PROGRAMME AT A GLANCE

24-25th April 2025
Birkbeck, University of London
Malet St, London, WC1E 7HX

Pre-Conference Training *10:00 - 12:00*

Conference Day 1 *13:00 - 19:00*

13:00 - Registration opens

13:45 - Welcome

14:00 - Keynote 1 (Usha Goswami)

15:00 - Presentation session 1

16:00 - Coffee break

16:30 - Lightning talks 1

17:30 - Poster session 1 and drinks reception

Informal Dinner *19:30-22:00*

Conference Day 2 *09:00 – 15:00*

09:00 - Presentation session 2

10:00 - Coffee break

10:30 - Keynote 2 (Paul-Howard Jones)

11:30 - Lightning talks 2

12:30 - Poster session 2 and lunch

13:30 - Debate and closing remarks

15:00 – Conference closes

Keynote 1 *14:00 – 15:00*

Prof Usha Goswami, University of Cambridge
Dyslexia, Rhythm, Language and the Developing Brain

Presentation session 1 *15:00 – 16:00*

Dr Cristina Rodríguez, University of Talca
Early Cognitive Predictors of Reading and Mathematical Disabilities: A Longitudinal Study of Comorbidities

Dr Rebecca Merkley, Carleton University
The AIM Collective: Connecting Research and Practice in Early Math Education in Canada

Dr Zahra Siddiqui, UCL IOE
MathMIND – classroom observations of numeracy classes for children with genetics conditions

Prof Roberto Filippi, UCL IOE
The Impact of Multilingualism and Socio-Economic Status on Academic Performance: Evidence from the SCAMP and the UK National Pupil Databases

Lightning talks 1 *16:30 – 17:30*

Dr Amy Fancourt, UCL IOE
Co-producing an agenda for research into the impact of artists in schools

Li Nicole Tan, University of Cambridge
The temporal sampling hypothesis: evidence from a rhythm-based intervention in children with developmental language disorder

Astrid Bowen, Birkbeck College
Challenges in Conducting Evaluations of Complex School-based Interventions

Dr Effrosyni (Froso) Argyri
Cognitive and neural correlates of biliteracy proficiency in English-Greek bilingual children

Yuxi Zhou, UCL IOE
Open-skills sports, especially team ball games, are associated with cognitive functions in adolescents: A time use diary study

Dr Tamer Said, Anglia Ruskin University
Exploring the Impact of Executive Functions and Motivation on Science Learning

Dr Sylvia Gattas, University of Surrey, UCL IOE
Investigating the Impact of Emotional Modulation on Attentional Numerical Representations in Childhood

Dr Katie Gilligan-Lee, University College Dublin
SIMS: Spatial Thinking in Mathematics Study

Presentation session 2 *09:00 – 10:00*

Abdul Karim Ismail, University of Oxford
A Meta-Analysis of EEG Spectral Power for Measuring Cognitive load in Educational Contexts

Nicholas Napolitano, University of Talca
Interventions for Executive Functions in Children and Adolescents: A Meta-Analytic Study on Efficacy and Moderators in Clinical and Non-Clinical Samples

Dr Gemma Goldenberg, University of East London
Learning outside the box: The impact of learning outdoors on urban children's noise, stress, attention and behaviour

Dr Anastasia Giannakopoulou, University of Bedfordshire
Enhancing Cognitive and Academic Skills in Children through Adaptive Virtual Reality and Tablet-based Interventions

Keynote 2 *10:30 – 11:30*

Prof Paul Howard-Jones, University of Bristol
The journey from neuroscience research to education

Lightning talks 2 *11:30 – 12:30*

Stella Xu, UCL IOE
Individual Differences and Mathematical Profiles in Williams syndrome and Down syndrome

Dr Jennifer C Bullen, University of Oxford
Assessing cross-domain contributors to numeracy in children with Down Syndrome, Fragile X Syndrome, and Williams Syndrome: Preliminary lessons learned from the MathMIND Project

Dr Eric D Wilkey, Vanderbilt University
Investigating the Neural Profiles of Children Identified for Math Support with Resting-State Functional Connectivity MRI

Prof Roberto A Ferreira, University of Talca
Working memory as a mediator of math vocabulary and performance

Dr Mojtaba Soltanlou, UCL IOE
Educational neuroscience of mathematical learning and development in South African children

Dr Christina Artemenko, University of Tuebingen
Finger-based numerical representations in the sensorimotor cortex in children and adults — Evidence from fNIRS

