sigma network for excellence in mathematics and statistics support

NEWSLETTER

Issue 31: Autumn 2025

INTRODUCTION

Editor's Introduction

Susan Pawley, Senior Lecturer in Maths & Stats| The Open University

susan.pawley@open.ac.uk

Hello and welcome to the Autumn 2025 **sigma** Network Newsletter. This is my first issue as editor, so I'd like to start by saying a big thankyou to Lois, who's done a fantastic job over the last few years, I can't promise the stunning photographs she would always manage to include, but I'll do my best to fill her shoes.

Thank you to everyone who has contributed articles to this issue, I know how busy this time of year can be, and I really appreciate you taking the time to share your work. As always, the newsletter features a wide range of topics from colleagues across the UK and beyond, so I hope there's something here for everyone. A special thankyou to Ewan Russell and others at University of Liverpool, who not only organised this year's CETL-MSOR conference so brilliantly, but also kindly wrote a report for our newsletter.

A quick intro from me, formally, I'm Susan Pawley, but everyone calls me Sue. I've been working for The Open University (OU) for the past 20 years. As a distance learning organisation, the OU works a bit differently; with the academic material being delivered remotely, through web-based platforms and printed books. Rather than having separate maths support, everything is integrated into the modules. Associate Lecturers support students through individual contact and group tutorials, helping to bring the material to life and marking continuous assessment. For my first 10 years at the OU, I worked as an Associate Lecturer, and now as a Senior Lecturer (Staff Tutor) I divide my time between organising that support and writing the academic content for our modules.

Wearing one of my other hats, as deputy chair (operations) of the **sigma** Network steering group can I remind all **sigma** Network members to save the date of our AGM, 5th November, 10am and attend if possible.

I hope you enjoy reading this issue and look forward to catching up with you at a coffee morning or workshop soon.

Best Wishes

Sue

INTRODUCTION

Chair's Note

Dr Mark Hodds, sigma Network Chairman and Assistant Professor (Research and Teaching) in Mathematics and Statistics Support |Coventry University

chair@sigma.network.ac.uk

Dear Colleagues,

Welcome to the Autumn 2025 edition of the **sigma** Network Newsletter. It has been a busy time since our last newsletter which is reflected in the number of great articles we have – it truly is a bumper edition. Since our last newsletter we have

said a fond farewell to Lois Rollings who did a fantastic job in being our editor, but she has provided a wonderful handover to our new editor Sue Pawley. We all thank Lois for everything she did for us, not just for the newsletter but for the network as a whole.

We have also had the annual CETL-MSOR conference which was held in Liverpool, and my thanks go once again to Ewan and the team there for putting on a fantastic couple of days. I was really pleased to see so many new faces at the conference, alongside the old. Indeed, if you are relatively new to the **sigma**-Network I would like to welcome you and encourage you to consider writing a short piece to introduce yourself and tell us what you do, including a picture if you can. This newsletter is an ideal place to share that with everyone.

At the conference, I was also delighted to once again present our annual awards for Excellence in Mathematics and Statistics support. My thanks to everyone who was involved and our award winners for this year were: Chloe Ireland, Coventry University; Poppy Jeffries, University of Sheffield; Luke Middleton, University of Brighton; and Luis Sanchez Andalco, Coventry University. The Lawson-Croft Award for Outstanding Achievement in Mathematics and Statistics Support went to Don Shearman, University of New South Wales Australia – our first international winner. You may also have seen the brilliant news that our former Chairman, Alun Owen, has won the 2025 IMA John Blake University Teaching Medal, recognising his work in making the learning of statistics more inclusive and accessible to students in higher education at Coventry University, across the UK and internationally. Congratulations to all our award winners across the network!

The forthcoming academic year sees us planning to host lots of exciting and interesting events for you to attend but we would love to see more people offering to host or run an event. Please do get in touch with either myself, Evi, or any of the Steering Group to get involved. Shortly we will be providing information about our AGM which will be held on the 5th November. Please try and attend if you can. Going forward, we will looking to fill some vacancies on the Steering Group, so again if you are interested in this, please do get in contact with myself, or have a look at the details on the website here: https://www.sigma-network.ac.uk/about/the-sigma-network-hubs/.

