

Nuffield Seminar Series on Mathematical Knowledge in Teaching

Seminar 3: 27th September 2007. *Auditing and assessing mathematical knowledge for teaching*

Each plenary speaker will provide a paper to be read by participants in advance of the seminar, which:

- (1) Describes some form of innovative approach to auditing and assessing forms of mathematical knowledge for teaching, explaining guiding principles, underlying rationale and supporting analysis.
- (2) Provides some illustration and evaluation of such an approach in action.
- (3) Explains how and why such an approach represents a significant advance on, or alternative to, existing ones.
- (4) Identifies significant issues which might arise in developing further and wider use of such an approach, and ways in which these issues might be addressed.

At the seminar, each plenary speaker will give a short presentation summarising the key points of their paper, and then lead initial discussion of it. In addition to critically appraising and developing the approaches presented, the focus of conference discussions will be on:

- (i) Exploring commonalities and contrasts, complementarities and conflicts between the approaches, and their guiding principles, underlying rationales and supporting analyses.
- (ii) Exploring any significant limitations or oversights of these approaches.
- (iii) Exploring any significant limitations or oversights of current policy and practice as regards the auditing and assessment of mathematical knowledge for teaching in the light of these innovative approaches.

The timetable for the seminar will be as follows:

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| 11.30-12.00 | Arrival |
| 12.00-12.15 | Introduction to the seminar: Kenneth Ruthven, University of Cambridge |
| 12.15-13.00 | Plenary presentation and discussion led by Julian Williams, University of Manchester: 'Audit and evaluation of pedagogy: towards a sociocultural perspective.' |
| 13.00-13.45 | Lunch. |
| 13.45-14.30 | Plenary presentation and discussion led by Tim Rowland, University of Cambridge: 'Auditing the mathematics subject matter knowledge of elementary school teachers.' |
| 14.30-15.15 | Plenary presentation and discussion led by Julie Ryan, Manchester Metropolitan University: 'Mathsmaps for diagnostic assessment with pre-service teachers'. |
| 15.00-15.30 | Plenary review and discussion of all three papers, led by Peter Huckstep, University of Cambridge |
| 15.30-16.00 | Tea |
| 16.00-17.00 | Group discussions |
| 17.00-17.45 | Plenary discussion chaired by Kenneth Ruthven |
| 17.45-18.00 | Future plans and close |