



Mathematics Support – in the UK and beyond

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Overview

- What is maths support?
- Why is maths support needed?
- How is maths support provided?
- Developments in maths support
- Resources

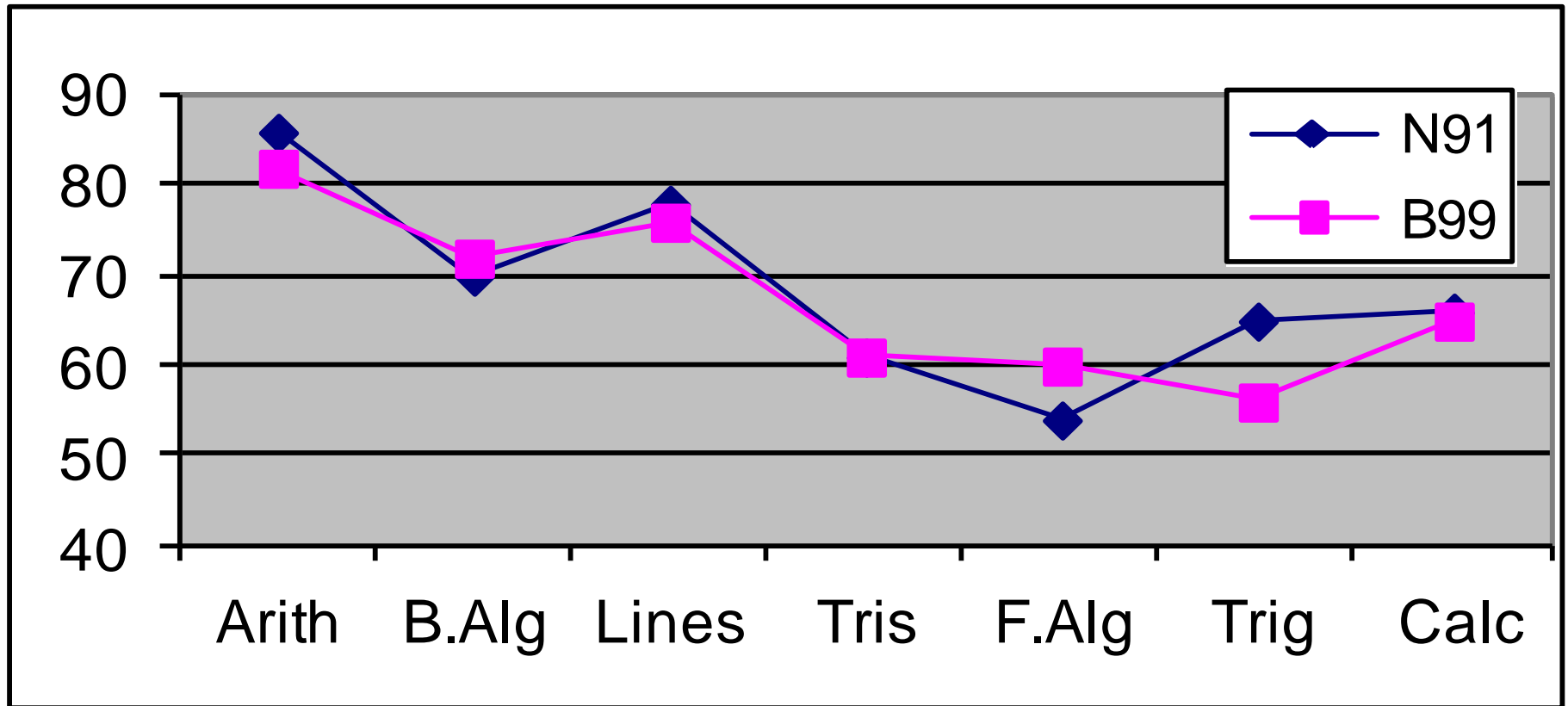
What is maths support?

"...a facility offered to students (not necessarily of mathematics) which is in addition to their regular programme of teaching, lectures, tutorials, seminars, problems classes, personal tutorials, etc." (Lawson, Croft & Halpin, 2003)

Why is maths support needed?

- Decline in mathematical skills of students with same entry qualification
- Greater diversity in the undergraduate cohort
- Changes in school mathematics curriculum

Why is maths support needed?



Many students require some additional academic support, especially in the mathematical skills required in science, mathematics, engineering and technology.

National Audit Office
report 2007

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National Audit Office

Staying the course: The retention
of students in higher education

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL | HC 615 Session 2006–2007 | 26 July 2007



HOUSE OF LORDS

Select Committee on Science and Technology

2nd Report of Session 2012–13

Higher Education in Science, Technology, Engineering and Mathematics (STEM) subjects

Report

Ordered to be printed 17 July 2012 and published 24 July 2012

Published by the Authority of the House of Lords

London : The Stationery Office Limited
£price

HL Paper 37

24 July 2012

The weight of evidence that we have received led us to conclude that post-16 maths and the interface between school and HE study warranted a closer look.

The gap between the mathematical skills of students when they enter HE and those needed for STEM degrees is a problem which has become acute.



