

## **CETL-MSOR Conference 2015**

### **Harry Tolley & Helen Mackenzie: Senior management perspectives on mathematics and statistics support in the HE sector in England.**

In 2013 HEFCE funded sigma to implement a three-year programme aimed at further embedding mathematics and statistics support. A key component of that work was a commitment to investigating existing and future sector needs in relation to the provision of such support. The aim of the study undertaken by the authors therefore, was to identify both the support universities might welcome from the Funding Council, and how the sigma Network could best assist HEI senior management by ensuring that future provision meets institutional needs in ways that are fit for purpose and sustainable. Interviews were conducted with senior representatives (typically PVCs) of a sample of 23 universities drawn from across all of the mission groups. Within that sample, average entry tariffs were evenly distributed across all three of levels of 'tariff providers' identified by UCAS. The following issues were discussed: the challenges faced by students in relation to mathematics and statistics; how those challenges were being addressed; the degree to which learning support was embedded and visible; plans and intentions with regard to the provision of support; how institutional priorities were determined; and, the external support that the universities think they might need. The resultant data were subjected to a process known as 'thematic induction' - insights derived from an interview with the Director of OFFA being used to inform the analysis. In keeping with the ethical framework within which the study was conducted individuals and institutions were not named in the research report. Drawing upon the relevant literature, the research was set in the context of: the rapid changes occurring in the HE system; and, post-16 education with regard to the small number of students who continue to study mathematics prior to entering HE. All of the HEIs reported that they have students who are challenged by mathematics and statistics, and whilst those challenges varied in detail between universities, they can be related to the students' transitions into and within HE, and to employment. Those challenges are not confined to mathematics or STEM disciplines – they extend to subjects that use quantitative methods, and to those that make little or no use of mathematics or statistics (but whose graduates face numeracy tests when seeking to enter employment). It was widely recognised that that unless appropriate forms of learning support are provided, it is inevitable that those challenges will have an adverse impact on students' experiences, and ultimately on their satisfaction, retention, achievement and employability. Support for mathematics and statistics was found to range from that which is embedded into the design and delivery of selected modules in particular programmes through to comprehensive and highly visible systems of university-wide support (including MSSCs) that are accessible to all students. Decisions concerning the latter are made at senior management level and linked to wider considerations that include: outreach; access; and, student recruitment, retention, achievement and employability. Positive suggestions were forthcoming about the support HEIs would welcome in order to further develop learning support for mathematics and statistics, and it was recognised that sigma has the intellectual capital needed to fulfill a leadership role in the ongoing development and dissemination of effective practice.