003–2006). The following is an overview of the responses to the online survey in 2003. Results indicated that students either strongly agreed or agreed that the e-Sim:

- developed negotiation skills (90%); problem solving skills (66%); and sharpened analytical skills (76%)
- helped to develop the ability to work as a team member (86%)
- improved skills in electronic communication (e.g. email, discussion forum) (81%)
- developed their ability to seek and utilize knowledge from a range of sources (72%)
- contributed to greater confidence to work in an international environment (72%); and a 'virtual environment' (90%)
- developed awareness of the political, social and economic dimensions of decision-making in the Ha Long Bay region (95%); and knowledge of organizations involved in development of the Ha Long Bay region (96%)
- developed awareness of the values and attitudes of persona (100%) and other personae (95%)
- developed the ability to see development issues from multiple perspectives (95%)
- was enjoyable (86%).

Responses to the open ended question about what the student found most useful / enjoyable about the e-sim also provide further support for the e-sim's role in contributing to student learning. One student responded "I enjoyed the whole experience. Got a lot more out of it than any essay could provide". Another stated that "I found the most enjoyable aspect of the e-sim was that it was a unit of work that was entirely different than what I had done previously at uni. It was a welcome change than just writing out straight essays or critiques". Therefore moving the focus from essay-based assessment was valued by students and added to their learning experience. As another student said: "Well done for finding a new way to help us learn…it was interesting and great to see everyone take it so seriously and yet have fun at the same time".

Another key objective of the e-sim was to increase the ability of external students to engage in group work with others in the course. One external student stated that they enjoyed the "constant communication with others...as an external this is vital so you feel like you always know what's going on on-campus". In general the students noted that the WebCT platform was useful in allowing external and internal students to communicate and work as a team. As another external student noted: "I found that the Web CT extremely useful as I was easily able to gather the information. It also made life easier trying to contact other group members which is always difficult for external and part-time students who are generally very hard to contact." For a more detailed discussion on evaluation results see Lloyd (2004).

Conclusion

The Ha Long Bay e-Sim provides a case study of how a best practice learning framework can be reused and migrated for effective learning in a new context. The initial migration from the University of Sydney to Macquarie University saw a significant adaptation to new technological and institutional requirements. Specific modifications included an extended timeframe for the activity, new stages and integration of the final debriefing stage into the final exam, new resources and online supports. The convening of the unit by a new lecturer saw a further process of refinement in assessment and preparation. This process has affirmed that, as a learning design, the e-Sim is robust and sustainable given appropriate preparation time and support. In terms of recommendations the authors would suggest the following:

- The migration and reuse of the e-Sim was only possible with institutional financial assistance and support from designers and experienced users. Preparation time is crucial for a smooth transition.

- It facilitates the process if convenors are computer literate, experienced with e-learning platforms and enthusiastic about this type of learning design.
- Further research could take place to assess the quality and quantity of the learning from the e-Sim as opposed to more traditional essay-based learning.
- We would recommend an audit of time invested in the development, running and evaluation of the e-Sim to ascertain if it is sustainable and justified by the quality of the learning outcomes.

References

Lloyd, K. (2004). Playing Games with conflict: the Ha Long Bay e-sim, *Acquiring and Constructing Knowledge Through Human–Computer Interaction: Creating New Visions for the Future of Learning* pp171–178, McKay, E. (ed). International Conference on Computers in Education 2004, Melbourne, 30th November – 3rd December 2004 ISBN: 1863355731

McLaughlan, R. G. & Kirkpatrick, D. (1999). A Decision Making Simulation using Computer Mediated Communication. *Australian Journal of Educational Technology*, 15(3), 242–256 http://cleo.murdoch.edu.au/ajet/ajet15/mclaughlan.html,

McLaughlan, R., Kirkpatrick, D., Hirsch, P. & Maier, H. (2001). Using Online Roleplay/Simulations for Creating Learning Experiences. *CAL-laborate*, October, 23–25.

McLaughlan, R.G. & Kirkpatrick, D. (2001). Peer Learning Using Computer Supported Roleplay-simulations, in Boud, D., Cohen, R. & Sampson J. (Eds), *Peer learning in higher education: Learning from and with each other*, 141–155, London: Kogan Page.

McLaughlan, R., Kirkpatrick, D., Maier, H. & Hirsch, P. (2002). Description of Mekong e-Sim: An online role-play simulation about international natural resource management issues. Retrieved March 11, 2004, from Learning Designs Web site: http://www.learningdesigns.uow.edu.au/exemplars/info/LD42/index.html

Vincent, A., Shepherd, J. & Viet, R. (2002). Description of Macquarie University Middle East Role-Play Simulation about Politics. Retrieved March 11, 2004 , from Learning Designs Web site: http://www.learningdesigns.uow.edu.au/exemplars/info/LD3/index.html

Acknowledgements

Bionotes

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[i] The Mekong e-Sim was awarded a number of accolades. These include the ascilite award for Best Web Project 2001; UniServe National Science Teaching Award 2002; Commonwealth of Learning Excellence for Distance Educational Materials (EDEA), 2002.