Finally, did you spot what I did in the last newsletter? My article "How Coventry University's Maths and Stats Support Centre is Helping Students in 2025: A Holistic Approach to Learning Support" was written purely using ChatGPT which hopefully highlights an issue we are all facing in academia. We are going to launch a new Special Interest Group for AI in Mathematics and Statistics support this academic year so if you are interested in being part of it or even leading it please do let me know.

For those in the UK, I wish you all a successful start the new academic year and for everyone else I wish you continued success.

With best wishes,

Mark Hodds
Chair of the **sigma** Network Steering Group

EVENTS

sigma Events

Evi Papadaki, Lecturer in Mathematics Education & Events Secretary for sigma | UCL

p.papadaki@ucl.ac.uk

Looking for Volunteers

Without presenters and hosts, we could not be the thriving supportive Network that you make it. Support is provided by the **sigma** Network to organise things. All we ask is for you to be the host for the day and chair the event to ensure it runs to plan. Hosting, of course, means you are facilitating the developing of others'

maths and stats support practice so could also be used as evidence to support applications for Fellowship/Senior Fellowship of Advanced HE. If you would like to talk to me about possible ideas for presenting or hosting (or both 😊) and are not sure, then do get in touch (p.papadaki@ucl.ac.uk) for more information.

I look forward to seeing you at a future event.

Events

This is a list of events organised by the **sigma** Network this academic year.

Date	Event Details	Type	Organisers & Host Institution
Wed 3rd Sept 2025	Tutor Training (In-person)	Training	Tony Mann University of Greenwich
Thu 11th Sept 2025, 8:30 – 10:00	Coffee Morning Impact and Evaluation SIG (Online)	Meeting	Allison Loddick and Sue Pawley University of Northampton & Open University
Wed 17th Sept 2025	Enhancing Inclusion for Neurodivergent Students in Mathematics and Statistics (In-person)	Workshop	Yamuna Dass & Emma Cliffe Coventry University &University of Bath (LMS funded)
Thu 23rd Oct 2025, 8:30 – 10:00	Introduction to Maths and Stats Support (for people new to the network) (Online)	Meeting/Workshop	Mark Hodds Coventry University
Wed 5th Nov 2025, 10:00 – 12:00	AGM (members only)	Meeting	Emma Cliffe &Ed Southwood University of Bath
Thu 20th Nov 2025, 8:30 – 10:00	Coffee Morning Something that works, something that doesn't (Online)	Meeting	Pete Hart University of Sheffield
December 2025 (TBC)	Stats SIG – Stats Resources Workbook (Hybrid)	Meeting	Gareth Woods, Ellen Marshall & Alun Owen Aston University
January 2026 (TBC)	Coffee Morning - TBC	Meeting	**Open for Volunteers!**
February 2026 (TBC)	Doing research in Maths and Stats Support (Hybrid)	Workshop	Mark Hodds Coventry University
March 2026 (TBC)	Coffee Morning - Reading Group	Meeting	**Open for Volunteers!**
April 2026	**Open for Volunteers!**		
May 2026	**Open for Volunteers!**		
June 2026	**Open for Volunteers!**		
July 2026 (TBC)	**What's new in maths support?!** A series of short presentations and discussions on what you've tried this year (Online)	Meeting	Sue Pawley (The Open University)!

Save the date!! Burwalls 2026

Dan Green, Senior Teaching Fellow| Aston University

d.green3@aston.ac.uk

Annual Conference for Teachers of Statistics in the Health and Life Sciences

Aston University (Campus), 23rd – 25th June 2026

Overview: Our annual conference provides an excellent opportunity to share ideas with colleagues, discover the latest developments in other statistics groups, and form lasting connections and friendships within the field.

