

Maths Mindset: Engaging families to overcome maths anxiety

Family Learning Conference

Thursday 22 February 2024 | Online | 9.30-2.00pm

“Good numeracy is the best protection against unemployment, low wages and poor health”.

Andreas Schleicher of the OECD

Love it or hate it, maths is a skill that all of us need and use in our everyday lives. As families feel the impact of the cost-of-living, the advantages of being confident with numbers could not have been more compelling than in 2023. Most parents want their children to do well in mathematics but may be unsure about how to support this. Maths anxieties, biases and stereotypes, or lack of resources and opportunities can often hold families back from reaching their full potential.

This conference will give you opportunities to:

- discover creative and effective initiatives that will engage underserved and under-reached families with your maths activities or programming
- understand how to help families overcome maths anxiety and build maths confidence
- gain a richer understanding of how you can raise aspirations from the early years to Multiply adult numeracy programmes.

With the £560 million investment in the Multiply Numeracy programme, now is the time to be part of the maths movement to boost number confidence and numeracy skills.

Join our online conference for:

-  inspiring keynote speakers
-  information rich workshops
-  opportunities to connect and share with other professionals
-  access to all event recordings and resources.

Feedback from the previous family learning conference

“This invaluable event was constructive, practical and challenging in the best way. The quality of the speakers was exceptional and I learned a huge amount in a very short time.”

Helen Jacobs, Head of Learning & Engagement, RWA Bristol

Earlybird ticket £60+VAT (until 12 January 2024)

Standard Ticket £75+VAT (from 9 January 2024 onwards)

Book your tickets now



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Who should attend?

This conference is ideal for colleagues working with families and are looking to boost engagement and confidence in maths. If you are a practitioner, programmer, manager, creator or communicator working with families and want insights, tools and practical approaches to create positive change in attitudes to maths then you need to attend.

This conference is for:

- adult and community learning practitioners and tutors
- family learning practitioners and tutors
- Multiply programme managers and tutors supporting financial education and family numeracy
- curriculum managers
- project and outreach managers and officers
- family engagement and support practitioners in schools, libraries and community settings
- learning and community engagement managers and officers
- museum and gallery practitioners
- early years practitioners in nurseries, schools, family hubs and children centres.

Attendees from last year's conference said:

"It was a good opportunity to share and have some great ideas from other professionals. I could implement these ideas in my teaching."

Family Learning Tutor for a Local Authority

"Wow. Amazing Family Learning event. So many engaging and new ideas to take forward to my learners."

Family learning practitioner

"This event was an excellent opportunity to learn about new family learning initiatives across the country and to share good practices."

Rebecca Clarke, Curriculum Lead Families & Wellbeing, Plymouth City Council

Programme

- 9:30am** **Welcome and overview**
- 9:40am** **Keynote: Paul Foss, Head of Impact and Evaluation, National Numeracy**
Number confidence - the missing piece of the number skills puzzle
- 10:10am** **First workshops: Choose one session from 1-3**
Please note, all sessions will be recorded and be available to watch after the conference.
1. **Maths in museums** with Tom Briggs,
Maths & Museums Learning Consultant
 2. **Maths through stories** with Dr Natthapoj Vincent Trakulphadetkrai,
University of Reading
 3. **Conquering adult maths anxiety with care in the classroom** with
Peter Whitehead, Manager Maths and Multiply, WM College
- 11:10am** **Break**
- 11:20am** **Networking rooms**
- 11:40pm** **Networking feedback**
- 11:50pm** **Keynote: Dr Helen J. Williams**
Playful mathematics - what is it and why is it important?
- 12:20pm** **Lunch**
- 12.45 pm** **Second workshops: Choose one session from 4 - 6**
Please note, all sessions will be recorded and be available to watch after the conference.
4. **Engaging families with creative maths** with Neva Brentnall,
Co-Director, Maths on Toast
 5. **Maths mindsets: engaging families to overcome maths anxiety**
with Stacy Mann, Senior Advisor, Families, Early Years and Childcare
 6. **Multiply from development to delivery** with Sabirah Ali, Head of
Community and Cultural Learning, Westminster Adult Education Service
and Juliette Collier, National Director, Campaign for Learning
- 1:45pm** **Group discussion**
- 2:00pm** **Evaluation and close**



Number confidence - the missing piece of the number skills puzzle

Confidence is crucial to unlocking skills improvement, alongside growth mindset and valuing maths in daily life. Paul will set out the scale of the issue and how National Numeracy's number confidence approach is making a difference to people's lives at work, with their families and beyond.

