

FACULTY OF EDUCATION, UNIVERSITY OF CAMBRIDGE

EASTER TERM 2004

## CAMBRIDGE COLLOQUIA IN MATHEMATICS EDUCATION

Monday 10th May 2004 at 5.30 p.m., Room 205, Mary Allan Building, Homerton College

Anne Thwaites, Fay Turner, Dr Peter Huckstep and Dr Tim Rowland,  
University of Cambridge

### A FRAMEWORK FOR TEACHING DEVELOPMENT: THE KNOWLEDGE QUARTET

This presentation draws on videotapes of mathematics lessons prepared and conducted by primary PGCE students towards the end of their initial training. The aim was to locate ways in which their mathematics subject knowledge was evidenced in their teaching. A grounded approach to data analysis led to the identification of a knowledge 'quartet' through which subject knowledge could be observed in practice. We term the four dimensions of the quartet: foundation, transformation, connection and contingency. We shall describe these units, analyse one of the videotaped lessons, and explain how this research is being applied to trainees' teaching development in the PGCE course.

Monday 14th June 2004, 5.30 p.m., Room 205, Mary Allan Building, Homerton College

**Dr Heather Mendick, University of Lancaster**

### A MATHEMATICIAN GOES TO THE MOVIES

In recent years there have been several films featuring a mathematician as the central character. In this session I will focus on four of these: A Beautiful Mind, Enigma, Pi and Good Will Hunting. I will show clips, offer my own analysis of the films, and make connections to the teaching and learning of mathematics. In particular, I will argue that the films create gendered pictures of what being a mathematician and doing mathematics mean, and that these pictures have powerful impacts on the ways in which learners' construct their relationship with the subject.

Tea and coffee will be available before each meeting. All are very welcome.

For directions to Homerton College and any other information, contact Tim Rowland at [tr202@cam.ac.uk](mailto:tr202@cam.ac.uk)