The Burwalls conference is a relaxed event aimed at motivating and supporting educators in statistics and evidence-based disciplines, including medicine, dentistry, nursing, veterinary science, and health. It is tailored for those teaching in Higher Education, the NHS, or similar organisations, offering valuable tools and insights to enhance their teaching practices.

https://sites.google.com/view/burwalls/events/burwalls-2026

Aston University
BIRMINGHAM UK

The Second Four Continents Conference on Diagnostic Testing and Support in Tertiary Mathematics

Don Shearman, Lecturer| UNSW

d.shearman@unsw.edu.au

We are pleased to announce the second *Four Continents Workshop on Diagnostic Testing and Support in Tertiary Mathematics*, which will take place at the University of Cape Town on February 10, 2026.

This international event is organized by:

- Alison Reddy (University of Illinois, North America)
- Anita Campbell (University of Cape Town, Africa)
- Anthony Cronin (University College Dublin, Europe)
- Don Shearman (University of New South Wales, Australia)

The workshop brings together (both in-person and virtually) educators, researchers, and practitioners from around the globe to explore the design, implementation, and impact of diagnostic testing in tertiary mathematics education, and its connection to mathematics and statistics support services.

Building on the success of the first Four Continents Workshop—also held in Cape Town in February 2025—we aim to expand the conversation with new ideas and collaborations. One exciting possibility under discussion will be the development of an international diagnostic assessment for first-year university students. Such a tool could support the creation of adaptive algorithms to assess students' current skill levels, provide targeted learning support, and offer benchmarking across institutions and countries.

Recordings from the 2025 workshop are available here:

Watch on YouTube

We look forward to welcoming you to Cape Town in 2026 for another engaging and meaningful event.

CETL-MSOR Conference 2025

Ewan Russell, Centre Lead of the Mathematics Centre for Enhancement in Education | University of Liverpool

Ewan.Russell@liverpool.ac.uk

The annual CETL-MSOR conference took place on 4th and 5th September 2025 at the University of Liverpool. The event was hosted by the Mathematics Centre for Enhancement in Education (MathsCEE). The conference themes covered the use of generative A.I. in mathematics teaching and assessment, initiatives to enhance the student community in mathematics, supporting students with statistics and data analysis, building student confidence with maths or stats, and initiatives to ease the transition of students either into or out of higher education.

The call for abstracts received an enthusiastic response, with 65 contributed sessions featuring in the final programme. The keynote speakers were Professor Louise Walker (Manchester), Professor Noel-Ann Bradshaw (Greenwich), and Dr Joe Kyle (Birmingham). Louise shared her experiences of leading various initiatives with students as partners, while Noel-Ann shared her personal career journey and reflected on the importance of mathematical skills in senior leadership positions. Joe wrapped up the conference in the way that only he can – providing reflections on his experience of the conference and giving us some nice "wee problems" to solve.

The conference dinner was held at the Museum of Liverpool, and this also featured the announcement of the winners of the 2025 Mathematics and Statistics Support Awards. Four prizes were awarded to colleagues for excellence in Mathematics and Statistics support, while Don Shearman (University of New South Wales) was announced as the recipient of the Lawson-Croft Award for Outstanding Achievement in Mathematics and Statistics Support.

We are grateful to everyone who made the journey to Liverpool to share their experiences, discuss ideas, and reconnect before the start of the new academic year. The CETL-MSOR Conference always provides a boost of energy in preparing for the new term, and we are delighted that we were able to host this important gathering this year.

Early Intervention: Using Maths Diagnostics to Identify and Support At-Risk Students

Pinar Ozbeser, Senior Teaching Fellow| Aston University

p.ozbeser@aston.ac.uk

Ellen Pope, Library Deputy Director and Head of Library and Learning Services| Aston University

e.l.pope@aston.ac.uk

In early September, we had the pleasure of attending the CETL-MSOR 2025 Conference at Liverpool University, a fantastic opportunity to reconnect with colleagues from across the sector and engage with the latest ideas in teaching and learning. The event was packed with engaging presentations, lively discussions, and plenty of chances to share best practice. It was wonderful to catch up with familiar faces, meet new ones, and reflect on the ways we can continue to strengthen our work in supporting students.

We were proud to contribute to the programme with our presentation, *"Early Intervention: Using Maths Diagnostics to Identify and Support At-Risk Students."* Our talk highlighted Aston's approach to ensuring students have the right academic support from the very beginning of their studies.