How is maths support provided?



Several models – most are variants of the “drop-in” centre – one to one work with students fundamental to this model

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Maths support at Coventry University

1991 Funding from BP to set up BP Maths Centre

2005 Designated by HEFCE as Centre for Excellence in Teaching and Learning

2009 Commissioned by National HE STEM Programme to establish national network



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Original Principles

- Early identification of problems
- On-going support

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Services Provided

- Diagnostic testing
- Drop-in support
- Outreach desks
- Stats Advisory Service



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More Services

- Statistics workshops for PGR and staff
- Numerical reasoning workshops
- Focused workshops
- Specialist dyslexia / dyscalculia support



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Student Involvement

- Receptionists
- Proctors
- Ambassadors
- Publicity design
- Summer interns




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What students think

Service	2011/12	2010/11
Main drop-in	6983	6422
Stats drop-in	253	130
Stats appointment	117	127
Stats Phone/virtual appointments	158	0

Student opinion

A photograph of four students standing in a classroom. From left to right: a young woman with blonde hair wearing a purple top, a young man with dark hair and a beard wearing a striped shirt, a young man with red hair wearing a dark sweater over a striped shirt, and a young man with dark hair wearing a white t-shirt with 'GREAT' printed on it and a blue cardigan. They are all smiling or looking towards the camera. The background shows classroom desks, chairs, and a whiteboard.

Over my three years at Coventry University I spent a lot of time in the Maths Support Centre and I do believe that without it I would not have attained the qualification I did.

The Centre's service is nothing short of excellent. The friendly, welcoming staff are always available to support your studies where no query, question or problem is ever too much.

Maths support at CU

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A photograph of two men standing outdoors. The man on the left has long, wavy white hair, wears glasses, a striped scarf, and a dark jacket. The man on the right has short grey hair, a beard, and wears a dark suit, a light blue shirt, and a red patterned tie. They are both smiling slightly. The background is a blurred outdoor setting with greenery.

sigma nationally

sigma was originally a collaboration between
Coventry and Loughborough Universities
sigma now has a national role

Developments in maths support

- Over last 3 years **sigma** has:
 - helped established centres in 22 universities
 - created a network of six regional hubs covering England and Wales
 - delivered training for maths support tutors
 - awarded annual prizes
 - organised an annual conference (CETL-MSOR)
 - developed and shared maths support resources

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More Developments

- Supported the creation of maths support networks in Scotland and Ireland
- Helped establish 1st maths support centres in Switzerland, Sweden and Oman
- Diversified student “customer” base beyond engineering and physical sciences to social sciences, business and health

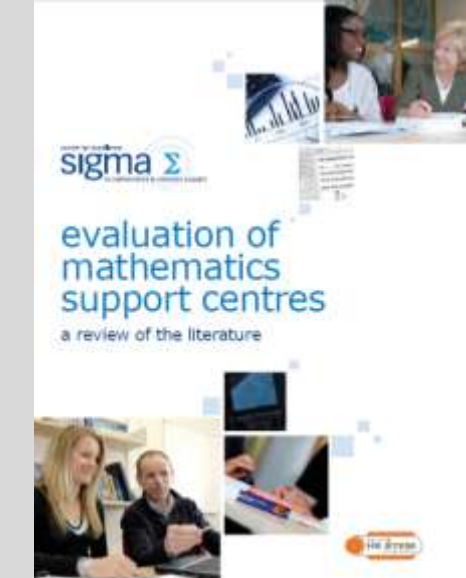
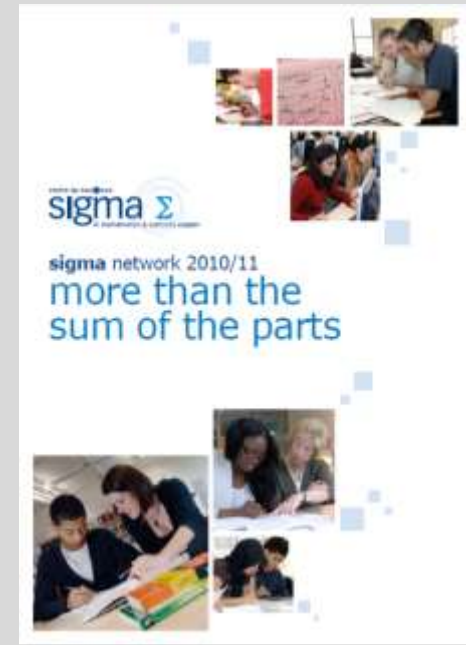
Resources

- **mathcentre** website www.mathcentre.ac.uk contains thousands of resources for students and staff
- **sigma** publications provide guidance for staff delivering mathematics support

sigma publications

- more than the sum of the parts
- tutoring in a mathematics support centre
- gathering student feedback on maths and stats support
- and the winner is ... mathematics support
- how to set up a maths and stats support provision
- evaluation of mathematics support centres
- mathematics learning support in HE: the extent of provision

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More information

- The maths support community is highly collaborative – please ask for help
- Please contact:
 - Duncan Lawson
 - d.lawson@coventry.ac.uk