

## Geoscience education – starting early with TESEP

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The resource sector boom of the past few years has highlighted, yet again, that we in the resources sector can't manage the boom to bust cycle with respect to geoscience training and employment. Previously, downturns in the resource sector in Australia have resulted in a significant loss of geoscientists to other careers, a decrease in the number of students studying geoscience, a decrease in the number of geology departments, a decrease in the number of teaching staff and consequently a decrease in geoscience graduates. If the resource sector exerts such a big influence on geoscience education we will always struggle to maintain a continuous and adequate supply of geoscientists through energy and commodity cycles.

As Trevor Powell will discuss in the next talk on a National Tertiary Geoscience Education System (ANTGES), the mechanism for funding geoscience departments is also partly to blame – most geology departments are uneconomic under the current funding model and need to seek external funding or internal cross-subsidisation between departments.

In recognition of the current issues in industry and universities there are many exciting initiatives in geoscience education such as ANTGES. In Western Australia, where the need for geoscience-educated staff is greatest, there have been a significant number of new initiatives covering primary, secondary (Earth Science Western Australia – ESWA; CSIRO's Scientist in Schools Program) and tertiary geoscience education (the Minerals Institute) and graduate research (MERIWA and various partnerships between WA Universities and resource companies). A number of these initiatives rely on attracting younger students to earth science.

I want to focus on the Teacher Earth Science Education Program (TESEP) initiative out of the Victoria/Tasmania Branch of PESA. TESEP grew out of an initial Geoscience Education Workshop held at the AAPG International Meeting in Perth at the end of 2006.

TESEP is aimed at Year 7-10 students and aims to broaden the knowledge and equip

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Earth and Environmental Science (EES) teachers with current teaching resource material to enthuse and stimulate students.

An EES teacher survey run in July 2007 resulted in eight topics being chosen for TESEP professional development workshops. Topics include Climate Change, Clean and Alternative Energy, Fossil Fuels and the Uranium Debate and Our Place in Space. These eight topics will be presented at up to thirteen centres in all eastern states and territories through the years 2008 to 2010. Fieldtrips linked to local areas will be run at each location.

The workshops will explore the critical link between EES, resources and Australia's economy. Participants will gain an awareness of future trade and professional career paths in the energy/minerals and environmental sciences related industries.

As Dr Mark Butler said in a recent article in PESA News - initiatives that have the greatest impact are those that will help young people in our schools maintain the 'wonder'.