We shared findings from our diagnostic mathematics quiz, taken by all first-year students in the College of Engineering and Physical Sciences. The results showed a clear link between early diagnostic performance and later academic outcomes, confirming that students who score lower at the start are more likely to face difficulties in subsequent modules. Importantly, our analysis also revealed disparities by entry qualification and ethnicity, with some groups starting at a disadvantage.

Encouragingly, the data also showed that support interventions such as Peer Assisted Learning (PAL), one-to-one appointments, and targeted drop-ins play a crucial role in closing these gaps. In particular, students who engaged with PAL made significantly greater improvements than those who did not, demonstrating the positive impact of peer-led learning.

Looking ahead, we are exploring ways to use diagnostic data to provide more tailored, proactive support, ensuring that all students, regardless of background, can succeed at university.

The conference was an inspiring reminder of the value of sharing research and practice, and we returned with new insights and renewed energy for the year ahead.

Pinar and Ellen at the conference dinner

Symposium on Establishing and Sustaining Effective National Networks of Maths and Stats Support Providers

Duncan Lawson, sigma Director | Coventry University

mtx047@coventry.ac.uk

Mark Hodds, Assistant Professor | Coventry University

ab7634@coventry.ac.uk

The Symposium delegates

On 12-13 June, Coventry University hosted this a working symposium on *Establishing and Sustaining Effective National Networks of Mathematics and Statistics Support Providers.* The event was attended by delegates from MSS networks in Czechia, Germany, Ireland, Norway and Scotland as well as Mark Hodds and Duncan Lawson from the **sigma**-network.

After introductions and brief descriptions of the national networks that were represented, David Bowers, the first chair of the **sigma**-network gave a presentation on the development and early years of the **sigma-**network. Following this presentation, the Symposium switched into active mode. Working in national pairs, delegates drew up a list of the benefits of having a national network and carried out a SWOT analysis of their own network.

Each network gave a presentation under the heading of one highlight and two challenges facing their network at present. We then had a session where, in mixed national groups, we identified the absolute necessities, the very usefuls and the nice-to-haves for a national network. Finally, going back into national pairings, each network developed an action plan with one year and three year targets.

Each nation present was also set post-Symposium homework, to complete a template describing the development and current state-of-play in their national network. When these are completed Mark and Duncan will compile them, along with the outcomes of the various discussions sessions into a *Good Practice Guide for National Maths and Stats Support Networks.*

The delegates hard at work

We plan a series of bi-lateral on-line meetings in a year's time to check-in on the action plans and then to hold another Symposium (this time virtually) in two year's time, followed by more bi-lateral meetings to check on the three year targets.

We gratefully acknowledge the receipt of funding from Coventry University's ESRC Impact Acceleration Account in supporting this Symposium.

CPD workshops for Maths and Stats Support Practitioners in Germany and the Lemma Network

Mark Hodds, Assistant Professor | Coventry University

ab7634@coventry.ac.uk

Duncan Lawson, sigma Director | Coventry University

mtx047@coventry.ac.uk

Professor Duncan Lawson and Dr Mark Hodds leading the workshop on behalf of Coventry University and the **sigma** Network

On 28-29 August, TU Darmstadt in Germany hosted a two-day workshop for the Lemma Network, run by Coventry University and the **sigma**-Network with Mark Hodds and Duncan Lawson providing the training. The event was attended by delegates across Germany with a hybrid option to attend remotely also.

The first day of the workshop focused on becoming a mathematics and statistics support tutor. Session 1 aimed to develop understanding of the role of a support tutor, showing how it is different to everyday teaching and dealing with different scenarios. Some scenario videos were played alongside watching maths support in action to learn how to become an excellent support tutor. Session 2 focused on the online support setting, drawing upon the experiences we built during the pandemic and what is being done currently. Here, colleagues from the Maths Support Centre in Coventry kindly logged on and provided a live role-play for delegates to see how online support can be provided. Session 3 looked at helping maths support tutors become stats support tutors. The session drew upon personal experiences of going through this process, introducing basic statistical methods, and how to spot what method a student might need. A practical guide on how to determine which statistical method should be used was also provided.

