

## ABSTRACT

*Students adopt the roles of stakeholders and respond to proposed development issues in the Mekong River basin of South-East Asia in the context of a public inquiry. This enables students to develop multiple perspectives on development projects, as well as a range of generic graduate attributes.*

## KEYWORDS

Development; Mekong, Sustainability; Graduate Attributes; Environmental Decision Making

## CONTACT

A/Prof Holger Maier, School of Civil & Env Engineering, University of Adelaide, [hmaier@civeng.adelaide.edu.au](mailto:hmaier@civeng.adelaide.edu.au)



## DESCRIPTION

As part of the Mekong e-Sim, students adopt the roles of stakeholders and respond to proposed development issues in the Mekong River basin of South-East Asia. Through research and interaction with other roles, participants build a case as to whether the proposed development should proceed, which they discuss during an on-line public inquiry.

## AUDIENCE/GROUP SIZE

The Mekong e-Sim is designed to cater for between 50 and 150 students from various institutions. As the focus of the Mekong e-Sim is the exploration of the economic, social and environmental impact of large engineering projects, such as the construction of magadams, its target audience includes students from a variety of disciplines, including engineering, environmental science, geography, anthropology, Asian studies, Media studies, law etc.

## LEARNING OPPORTUNITIES

The learning objectives of the Mekong e-Sim include:

- To gain an understanding and appreciation of the complexity of environmental systems and the implications this has for decision-making in relation to development projects
- To learn to see development projects from multiple perspectives
- To gain an improved understanding of the effect of development projects on the environment and society
- To develop communication, research, critical thinking, negotiation and decision-making skills and an appreciation of cultural differences and approaches
- To help prepare students for working in multi-disciplinary and international environments
- To develop an understanding of the need for, and the meaning of, sustainable development.

## RESOURCES

The Mekong e-Sim has extensive resources for students and facilitators. Student resources include a comprehensive handbook, as well as the Mekong e-Sim website within the University of Adelaide learning management system. The website includes background material (e.g. e-Sim process, FAQ, comments from past students, multimedia presentations, background readings, role profile descriptions etc.), space for private communication for each of the groups adopting a particular role and opportunities for public and private interaction between roles via discussion boards and e-mail. Resources are also available for academic staff interested in participating in the Mekong e-Sim.

## ASSESSMENT

Assessment of the Mekong e-Sim is based on a number of group submissions, including the establishment of a shared understanding of the role adopted by groups of students, the submission to the public inquiry and the degree of participation in the e-Sim. Individual assessment tasks include a number of online quizzes and the debriefing report.

## LEARNING ACTIVITIES

The duration of the e-Sim is six weeks, with two weeks for briefing (including familiarisation and role adoption), 2 weeks for interaction (interaction and public inquiry stages) and 2 weeks for de-briefing.

