

Water Education Case Studies

Project Title: Integrating Water Education into the Geography Curriculum
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Abstract

The project focused on the development of specialist water education materials that were linked to the curriculum for teaching Geography in NSW schools. Specialist writers with experience in curriculum development were engaged to produce a suite of resources related to water education for Years 5 and 6 Primary School students and Years 7-10 High School students. The course materials involved imaginative exercises and group work. This program supported the objectives of the Water for Life Education Program by developing relevant water sustainability understandings, attitudes and behaviours in young people, and equipping them to play an informed and active role in conserving water for current and future needs.

The Challenge

What need was being addressed?

The project dovetailed existing curriculum materials around water education that had been present for a long time with current information and case studies. A severe drought in NSW and water restrictions in place across most of metropolitan Sydney acted as an additional driver for this project.

By engaging the GTANSW and developing targeted training packaged for teachers, including in-service training, this project also aimed to build the capacity of teachers to design and deliver relevant water education programs for their classes. Professional development was considered a critical outcome for this project.

Stakeholders

Who participated in the project?

This project was initiated by **NSW Department of Water and Energy's Water for Life Education Program** who approached the **NSW Geography Teachers' Association** to develop water education specific content for use in NSW schools. The project was also informed by a reference group including: the Geography Teachers' Association of NSW, **NSW Science Teachers' Association**, and the NSW Department of Water and Energy, with the support of the **NSW Department of Environment and Conservation (now NSW Department of Environment and Climate Change)**, the **NSW Department of Education and Training** and the **Office of the Board of Studies. Consultants** were engaged by the project reference group. Each one had specialist experience in developing curriculum based materials for their target audience, in this case Years 5 and 6 Primary School students in Human Society and Its Environment and Years 7-10 Geography students.

Project Steps

What methods and tools were used?

Project materials and content were approved by the NSW Department of Education and Training and incorporated a range of best practice teaching techniques focused on use of appropriate technologies and student centred learning. Much of the material was supplied in small vignettes so that it could be partially adapted and or integrated into an existing school curriculum. This flexibility of approach was an important element of the project and it facilitated a greater uptake by teachers and schools who reflected lessons to suit their classes, surroundings and most prominent water issues. In some cases the water education materials were presented alongside other established water programs like OceanWatch and or Streamwatch so as to enhance the offerings available to students.

During the development of the content for this project in 2007, the GTANSW delivered the draft materials to teachers at three workshops, for consultation feedback. Their input was reflected in the final documents. The GTANSW conducted a further 22 workshops in 2008 for teachers across NSW and these forums were used to present and workshop the project resources. The feedback provided by teachers ensured that best practice pedagogy was embedded into this project including a range of teaching and learning styles and methodologies.

Project Outcomes

How persuasive was the project in addressing the need?

There has been a positive initial response to the project materials from participating schools and teachers and a more extensive evaluation of the project is currently underway. The project has been promoted through the GTANSW quarterly journal and will be promoted at the annual conference, where teachers are to receive a CDROM of the materials. It is also available for download on the GTANSW website.

A significant element of this project has been the delivery of the materials in a format that is readily adaptable and changeable. Project content is constantly evolving and being integrated into a range of specific contexts. As time goes on it will be interesting to evaluate and track the development of these materials and reflect on how participants are driving the project's implementation and adaptation.

Reflections

What lessons were learned?

The incorporation of participant feedback during the development of the project resulted in a better suite of materials and highlighted the importance of an adaptable and flexible approach to project design.

The role of the project reference group provided some clear direction on how the materials should link to the existing curriculum.

Going forward, the planned evaluation of this project will provide key insights into how the material has been adapted and utilised by NSW schools. This will inform future applications of these methods and may indeed be a useful learning tool for the development of other sustainability education based courses.