Some of the delegates in Darmstadt

After a lovely evening meal in the main square in Darmstadt, the second day focused more on managing and coordinating Mathematics and Statistics Support provisions. Session 4 of the workshop began by looking at setting up a mathematics and statistics support provision from a base of nothing whilst considering the different types of provision that are possible such as individual support, maths cafés, and larger dedicated centres. The session also explained how to build your provision effectively with staff, even if there is limited budget available to employ people. The final session focused on managing and developing provisions. Key

factors such as budgets, developing staff, working with senior management, and getting involved with networks of practitioners were discussed, showing that all of these can have a large impact on the development and reputation of a provision. We drew upon the expertise of an experienced manager of a maths and stats support provision, sharing practical insight and how to overcome challenges.

The workshop was gratefully received and has led to wider and new collaborations with German practitioners. We aim to build on this by discussing with delegates how the workshop has supported them in 3 months, 6 months and a year's time.

We gratefully acknowledge the receipt of funding from Coventry University's ESRC Impact Acceleration Account in supporting this Symposium.

REPORT

Workshop on Enhancing Inclusion for Neurodivergent Students in Mathematics and Statistics

Yamuna Dass, Assistant Professor in Statistics Support| Coventry University

ab3390@coventry.ac.uk

Ruth Hand | University of Bath

On Wednesday 17th September 2025, Coventry University hosted an in-person workshop titled "Enhancing Inclusion for Neurodivergent Students in Mathematics and Statistics". Organised in collaboration with the University of Bath and funded by the London Mathematical Society (LMS), the event brought together twenty colleagues from across the sector.

Judy Hornigold is presenting her talk on supporting students with

The keynote by Judy Hornigold focused on supporting students with dyslexia and dyscalculia. She referred to definitions from the Delphi Study to explain dyslexia, describing it as a set of processing difficulties that affect how students acquire reading and spelling skills. For dyscalculia, she referenced the SpLD Assessment Standards Committee (SASC), which defines it as a specific learning difficulty in mathematics, often involving persistent challenges with numerical magnitude processing, estimation and place value. Judy shared a range of practical strategies, including presenting materials in multiple formats, using assistive technology and clarifying key points through repetition. She also emphasised the importance of breaking down problems and making maths relevant by connecting to students' interests and experiences

This was followed by contributions from Emma Cliffe (University of Bath), Jonathan Fine (Open University, retired) and Balvir Bains (Loughborough University), who shared their experiences of supporting neurodivergent students in maths and statistics. Their talks explored the use of fonts and colours, tactile resources and structured support.

In the afternoon, Coventry University's Specialist Study Skills Tutors, Dove McColm and Louise Swain, led a session on supporting students with Specific Learning Differences (SpLDs) and other neurodivergent conditions, including autism and ADHD. They addressed challenges such as executive functioning, sensory processing and masking. Their session also offered practical approaches, such as adapting to individual needs, allowing processing time and creating flexible learning environments.

Dove McColm and Louise Swain are presenting their talk on supporting students with Specific Learning Differences (SpLDs) and other neurodivergent conditions.

The day concluded with a reflective group activity, where participants shared examples of good practice and agreed on key recommendations for supporting neurodivergent students

Feedback from participants highlighted the value of hearing diverse perspectives and gaining practical ideas. One participant noted, *"I didn't realise how very simple measures could make content more accessible, this was really eye-opening"*. Another commented, *"The workshop gave me ideas I can take back to my university to improve best practice"*. They appreciated the relaxed tone and the opportunity to network. The event encouraged reflection on how small changes can make a meaningful difference for neurodivergent students learning maths and statistics

