

FACULTY OF EDUCATION, UNIVERSITY OF CAMBRIDGE

EASTER TERM 2010

CAMBRIDGE COLLOQUIA IN MATHEMATICS EDUCATION

Monday 17th May 2010 at 5.00 p.m., Room 207, Mary Allan Building, Hills Road

Professor Kenneth Ruthven, University of Cambridge

USING INTERNATIONAL STUDY SERIES AND META-ANALYTIC RESEARCH SYNTHESSES TO SCOPE PEDAGOGICAL DEVELOPMENT AIMED AT IMPROVING STUDENT ATTITUDE AND ACHIEVEMENT IN SCHOOL MATHEMATICS AND SCIENCE

This talk will examine how two bodies of international research can inform the scoping of research-based pedagogical development; development aimed at improving student attitude and achievement in school science and mathematics, with a view to increasing the participation of young people in more advanced study in STEM fields. First, findings from the TIMSS international study series will be used to illuminate trends in the performance of the English educational system within a framework of cross-system and between-subject comparison. Second, the findings of recent meta-analytic research syntheses will be triangulated, to identify promising lines of pedagogical development, which will then be related to the English situation.

TUESDAY 8th June 2010 at 5.00 p.m., Room 207, Mary Allan Building, Hills Road

Carol Murphy, University of Exeter

DIALOGUE AND COGNITIVE SHIFT IN CHILDREN'S ARITHMETIC: WHAT IS THE EVIDENCE?

The presentation will share ongoing analysis of video and transcript data collected as part of the 'Talking Counts' project funded by the Esmée Fairbairn Foundation at the University of Exeter. In the project we taught Exploratory Talk to young, lower attaining children (aged 6 to 7) and observed the relationship between their talk together and their learning in arithmetic around collaborative open-ended tasks. We identified key incidents when the talk seemed to open an opportunity for learning within a mathematical activity. These incidents are interrogated qualitatively to investigate both the quality of the dialogue as well as the learning in mathematics. This ongoing work will be presented with an opportunity to review the methods of analysis and to share approaches.

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

For directions to the Mary Allan Building and any other information, contact Tim Rowland at tr202@cam.ac.uk