



sigma briefing day

Mathematics Education Centre

Loughborough University

17th January 2014

Welcome and Introductions

An introduction to **sigma**

- What is **sigma** ?
- The current HEFCE funded project
- What we are trying to achieve

sigma – just a bit of history

- **sigma** was born in 2005 as a HEFCE-funded Centre for Excellence in Teaching and Learning (a CETL).
- It began as a collaborative venture between Loughborough and Coventry Universities; it established the principle of offering university-wide support in maths & stats, and developed a vast amount of resources which are freely available.
- Between 2005 and 2010 it helped establish new centres in Bath, Leeds and Sheffield – these are very active centres today.
- Held annual conferences CETL MSOR since 2006.

sigma – just a bit more history

- In 2010 **sigma** was provided with continuation funding through the national HE STEM Programme to widen its reach (2010-2012)
- Helped to establish new centres in York, London Metropolitan, Lincoln, UCLAN, Kent, Anglia Ruskin, Birmingham, Brighton, Cardiff, Keele, Liverpool, Liverpool John Moores, Warwick Wolverhampton
- Established regional activities through six “hubs” covering England and Wales. Note Ireland and Scotland have their own networks with which we maintain close contact

sigma – and now

- Last summer, **sigma** was awarded further funding from HEFCE to continue its work until July 2016.
- This should enable the development of further centres and activities, further resources, more conferences.

Why ? – the evidence base

- ***We estimate that of those entering HE in any year, some 330,000 would benefit from recent experience of studying some mathematics (including statistics) at a level beyond GCSE, but fewer than 125,000 have done so.***
ACME report Mathematical Needs: Mathematics in the workplace and Higher Education (2011).
- ***The UK is weak in quantitative skills, in particular but not exclusively in the social sciences and humanities... another reason for the poor skills of undergraduates is the dearth of academic staff able to teach quantitative methods.***
British Academy position statement Society Counts: Quantitative Skills in the Social Sciences and Humanities (2012).

There is still a need to provide students entering university with additional support if they are to thrive and succeed. **sigma** has championed this agenda.

Negotiations with HEFCE

- Prolonged negotiations took place with HEFCE and included an intervention by the Universities Minister David Willetts who is extremely interested in this work.

David Willetts has announced funding to address a “serious shortage of graduates with sufficient numeracy skills”.



The sigma team

- Directors: Tony Croft (Loughborough), Duncan Lawson (Newman), Trevor Hawkes (Coventry)
- Project Manager: Moira Petrie (Loughborough and Coventry)
- Sigma network Chair: David Bowers, University Campus Suffolk
- Michael Grove (Birmingham)
- Websites, Communications, Projects: Janette Matthews (Loughborough)
- all supported by the sigma hub coordinators

The vision

- that anyone who works in mathematics support is aware of and accesses the **sigma** network, and that this remains a vibrant, supportive, resourced community.
- that any member of academic or support staff in any English university coming across students who have mathematical shortcomings know that resources and support are available.
- that university leaders, policy makers and regulators (incl. bodies such as OFFA) are aware of the challenges and the responses that have been put in place via the **sigma** network
- that any student who finds themselves in need of further support can access self-help through sites such as www.mathcentre.ac.uk, www.statstutor.ac.uk.

The current round of funding

- Up to £15k per institution for five institutions in 2013/14 (£10,000 + £5,000)
- There **MUST** be senior management commitment in the form of a letter of endorsement to the ethos and matched funding.

The current round of funding

- For the purposes of this funding call, mathematics and/or statistics support refers to activities which are provided to support and enhance students' learning of mathematics and/or statistics (in one or more disciplines, at any level of higher education) and which are provided separately and in addition to traditional lectures, tutorials, examples classes, personal tutorial sessions etc.
- We would normally expect this would involve substantial opportunities for face-to-face contact between students and centre staff.

The current round of funding

- There is an expectation that successful bidders will play a full role in the **sigma** community – (contributing to electronic newsletter, conference presentation, attend at least some workshops, perhaps offer to run an event)
- At the end of the day this is about two things: supporting students better, and strengthening the network of those staff who support students

What do I need to learn today ? (50min)

- In a small group, discuss your own needs/
ideas/ what you need to know.
(25 min)
- Be willing to share these questions/
contribute to a discussion of the answers.
(25 min)

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Gathering the evidence to make a local case

- The national picture regarding need for maths support
- The national picture regarding prevalence
- The research information about the value of maths support
- Your local issues – what evidence is there ? who will support your case ?
- Cultivating allies

The rationale for continued support

- Widespread and continuing problem with mathematics, statistics and general numeracy
- Increasing quantitative content in many courses
- Employability
- Sector stratification

Nurturing local support

- Course leaders
- Widening participation and outreach people
- Counselling
- Additional needs
- Study skills, learning support, library
- Students
- Careers services