ARTICLE

Some fortunate coincidences

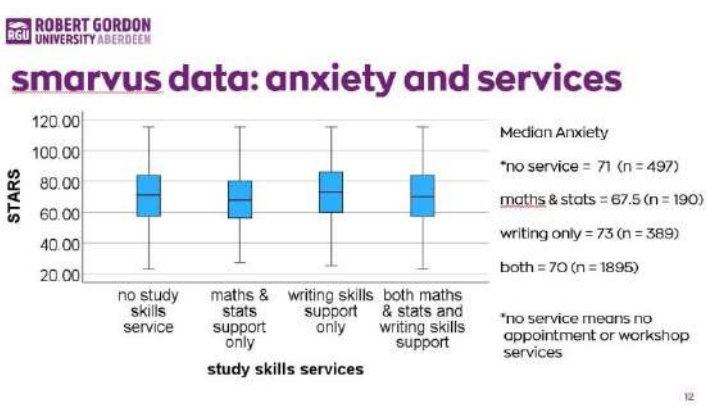
John Little, maths and statistics tutor (part time)I Robert Gordon University

j.little@rgu.ac.uk

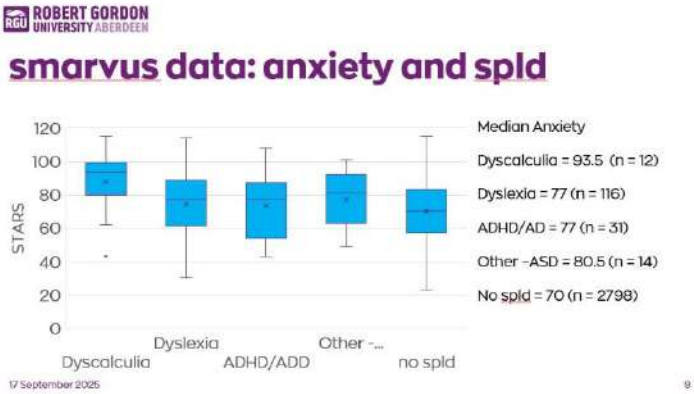
On June 5th my manager assigned me the objective to "address maths and stats anxiety including in relation to dyscalculia and other disabilities" with the suggestion that I start by delivering a short presentation to our Inclusion team. I was vaguely aware of some of the work that had been done in this area, for example by Marshall et al (2017), so I thought this would be an easy objective to start to address, at least in relation to the immediate task of a short presentation.

On July 14th, however, I was disappointed to discover that the Sigma coffee morning scheduled for 31st July (and from which I'd thought I might gain some inspiration) had been postponed in favour of something called the RoSE eConference 2025 which had in its programme a sub theme of Statistics Anxiety! July 31st arrived and by the next day my world view had altered significantly after listening to the talks, particularly in relation to the smarvus dataset (Terry et al, 2023). Now I was equipped not just with academic sources

to inform my planned talk but also with an interesting dataset that I could try to use to support my talk and from which I have included a couple of slide images below. These are based on a subset of smarvus comprising UK and Irish institutions and only including single SpLD groups.



STARS (statistics anxiety rating scale) catgorised by SpLD



STARS (statistics anxiety rating scale) catgorised by SpLD

As I am sure is the case for many others plying statistics support as part of their trade, summer months mean support for dissertation and resit statistics so in August I was afforded a timely opportunity to tentatively put into practice some ideas gleaned from the conference around explaining the maths and statistics anxiety phenomena, the associated avoidance coping mechanism and that doing statistics should be less anxiety inducing than thinking about it.

A last related coincidence was a student request for a recommended basic statistics course. In addition to my usual recommendations I was now able to add a resource, Statistics Launchpad, that claims and delivers accessible design as part of its remit.

References

Marshall, E.M., Staddon, R.V., Wilson, D.A. and Mann, V.E., (2017). 'Addressing maths anxiety and engaging students with maths within the curriculum'. *MSOR Connections*, 15(3), pp. 28-35. Available at: https://doi.org/10.21100/msor.v15i3.555

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Terry et al (2023) 'Data from an International Multi-Centre Study of Statistics and Mathematics Anxieties and Related Variables in University Students (the SMARVUS Dataset)', *Journal of Open Psychology Data*, 11(1), pp. 8-8. Available at: https://doi.org/10.5334/jopd.80

University of Nottingham (2025a). *Statistics Launchpad*. Available at: https://xerte.nottingham.ac.uk/play_46806#page1 (Accessed: 12 August 2025).

