



NSW 2006 AUSTRALIA

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SciFER ANNUAL REPORT, 2002

The Science Faculty Education Research Group (SciFER) continued to meet monthly during 2002, with a program of lunchtime talks, a journal club and a highly successful seminar on assessment presented by Professor David Boud, arranged jointly with UniServe Science. The lunchtime talks reported on both SciFER-funded projects and recent Teaching Improvement Fund grants. By arrangement with Dr Adrian George, Chair of the Faculty Teaching Committee, presentations by recipients of Faculty Teaching Development Grants were combined with SciFER talks during October, November and December. This proved very satisfactory as the audiences for both types of talks are essentially the same.

I hope that we can continue this arrangement during 2003.

The SciFER web page was created early in the year and contains a program of the 2002 activities and descriptions of all funded projects. It will become an increasingly useful record of SciFER activities.

There have been two previous rounds of SciFER grants, in 2000 (4 projects, due for completion by December 2001) and 2001 (4 projects, due for completion by February 2003). The current status of these projects is given below.

2000 PROJECTS

2000:1 Learning Quantum Mechanics (\$3500, Peter Fletcher)

Finished, unused funds (\$1937) returned to the Faculty. Dissemination: details given in the SciFER Annual Report of 2001.

2000:2 Integration of Science Courses (\$3500, Adrian George)

Finished, all funds expended. Dissemination: two poster presentations, the first as listed in the 2001 Annual Report, the second at the First Year Experience Conference at the University of Bath, July 2002. A full paper has been submitted to *Research in Science Education*.

2000:3 The Role of Memorising in Learning Science (\$2500, Sue Gordon/Jackie Nicholas)

Finished, unused funds (\$546) returned to the Faculty. Dissemination: three conference presentations, the first two as given in the 2001 Annual Report, the third at the 10th Improving Student Learning Symposium, Brussels, September 2002. One journal article in press, Cooper I, Frommer M, Gordon S, Nicholas J, University Teachers' Conceptions of Memorising in Learning Science, *Higher Education Research & Development*, **21**(3).

2000:4 Instrument for Testing Transferability of Mathematical Skills (\$3500, Sandra Britton/Manjula Sharma)

Due for completion by the end of 2002. Dissemination: the 2001 Annual Report lists one refereed paper, one poster and two conference presentations. There is now a further refereed conference paper, Britton S, *Are students able to transfer mathematical knowledge?*, 2nd International Conference on the Teaching of Mathematics, Crete, July 2002.

2001 PROJECTS - INTERIM REPORTS ATTACHED

2001:1 First Year Student Experiences in Physics and Biology: The HSC Syllabus Changeover (\$5000, Chris Stewart/Manjula Sharma)

Project well under way, not yet completed.

Dissemination: three refereed conference papers, four unrefereed conference presentations.

Full details in the Interim Report provided by Chris Stewart.

2001:2 **Learning from Feedback** (\$2965, Charlotte Taylor)

Project deferred with the agreement of the Dean until 2003. Interim Report from Charlotte Taylor attached.

2001:3 **The Role and Usage of CLMs in Supporting Student Learning across Life Sciences**

Disciplines (\$5000, Rosanne Quinnell/Elizabeth May) Interim Report from Rosanne Quinnell attached.

2001:4 **How do Students in a Science Degree Gain Skills in Interpreting and Understanding the Mathematical Relationships in Quantitative Data?** (\$2000, Rosanne Quinnell) Interim Report from Rosanne Quinnell attached.

SciFER continues to provide a necessary forum for the discussion of ideas in research-based teaching across disciplines, and for the dissemination of current research activities. We are grateful for the support you have given to the group since its inception and hope that further research projects involving staff from the various Schools and Departments in the Science Faculty will be proposed next year.

Could we meet early in 2003 to discuss the possibility of a new round of grants?

Yours sincerely,

Jenny Henderson

SciFER Coordinator

<http://www.maths.usyd.edu.au:8000/u/jennyh/scifer/SCIFERindex.html>

Bridging Course Coordinator

Cc: A/Prof Mary Peat