



Meeting the mathematics needs of pharmacy students

The **sigma** North West and North Wales event held at Liverpool John Moores University on 19 November attracted 29 participants from 16 institutions, with a good representation of both maths support practitioners and pharmacy teachers.

Tony Croft opened proceedings with a presentation on the issues with numerical and mathematical reasoning which plague all HEIs and all disciplines. He also outlined the contribution that maths support centres make to overcoming them.

Next Emma Bolton, Educational Development Officer of the British Pharmaceutical Students' Association, presented the results of a social media poll of pre-registration pharmacists (those in their first year of practice after graduation) asking about their experiences with mathematics in their undergraduate courses. She also asked about their preparedness for the calculation part of the qualifying examination which all graduate pharmacists have to pass, with quite high marks, in order to become fully registered pharmacists.

The final invited presentation in the morning was given by Lisa Smith, Question Writing Coordinator from General Pharmaceutical Council who manages the setting, marking and moderation of this calculation part of the qualifying examination, nicely complementing Emma's presentation.

In afternoon there were contributed presentations on an interesting range of approaches to creating capability with and confidence about the calculations which pharmacy students encounter.

Here are links to these presentations:

[Enhancing the mathematical education of undergraduates: the role of sigma and the mathematics support community](#) Professor Tony Croft, sigma Director, Mathematics Education Centre, Loughborough University

[Pharmacy students' perspective](#)

Emma Bolton MPharm ARPharmS, British Pharmaceutical Students' Association Educational Development Officer

[Pharmacy regulator's insight](#)

Lisa Smith, Question Writing Coordinator, General Pharmaceutical Council

[A contextualised diagnostic numeracy test: What? When? Why? and How?](#)

Sion Coulman, Senior Lecturer, Cardiff School of Pharmacy and Pharmaceutical Sciences

[The feasibility and impact of e-learning in pharmaceutical calculation teaching](#) Reem Kayyali, Associate Professor, Kingston University

[Counting the problems with Maths: A Pharmacy Diagnosis](#)

Bridgeen Callan, Course Director for MSci Pharmaceutical Biosciences, School of Pharmacy and Pharmaceutical Sciences, University of Ulster

[Intern experiences](#)

Abi Francis, MPharm undergraduate student at Liverpool John Moores University

[Using PASS to pass](#)

Mary Rhodes, Lecturer, Manchester Pharmacy School

I am extremely grateful to my colleague Bob Morris from the School of Pharmacy at LJMU who did all the organisation of speakers and participants from the pharmacy side of the event. I heartily endorse his comment that "I personally took something of value from each session and the comments arising from them. I know Leslie learned a great deal about pharmacy mathematics that will help him and his team support students here at Liverpool." I am sure that the other maths support staff who came will also have gained a great deal from the day.

Leslie Fletcher

Liverpool John Moores University