ARTICLE

Bringing Maths to Life for Biosciences Students

Anum Khalid, Lecturer in Mathematics I Queen Mary University of London

anum.khalid@qmul.ac.uk

Supporting biosciences undergraduates with mathematics has been a journey of learning and innovation at Queen Mary University of London. In our first year, we trialled fortnightly drop-in sessions where students could seek help with core concepts. While these sessions offered personalised support, we noticed many students preferred step-by-step guidance and were not yet confident in tackling problems independently. Attendance also varied, often due to competing deadlines.

In response, we redesigned our approach in the second year. Using student feedback and diagnostic test data, we created workshops that connected maths directly to laboratory practice. Topics such as unit conversions, molarity, and graph interpretation were explored through bioscience scenarios, helping students see why the maths mattered. Structured worksheets, scaffolded problems, and group discussions gave students both guidance and challenge.

The results have been encouraging. Students' pre- and post-workshop tests showed improved performance and confidence in applying maths to scientific problems. While abstract exercises were manageable, contextualised problems proved more challenging — highlighting the value of discipline-specific practice. Attendance was strong at first, though it naturally dipped towards the end of term as deadlines approached.

Looking ahead, we are exploring ways to keep students engaged throughout the year and to provide additional support as mathematical demands increase. By embedding maths in real-world bioscience contexts, we are helping students bridge the gap between theory and practice — and giving them the confidence to succeed.

ARTICLE

First steps in maths support for Life, Health and Chemical Sciences students at the Open University

Cath Brown, Lecturer I The Open University

cath.brown@open.ac.uk

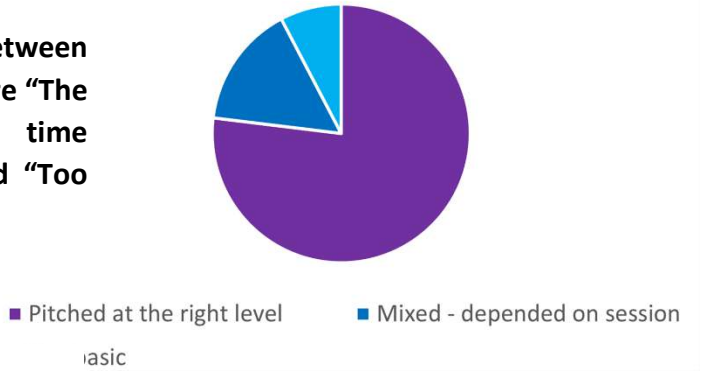
The Open University (OU) has no Maths Support Centre; support is delivered within their science modules for students studying in the School of Life, Health and Chemical Sciences. However, this approach is not universally successful. The in-module time that can be devoted to maths skills is limited, and anxious students are readily intimidated and often feel daunted by learning maths from module materials. Additionally, sometimes second and third year students have not fully grasped or retained the maths delivered in earlier modules.

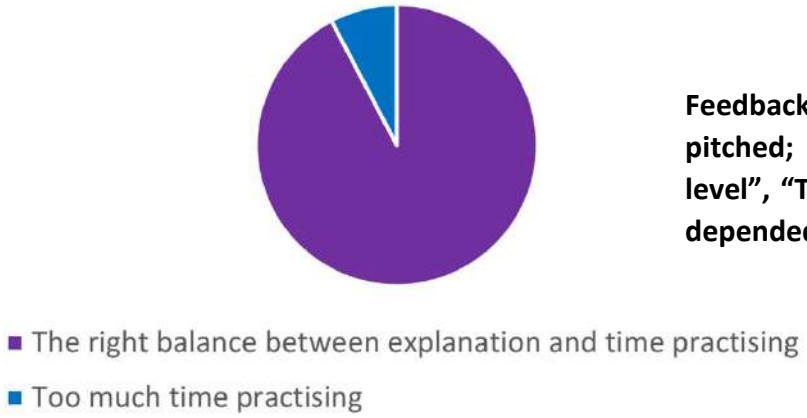
We are aiming to take a maths support centre type approach – delivering support outside modules. We have offered a combination of synchronous small group sessions, each focusing on a specific area, such as "BIDMAS", short recordings covering this material, and bookable one-to-one slots. As a distance learning university, all delivery is online. We are also developing question sets to accompany each topic. Longer term

plans include workshops and a full mapped library of resources for asynchronous access, augmented with curated external resources.

