

Inquiry Oriented Learning in Science

Where is the University of Tasmania AFFA Activity at in June 2012? Project Summary and a Reflection on the AFFA initiative

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Project Summary June, 2012

Thanks to the AFFA we have redeveloped two practicals in a zoology first year unit called Biology of Animals (KZA161) at UTAS. These changes were implemented in Semester 1, 2012. Much of this work was completed by me and Dr Ashley Edwards with guidance from Prof Sue Jones and advice and assistance from Ms Kate Hamilton.

The redevelopments included:

- Implemented of a self-paced tutorial application on basic use of a microscopes (developed by Latrobe University) in week 1. The activity gave students an introduction to microscopes before their first formal practical and also gave me a chance to meet students in small groups early in the semester.
- Having students gain basic microscope skills through a tutorial rather than during formal practical time freed up space in their first formal practical class (week 2) to implement an inquiry-orientated activity on water bugs. This activity added a little fun to their first practical session and allowed me to cover important concepts like natural selection and adaptation.
- Redesign of early lectures to make room for covering more in depth coverage of natural selection and adaptation. These are important concepts to understand in this unit which covers the characteristics of the major invertebrate and vertebrate phyla from the perspective of an evolutionary interpretation of diversity.
- Redeveloped an existing flexible learning practical on the phylum Mollusca to make it more inquiry-orientated. During the redevelopment we held a focus group session with past students and PASS leaders (past and present) to discuss implementing inquiry-orientated activities into this practical. The aim was to test some of our ideas on this group. The group also came up with some great ideas that were then incorporated into the practical.

Our other activities include:

- Purchase of new display material (e.g. prepared slides and animals specimens) and technology for the laboratory.
- Contributed to staff meetings in Zoology on implementing other inquiry-orientated activities into zoology units.
- Added an inquiry-orientated component to our demonstrator training workshop.
- Have begun developing an existing osmosis practical in another zoology unit to make it more inquiry-orientated.

The AFFA Initiative – A Reflection

As an early-career university teacher the experience of working on an AFFA initiative has been invaluable. The grant gave me the time to develop two practicals, to learn about inquiry-orientated learning and to develop a process for developing new teaching material. Most importantly I received useful feedback on the work and established contacts across the country.