Paul Foss, Head of Impact and Evaluation, National Numeracy

Paul provides impact and data analysis in all aspects of the organisation, from Challenge statistics, educational projects and numeracy reviews, to surveys, working with external partners and helping to inform marketing strategy. Paul was a freelance data analyst with over 20 years' experience in the private sector, and a secondary school maths teacher for 6 years.

Playful mathematics - what is it and why is it important?

Helen will explore some mathematical tasks for families and children in the early years and some of the evidence behind their importance.

Dr Helen J Williams is an independent educational consultant specialising in the learning and teaching of early mathematics. Her doctorate explored the mathematical potential of role play. [She writes](#), researches and teaches mathematics alongside colleagues in schools and settings, contributing to initial teacher training and in-service conferences across the UK and Europe. She is a founder member of the [Early Childhood Mathematics Group](#). Her book 'Playful Mathematics for Children 3 to 7' (2022) won the Nursery World Professional Book of the Year Award.

Workshops

1 Maths in museums

Drawing on his work in museums and schools and [his academic work](#), Tom will focus on the 'infectiousness' of mindsets with regards to mathematics, exploring the idea that positivity towards mathematics is essential for success in mathematics, and that attitudes towards the subject are not just based on 3-4 hours per week in the maths classroom but also on maths-related experiences for the rest of the waking week. To succeed, children need to experience positivity and growth mindsets towards maths in all areas of their lives, and [parents have an essential role](#) in shaping these experiences.

Tom Briggs, Maths Communicator & Museum Learning Consultant

Tom is a qualified mathematics teacher and experienced museum educator with professional interests in bringing mathematics to the masses, using digital technologies to enhance experiences offline and engage new learners online; and discovering mathematical content in the stories of museum and heritage sites. As a teacher, Tom strives to help students connect the maths that his students are learning to their everyday lives, interests, hobbies and experiences, and introduces them to interesting historical contexts to enrich their understanding and help them experience the true beauty of maths. Tom was the Learning Manager at Bletchley Park, where he designed and delivered the highly regarded Enigma Outreach programme and drove the inclusion of maths in all aspects of the learning offer.

2 Maths through stories

In this workshop, Dr Trakulphadetkrai will talk about different types of mathematical story picture books and how they can be integrated into maths teaching and learning through examining well-selected case studies. You will learn:

- how teaching mathematics using story picture books can be a pedagogically powerful strategy and explore its underpinning theories
- how asking students to create short mathematical story picture books can help develop their understanding
- how to access free ongoing support from the [MathsThroughStories.org](https://www.mathsthroughstories.org) website and be part of this non-profit initiative.

Dr. Natthapoj Vincent Trakulphadetkrai, Associate Professor of Mathematics Education at the University of Reading

Dr. Trakulphadetkrai is the founder of [MathsThroughStories.org](https://www.mathsthroughstories.org) which supports teachers and parents globally to enrich their children's mathematics learning. He is an ESRC-funded UKRI Policy Fellow supporting the Education Endowment Foundation. Previously, Dr Trakulphadetkrai served as the co-convenor of the British Educational Research Association's Mathematics Education Special Interest Group. He has been an executive committee member of the British Society for Research into Learning Mathematics and the UK Association of Teachers of Mathematics. He served as chair of the British Congress of Mathematics Education's Communications Committee and co-edited the Mathematical Association's Primary Mathematics Journal.

3

Conquering adult maths anxiety with care in the classroom

‘Teaching mathematics should be an act of love, not an imposition of power’.

In this session, Peter will share his lessons learned, and classroom techniques developed, from having supported over 10,000 adult and young adult maths learners who have not succeeded in maths at school. The WM College’s Multiply programme has taken their maths delivery into a range of community settings including a hostel for homeless families where they work with parents and children together and community centres running maths homework clubs for families. The same principles apply even in such diverse environments. Conquering maths anxiety with ‘care’ sounds simple: but what does it mean; what does it look like; and what does it not look like?