These were advertised to all students in the School. Over half of those who came were in their first year of study, with about 80% being women (there is a gender disparity in the School but not to this extent). Over half the students were in biological or health sciences; the remainder included some from outside the School, studying Environmental or Earth Sciences, as well as chemistry students. Some students became regular attenders, whilst others just came for topics they knew they had problems with. Some summarised results from a survey of attendees are shown in the figure.

Feedback on the balance in the live sessions between explanations and time practising; options were "The right balance between explanations and time practising", "Too much time practising" and "Too much time on explanations"





Feedback on the level at which the material was pitched; options were "Pitched at the right level", "Too advanced", "Too basic", "Mixed – depended on session"

Feedback on how helpful the live sessions and recordings were found to be; options were "Very helpful", "Helpful", "Mixed", "Unhelpful", "Very unhelpful"

What we have provided seems to be well-targeted, but we need to look at how to better attract students who need this support, in particular men who find maths a challenge.

ARTICLE

Learning Resource Development: A Student Intern Project at Coventry

Alun Owen, Associate Professor in Statistics and Head of Statistics Advisory Service I Coventry University

aa5845@coventry.ac.uk

Aiping Xu, Assistant Professor in Mathematics Support & Manager of sigma I Coventry University

aa9778@coventry.ac.uk

This summer, the **sigma** Mathematics and Statistics Support Centre at Coventry University employed two intern students to assist with the re-design and development of the portfolio of online learning resources available from the Centre.

Student proctor Alvisha Aslam

Alvisha Aslam, a 2nd year Computer Science and AI student, developed a suite of 14 interactive numeracy copilot agents to support nursing and foundation-level students. Each agent focused on a specific skill area, including basic arithmetic, directed numbers, fractions, decimals, percentages, ratios, rounding, standard form, metric units, and drug dosage calculations. Alvisha designed clear, step-by-step instructional content for each topic and integrated interactive practice modes such as quizzes, hints, worked examples, and mixed drills. She also standardised answer validation formats using LaTeX, correct/incorrect answer feedback, and supportive explanations to enhance learner's understanding. This work involved overcoming challenges such as balancing accuracy with simplicity, maintaining consistency across all agents, and implementing reliable technical formatting across varied mathematical operations. The final 14 copilot agents now provide a robust, learner-friendly platform for reinforcing essential numeracy skills.

Chloé Ireland, a final year Data Science student, developed the Centre's portfolio of SPSS statistics worksheets, creating versions of all of these for RStudio, JASP and Jamovi. Chloé also converted these from Word/pdf to RMarkdown to help improve their accessibility, which also facilitated the creation of html versions to further enhance students' experience, particularly on a mobile device. These resources have been incorporated into a newly redesigned web page that is public facing and accessible to anyone here https://libguides.coventry.ac.uk/c.php?g=712076&p=5318942. In recognition of her work on this project and her exceptional performance as a student proctor working in the **sigma** Centre, Chloé was nominated for and was successful in winning an excellence award from the combined Irish, Scottish, English & Welsh networks at this year's CETL-MSOR Conference in Liverpool.

Chloé Ireland receiving her Excellence Award

Steering Group Membership - Spring 2025

Steering group

· Alison Loddick, University of Northampton

· Ellen Marshall, Coventry University

· Emma Cliffe, University of Bath (Vice-chair Technical)

· Gareth Woods, Aston University

· Mark Hodds, Coventry University (Chair)

· Peter Hart, University of Sheffield (Mailing List Co-ordinator)

· Rob Wilson, Cardiff University

· Safa Elsheikh, Loughborough University (Secretary)

· Sue Pawley, Open University (Vice-chair Operations and Newsletter Editor)

· Tony Mann, University of Greenwich (Treasurer)

Co-opted:

· Ed Southwood, University of Bath (Membership secretary)

· Evi Papadaki, University of Bath (Events Secretary)

Representatives:

· Tom Coleman (SMSN)

· Duncan Lawson (IMA)

· Deirdre Casey (IMLSN)