



## Dental Amalgam eSim

### ABSTRACT

*The Dental Amalgam eSim is an online role play methodology conducted over a 2 - 3 week period. It can be used to explore multiple perspectives towards dental amalgam issues.*

### KEYWORDS

*Dentistry, amalgam, multiple perspectives, environment*

### CONTACT

*Judi Baron, University of Adelaide*  
[judi.baron@adelaide.edu.au](mailto:judi.baron@adelaide.edu.au)

### DESCRIPTION

The Dental Amalgam eSim is an online role-play methodology conducted over a 2 - 3 week period. It can be used by Dentistry students to explore multiple perspectives towards dental amalgam issues. The Dental Amalgam eSim has been used with Dental students in the Middle East where use of amalgam is presently a contentious issue. The scenario and stakeholder roles have been designed specifically for the United Arab Emirates, however amalgam use is a global issue and modifications to make it relevant for Dental students in other parts of the world does not require a great deal of time or effort. The scenario is that the Ministry of Health wants the Dental Board to present its opinion on the use of dental amalgam. The Dental Board in turn decides to make this a public inquiry and invites opinions from various stakeholders. The Press are also invited to inform of latest developments and news in the area of dental amalgam. The initial trigger is that the Dental Board announces the need for a public inquiry into the use of dental amalgam in direct restoration and invites various points of view via the discussion board forum. Various triggers follow this throughout the role-play eg news release and latest research findings and these serve to keep the debate lively and involve deeper exploration of the issues. The roles consist of government and private dentists, restorative specialists, adult patients, parents of child patients, lawyers, journalists, advisors to the Ministry of Health (government officials), consumer representatives, public health officials and dental supplier representatives.

### AUDIENCE/GROUP SIZE

- ❖ 110 students, groups of 4-5 per role, two public inquiries conducted simultaneously via discrete discussion board forums and adaptive release feature of Blackboard in order to cater for large class size
- ❖ Bachelor of Dental Surgery students – second year level
- ❖ Complements lectures on the mechanical properties of dental amalgam

### LEARNING OPPORTUNITIES

This learning design aims to:

- ❖ develop a better understanding of what amalgam is, its mechanical properties and suitability as a restorative material
- ❖ consider the advantages and disadvantages of the use of amalgam, from both patient and environmental perspectives
- ❖ develop communication skills with representative groups that have an interest in oral health
- ❖ develop research skills and strategies to evaluate new dental technologies.

### TIME AND SETTING

The Dental Amalgam eSim has been conducted within the University of Sharjah, United Arab Emirates over a 3 week period. There are plans to conduct it within the School of Dentistry, University of Adelaide with some modifications to the personas in order to ensure that it is culturally relevant.

## RESOURCES

All resources are embedded in the online learning environment (Blackboard). Resources include pdfs and external links to journal articles, as well as videos and numerous audio-recorded interviews with a Specialist Dentist. The release of the resources is staggered and often coincides with a 'trigger' or news flash announcement.

## ASSESSMENT

The tasks that participants have to complete:

- ❖ Work in groups (same personas) to develop group viewpoint via group discussion boards
- ❖ Undertake research
- ❖ Form alliances and/or communicate with other roleplayers via discussion boards
- ❖ Summarise viewpoint and submit to class discussion board forum (public inquiry submission) - group mark 50%
- ❖ Summative online quiz - 10%
- ❖ Debrief Report – individual mark 30%
- ❖ Percentage of overall course assessment - 20%

## Dental Amalgam eSim Process

- ❖ Email with persona login and link to online roleplay sent to all students
- ❖ Study Briefing Pack and role profiles
- ❖ Group familiarization via group discussion board
- ❖ Trigger via Announcement
- ❖ Group and class interaction via discussion boards
- ❖ Resources released week by week
- ❖ Further triggers
- ❖ Public Inquiry group submission
- ❖ Summative quiz
- ❖ Debrief report and Evaluation

## Students engage in the following activities:

- ❖ Group discussion board interaction
- ❖ Class discussion board interaction
- ❖ Research
- ❖ Forming of alliances
- ❖ Submission of public inquiry submission (group)
- ❖ Summative quiz (Individual)
- ❖ Debrief Report (Individual)
- ❖ Evaluation (Individual)

## FACILITATOR ISSUES

- ❖ With large class numbers, it is necessary to set up two or more communication areas in the learning management system (discussion board forums) and use adaptive release feature linked to logins
- ❖ Group and class discussion boards need to be monitored and moderated on a regular basis
- ❖ Regular 'triggers' ie news announcements need to be made by the facilitator to ensure ongoing momentum

## REUSABILITY

Other dental issues could be used with the same personas, eg chlorination of bottled water. Resources and triggers as well as summative quiz would need to be modified.

## REFERENCES AND LINKS

Baron, J., Steele, L., Al Kawas, S. (2009) Health Sciences Case Study, in Marshall, S. & Kinuthia, W. (Eds), *Cases 'n' Places: Global Cases in Educational and Performance Technology*, Information Age Publishing (in press)