

FACULTY OF EDUCATION, UNIVERSITY OF CAMBRIDGE
EASTER TERM 2006

CAMBRIDGE COLLOQUIA IN MATHEMATICS EDUCATION

Monday 15th May 2006 at 5.30 p.m., Room 205, Mary Allan Building, Homerton College

Liz Pumfrey, University of Cambridge

PROVOKING MATHEMATICAL THINKING IN LOW-ATTAINING CHILDREN

This study focused on a particular source of enrichment resources - mathematical problems taken from the NRIC website - and investigated the ways they could provoke mathematical thinking in a pair of low-attaining Year 5 children. The research comprised observation of the pupils, interviews with them and video-stimulated interview with their teacher. Qualitative analysis revealed that the pair readily engaged in activities that characterised mathematical thinking. Exploration of the ways in which this thinking was provoked led to quantitative analysis, examining the occurrences of different strands constituting mathematical thinking. This revealed features of the problems that lent themselves to the encouragement of mathematical thinking in these children.

Monday 12th June 2006, 5.30 p.m., Room 205, Mary Allan Building, Homerton College

Dr Anne Cockburn and Dr Paola Iannone, University of East Anglia

CONCEPTUAL MATHEMATICAL THINKING FOR FIVE-YEAR-OLD PUPILS?

In this talk we will draw on a recently completed ESRC project which investigated how teachers can foster conceptual mathematical thinking in 5-6 year-olds. Here conceptual mathematical thinking is defined as instances where pupils show some of the mathematical skills associated with successful mathematical thinking, as first described by Krutetskii (1976). The data collection of the study consisted of five comparative case studies of teachers and their classrooms. We will investigate what can be understood as conceptual mathematical thinking at this very early age, and how some well-defined sociomathematical norms observed in the classroom help foster such thinking.

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