### **Briefing Stage**

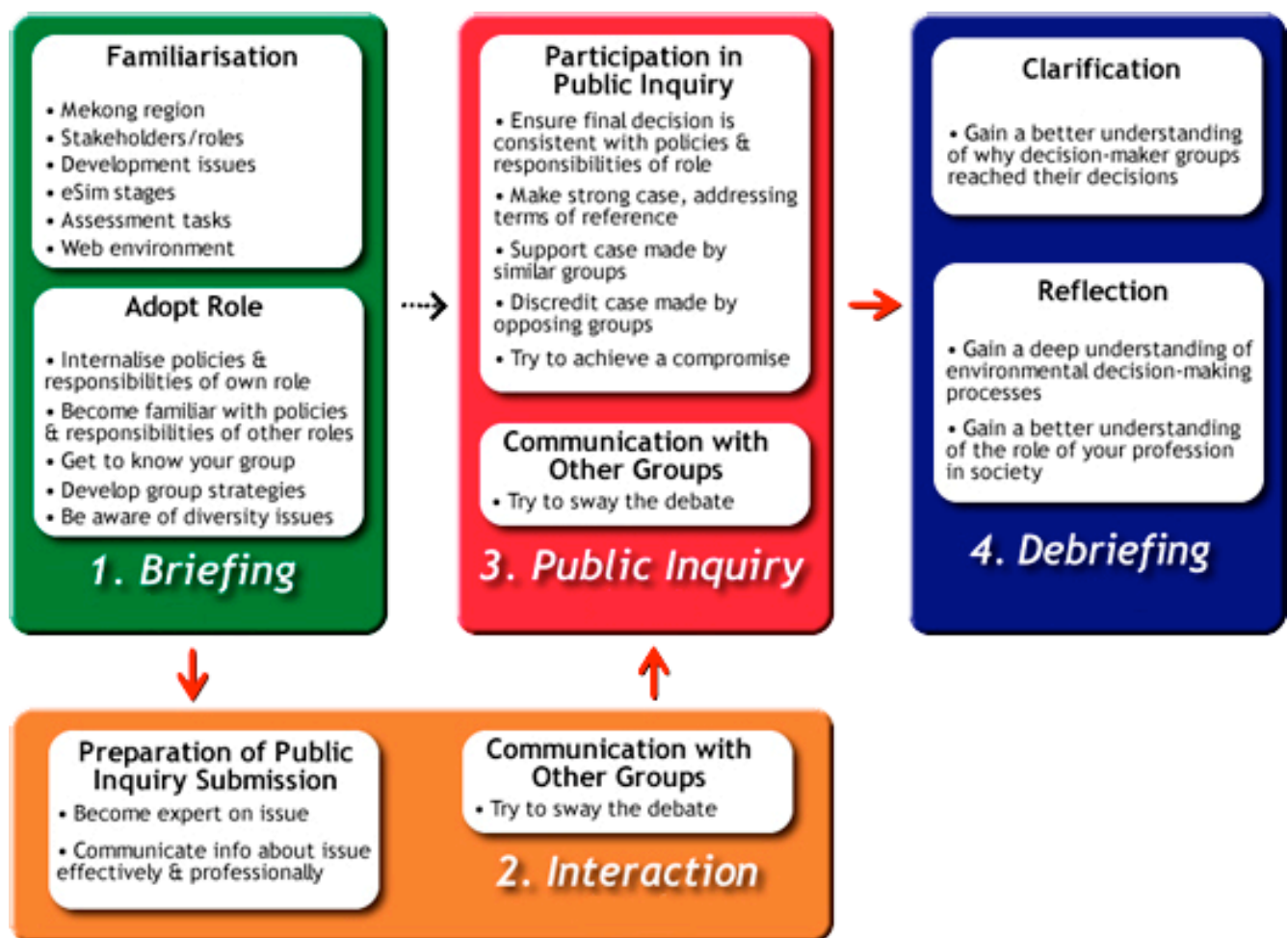
In this stage, participants become familiar with the e-Sim structure, geographical context, requirements and technology. This requires them to obtain information from a range of sources to develop an understanding of the responsibilities, views and strategies of their role.

### **Interaction Stage**

This stage comprises interactions between different roles in response to events that have occurred (e.g. the announcement of the public inquiries) and the actions of other roles. Participants are therefore required to operationalise the understanding of their role and the simulated environment gained during the briefing stage (i.e. participants have to act in their role in response to simulated events). During this stage, participants produce their submission to the public inquiry and try to sway the debate about the development issue that is the focus of the public inquiry in line with the policies and responsibilities of their role.

**Public Inquiry Stage** During the Public Inquiry stage, participants make their submissions to the public inquiry, which is debated among the different roles. At the conclusion of the public inquiry, the roles whose responsibility it is to chair the public inquiries announce their decision, including a detailed justification of why this decision was made.

**Debriefing Stage** In the first week of the Debriefing stage, participants remain in their roles and have the opportunity to seek clarification from the decision-maker groups about why they arrived at their decision (i.e. why certain points were not taken into account or why certain factors were weighted more heavily than others). Participants are required to form alliances (consortia) with other, like-minded, groups and each consortium has to develop one or more questions, which they put to the decision-maker groups. In the second week of the Debriefing stage, participants step out of their role and identify what they have learned as a consequence of participating in the e-Sim. This is achieved during face-to-face sessions that use a structured process of guided recall, reflection and analysis of the roleplay-simulation based on the experiences of the participants present. It is here that participants have time to reflect on the occurrences of the previous five weeks and to draw their own conclusions.



### FACILITATOR ISSUES

The Mekong e-Sim requires minimal facilitator input during the simulation. Resources have been developed to cater for those academics who would like their students to participate in the e-Sim, or who would like to run the Mekong e-Sim at their institution.

### REUSABILITY

Because the Mekong e-Sim has been designed in a standard learning management system, it has a high degree of reusability and has already been used as the template for a number of other e-Sims, including the Asia Development e-Sim at Macquarie University, the Disaster Down Under e-Sim at the University of Adelaide and the Big Paper b-Sim at the University of New South Wales. Because of its interdisciplinary nature, the Mekong e-Sim is also caters for participants from different disciplinary backgrounds, as discussed above.

### REFERENCES AND LINKS

<http://www.adelaide.edu.au/situationallearning/examples/mekong/>