Peter Whitehead, Manager Maths and Multiply, WM College

Peter has led maths curriculums in large FE colleges and is currently working in an adult and community setting managing maths (including Multiply). His particular interests are social inclusion (maths for social justice); maths difficulties (anxiety, dyscalculia); and innovative uses of technology in education (AI). His current role takes him out to help develop maths skills in a range of community and family learning settings: primary schools, community centres, food banks and homeless shelters.

4

Engaging families with creative maths activities

In this session, Neva Brentnall from Maths on Toast will explore creative ways of encouraging families to engage in their children’s learning. Find out how maths can be sticking, cutting, colouring and building and how you can really play with maths to remove barriers to learning and tackle maths anxiety. Maths on Toast’s 5 key principles underpin their creative maths approach, helping to develop a deeper understanding of mathematical concepts and how to embrace making mistakes and explore maths in our everyday world. Bring along: Paper, scissors and some colouring pens!

Neva Brentnall, Co-Director, Maths on Toast

Neva Brentnall is co-director of [Maths on Toast](#), the family maths charity. Maths on Toast’s mission is to give families and communities enjoyable, hands-on, creative experiences of maths; and the opportunity to explore and ‘play’ with maths that relates to everyday life and the world around us. The aim is to broaden perceptions of what maths is and where it is found, and build a positive, can-do attitude and the confidence to investigate and explore, to try and test are crucial elements in shaping an able and resilient maths learner. As part of her role, Neva has developed activities, resources, projects, products and programmes to work with families, communities, libraries, schools and partner organisations.

5

Maths Mindset: Engaging families to overcome maths anxiety

This workshop is designed to transform your perspective on mathematics and equip families with the tools to conquer maths anxiety together. Mathematics can be a source of fear and frustration for many, but it doesn't have to be. This 'Maths Mindsets' workshop will explore how to engage families in a dynamic and interactive learning experience that will foster a positive attitude towards it. It will cover:

- **Understanding maths anxiety:** Learn about the origins and impact of maths anxiety and discover practical strategies to recognise and address it within families
- **The growth mindset approach:** Explore the power of a growth mindset and how it can reshape the way families perceive their maths abilities
- **Family learning strategies:** Discover innovative techniques and activities that will enable parents and children to explore maths together, fostering a supportive learning environment at home.
- **Community building:** How to help families facing similar challenges build a supportive network to share experiences and successes.

Stacy Mann, Senior Adviser – Families, Early Years and Childcare, Campaign for Learning

Stacy has worked in the early years sector for 23 years, starting as a nursery nurse and working up to nursery manager and then children's centre manager. Stacy exudes passion for wellbeing and a positive mindset which has become her area of expertise. In her role at Campaign for Learning she is currently supporting the content development for a new DfE Family Numeracy product that will be tested in randomised control trials as part of the DfE Multiply national adult numeracy programme.

6

Multiply - from development to delivery

In this workshop we will share new national development work on a Multiply Family Numeracy product that will be tested through randomised control trials across England and explore the challenges and solutions of engaging adults to overcome maths anxiety within local delivery settings.

Sabirah Ali, Head of Community and Cultural Learning, Westminster Adult Education Service

With over 20 years' experience in the adult education, FE and cultural sectors, Sabirah leverages her skills and credentials in curriculum development, linguistics, coaching and widening participation to design and implement innovative and impactful community education programmes. She focuses on creating inclusive and accessible learning opportunities, that upskills and raises the confidence of diverse and disadvantaged communities. In her current role, she leads a multi-disciplinary team, overseeing complex and nuanced delivery. She develops strategic partnerships with community hubs, libraries, the voluntary sector, social enterprises and grassroots organisations to better serve under-represented communities. Sabirah is a qualified Level 7 Coach, has an MA in Applied Linguistics and a Certificate in Education.

Juliette Collier, National Director, Campaign for Learning

Juliette leads the family, school and community learning work at the Campaign for Learning. She is a powerful and passionate advocate for the use of family learning approaches to develop motivation and confidence for learning for people of all ages to improve their life chances. She is currently the strategic lead on two family numeracy programmes, including a new family numeracy product for the national DfE Multiply Adult Numeracy programme and an Early Years family maths initiative to develop children's and parents' maths confidence, vocabulary and understanding through storytelling.