



Novel Earth Science outreach initiatives from the University of Canterbury, New Zealand

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In today's classroom, motivating students is one key factor to achieve a good learning outcome. New teaching methods need to be developed providing enough excitement and visible benefits for the students, i.e. applying the concept of "Edutainment" in secondary and tertiary education. For that purpose, an interactive geological/geographical-didactical game based on the well-known "Memory" game has recently been developed that matches the current New Zealand curriculum focussing on earth surface processes and landform development. Visualisation is one key element as the students have to link terms and theoretical knowledge to typical images of landforms. Interaction is achieved by the students playing in small group ideally without direct input of the supervising teacher/lecturer. The level of knowledge tested by this game can easily be adjusted to the level of the class by offering different alternative game "modes". The current version presented here as well as earlier, less-professionally produced versions have been successfully tested at different levels in high schools as well as at university undergraduate level.

In another innovative venture, an interactive and entertaining play performed in schools by University of Canterbury drama students has been successful in increasing students' understanding of how scientific thoughts on the origins of the Earth have changed over two centuries. "From the Curious to the Sublime" uses some scripted performances to portray two distinct situations: the first showing a Curiousi of the 17th century, showing off his collection of rare and unusual rocks, fossils and other oddities, all unclassified; and the second showing James Hutton in 1780, explaining to associates how careful observations and classifications of rocks and fossils leads to the foundation on which the natural history of the planet was written. Following each scripted performance the school students, in small groups, attempt to describe and "sell" real rocks and fossils to the Curiousi and later to James Hutton, an entertaining spectacle for the audience. Excitement is increased by the winning group gaining prizes of small fossils to keep. Teacher feedback has been extremely positive for the seven years the play has been produced.