



**RESEARCH SEMINAR SERIES – 2012/2013
GRADUATE SCHOOL OF EDUCATION
COLLEGE OF SOCIAL SCIENCES AND INTERNATIONAL STUDIES**

**Professor Steve Higgins
(Durham University)**

Steven Higgins is Professor of Education at Durham University. His earlier experience has included a number of years teaching in primary schools in the North East of England, which was where his interest in students' learning developed. He also worked at Newcastle University in initial teacher education and primary mathematics and in developing approaches to support learners' thinking and reasoning, particularly with technology. He has a number of areas of interest in educational research particularly in terms of the use of research evidence in education and the application of findings from meta-analysis in particular, as well as extensive research into the effective use of digital technologies for learning and the impact that these technologies have on classroom interaction and pupils' attainment.

Seminar Title: Exploring the potential of a multi-touch classroom to develop adaptive expertise in primary mathematics

Abstract

SynergyNet, one of the final round of TLRP-TEL projects, is investigating the potential of large multi-touch surfaces in a lab classroom environment. One of the recent investigations has been into the potential of the classroom for within and between group collaborative learning, facilitated by the digital environment. NumberNet is an example of some exploratory software which aims to support pupils in becoming more flexible and creative in their solutions to an arithmetical challenge. Steve Higgins will present an overview of the SynergyNet project and a summary of the NumberNet investigation which aimed to support the development of adaptive expertise with Year 6 pupils. Results from an experimental study of 86 students (44 using NumberNet, 42 using a paper-based traditional activity) indicated that all students increased in fluency after completing these activities, while students who used NumberNet also increased in flexibility and adaptivity.