

Mathematics for Economics: enhancing Teaching and Learning (METAL)

Since 1990 the teaching of mathematics to economics students has become increasingly challenging for universities across the sector, regardless of entry qualifications. Many Economics (or economics-related) programmes now have a mixed intake of students, many of whom lack practice in the use of mathematical concepts. In addition, the widening participation initiative has led to even greater diversity of student backgrounds, particularly in relation to mathematical skills. Consequently students often do not have the mathematical ability required to successfully complete their first year of study.

The issue of heterogeneous mathematical skills, coupled with an increasing focus on interactive, student-focussed and inclusive learning will be addressed by the METAL project, a HEFCE funded initiative that seeks to enhance the teaching and learning experience of students studying mathematics as part of an economics degree programme.

The project outcomes will comprise an online question bank of mathematics teaching and assessment materials specifically applied to concepts in economics, 30 interactive video units to relate mathematical concepts to the field of economics and 10 teaching and learning guides that will present innovative and interactive approaches to teaching mathematical concepts to economics students. Topical flow charts will identify different ways to present concepts and to incorporate the question bank and video clips into teaching activities. An interactive website will also be developed to present the teaching and learning resources, to facilitate distance learning and to foster students' autonomy and ownership of the learning process.

The project is led by Dr. Rebecca Taylor from Nottingham Trent University in partnership with the University of Portsmouth and Brunel University.

This conference session will involve an explanation of the project resources and the scope for adaptation of the developed materials to different subject areas and different higher education systems. This will be followed by specific examples from the online question bank and the video materials, and a discussion about how these materials have been incorporated into the teaching and learning guides in order to promote more student-led, interactive and inclusive learning.