

Using Technology to enhance Pedagogy in Statistics for A Level Maths

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Maths Hub Network Collaborative Projects 2022/23

Outline

Primary focus for 2022/23:

Developing Pedagogy in the use of Technology for Teaching Statistics in A Level Maths

This project provides national support for the effective development of pedagogy in the use of technology for teaching statistics in A level Mathematics, to enhance the quality of teaching and the conceptual understanding of students, and the development of participants as leaders of A level teaching professional development in their own school or college. It aims to develop and sustain local communities of practice involving collaboration between teachers in developing pedagogy in their teaching of A level Maths.

Details

What is involved?

The content of the Work Group sessions will be influenced by the needs of the participants but may include the following:

- Key themes in statistics in A Level Maths: Randomness, Sampling, Distributions, Hypothesis Testing
- How the Large Data Set and other real datasets can be used to enhance students' understanding
- Designing and delivering inspiring and effective statistics lessons
- The effective use of technology such as Desmos will be embedded throughout the programme
- Evidence-based practice such as spaced practice and retrieval

What are the benefits?

Participants and their departments will:

- be better able to prepare lessons that meet the requirements of the A level (including the overarching themes and the use of technology)
- support colleagues in their own school/college in embedding themes from the Work Group
- be confident to teach aspects of the content

The wider context

There is a range of currently available maths teacher professional development around subject knowledge and pedagogy for new teachers of A level Maths via the AMSP, but no extended professional development for experienced teachers or leaders of A level Maths teaching around the overarching themes, technology or other aspects of pedagogy of the A level Maths specification. There is a strong focus on pedagogy through the overarching themes of the linear A level Maths specification, with changes to pedagogy in statistics teaching, assessment and expectations in the use of technology.

Expectations of participants and their schools

Schools/colleges must be able to commit to the full academic year's programme. This involves a total of three days of face-to-face (or equivalent) support across the academic year, as well as classroom and school-based activity. Participants must also be supported by their school/college leadership to explore outcomes from the project with other colleagues in their department.

Workshop details

Workshops will take place on the following dates:

Date	Time	Location
Wed 9 Nov 2022	1230 – 1630	F2F, Exeter Maths School
Wed 30 Nov 2022	1430 – 1600	Online
Wed 18 Jan 2023	1430 – 1600	Online
Wed 8 Feb 2023	1430 – 1600	Online
Wed 15 Mar 2023	1430 – 1600	Online
Wed 29 Mar 2023	1230 – 1630	F2F, Exeter Maths School

Participation is free for teachers from state-funded schools. Cover expenses will need to be funded by each school, as necessary.

Link to expression of interest form: [here](#).

For further information, contact the Work Group Lead School via: events@exeterms.ac.uk