

MATHSALIVE – DEVELOPING A TECHNOLOGICALLY-RICH LEARNING ENVIRONMENT FOR SECONDARY MATHEMATICS

Rosalyn Hyde, The Mathematical Association, UK

Alison Clark-Jeavons, University College Chichester

In the UK, as part of an investment in an Information and Communications Technology (ICT) strategy for teaching and learning to support the National Curriculum (spending 350 million euros over the period 1999/2003), the MathsALIVE project was commissioned by the UK Department for Education and Skills (DfES) with the following aims:

- ◆ *To produce material for a year-long course suitable for students at Key Stage 3 (pupils aged 11-14) in mathematics using information and communications technology;*
- ◆ *To pilot the delivery of the materials, together with appropriate supporting services, to a number of teachers and learners during the school year 2000 – 2001.*

The project was based on a ‘mixed model’ of ICT use, using evidence from existing projects (BECTa, 1997, 1998, 1999; TTA, 1999). Classrooms were equipped with an interactive white board, a data projector (beamer), laptop, three additional computers, 15 graphical calculators, Viewscreen, a motion sensor and supporting software.

Evaluation findings include the following advantages for teaching and learning:

Multimedia materials	These enhanced learning with high visual impact, moving images and sound and allowed the use of a variety of techniques by teachers.
Motivation and engagement	Overwhelmingly positive comments were reported to the evaluation teams about the improved levels of motivation and engagement of the pupils with their learning.
Out of hours learning	Online access to the course materials gave pupils more control of their learning and enabled them to extend their learning outside of the school day.
Written work	Pupils in the mathematics pilot did less written work than their peers using other materials because they concentrated instead on discussion, games and mental techniques. Pupils in the project were reported to be more aware of their own learning.

Other evaluation findings included pupils being generally more enthusiastic about mathematics, classroom discussion being supported and encouraged, strong positive attitudes from pupils, pupils often being able to identify where particular ICT resources had supported their learning, and suggestions of a trend towards higher attainment.

References

- BECTa, 1997, *A pupils entitlement in Mathematics*. BECTa, Coventry.
 BECTa, 1998, *Data-capture and modelling in mathematics and science*. BECTa, Coventry.
 BECTa, 1999, *Curriculum Software Initiative – mathematics*. BECTa, Coventry. Teacher Teacher Training Agency. 1999, *Ways forward with ICT*. TTA, London.