Dr Ann Dowker, University of Oxford
The Numbers Count Intervention: Evaluation of Long-term Effectiveness

Prof Emily K Farran, University of Surrey
Teacher delivered block construction training improves children's mathematics performance

Poster session 1
17.30–19.00 Thursday 24th of April

Irem Melisa Sahiner, University of Surrey
Unveiling the Neural Foundations of Numerical Cognition: A Longitudinal fNIRS Study in Toddlers

Andrea N. Burgess, Vanderbilt University
How text arousal modulates neuronal demands during reading

Mahitab Elgemal, UCL IOE
Modelling the effects of SES and cognitive interventions on developmental trajectories in Artificial Neural Networks

Shannon Rosbotham, University College Dublin
Does socioeconomic status moderate the spatial-mathematics association over time? An investigation using the Millennium Cohort Study

Hannah Palmer, University of Oxford
Knowledge is Power: Exploring the Knowledge Change of Early Years Practitioners Who Partook in The ONE (Orchestrating Numeracy and The Executive) Programme

Imogen Green, Birkbeck, University of London
Scaffolding or explanatory: The effect of teaching style on neural synchrony in teacher-student interactions

Cheyenne Contreras, King's College London
Developmental Trajectories of Sensory Processing in Children with Tuberous Sclerosis Complex (TSC)

Dr Monika Szczygieł, Jagiellonian University
Validity and Reliability of Approximate Number System Measurement

Diana Ball, University of Chester
A small-scale exploration of the differing ways in which a sample of young people with mathematics difficulties use finger-counting to help them calculate

Rakhi Leela Nair, UCL
Mathstronauts – Capturing neural and behavioural data of inhibitory control in counterintuitive maths reasoning to improve executive function in children

Dr Sophia M. Shatek, University of Oxford
Brain connectivity during a magnitude comparison task in 4- and 6-year-old children

Bethan Grimes, University of Oxford
Connecting the Dots: EEG Coherence and Early Math Ability

Belinda Edington, MindSpark
Evaluating a Meta-Model Classroom Intervention to Enhancing Executive Function Skills and Metacognition in 5-10 Year Olds.

POSTER SESSION 1

Poster session 1
17.30–19.00 Thursday 24th of April

Dr Anna Ballantyne, University of Virginia
Ensuring Representative Sampling in Pediatric Neuroimaging Research: A Longitudinal Math and Memory Case Study

Eleanor Redfern, University of York
Mathematics Anxiety, Executive Control and Sleep: Extending Harrington & Cairney's (2021) Hypothesis Beyond Clinical Mental Health Disorders

Prof Manuel Redondo-Vidal, Loyola University Andalusia
Academic performance and dual mechanisms of cognitive control in school-age children

Selma Al Makzomy, UCL
Exploring the impact of teaching neuroplasticity on children's academic self-efficacy and school achievement

Dr Stephanie Armstrong-Gallegos, Universidad de La Frontera
Quality Interactions in Preschool Classrooms: The Impact of Educator Practices on Early Childhood Cognitive Development

Esther Wing-Chi Yip, University of Cambridge
The Relationship between Theory of Mind and Evaluative Language Use in Narratives of Cantonese-speaking Adults

Dr Derya Atalan Ergin, Kapadokya Üniversitesi
Neuroeducational profiles of gifted children and adolescents: A Systematic Review

Poster session 2
12:30–13.30 Thursday 24th of April

Diana Ball, University of Chester
Why are they still using their fingers?

Prof Giancarlo Gola, University of Applied Sciences and Arts Southern Switzerland
Neural Activation During the Teaching Experiences

Dr Mcebisi Ntleki, University of Oxford
Bridging Neuroscience and Education: An AI-Powered Framework for Multimodal Neuroimaging Analysis

Elizaveta Ivanova, University of Surrey
The Emerge of symbolic numerical knowledge in early development – An fNIRS Registered Report

Anabel Fernández-Blanco, Universidad de Talca
Executive Functions as a Buffer: Moderating the Impact of Trait-Math Anxiety on Math Problem Solving in Chilean Schoolchildren

Nicholas Napolitano, Universidad de Talca
Digital Gamified Interventions to Enhance Executive Functions in Children with ASD and ADHD: Insights from an Exploratory Clinical Study in Colombia

Dr Masha Apostolidu, University of Derby
Predicting mathematics self-efficacy and anxiety in further education students: the importance of individual psychological variables and perceptions of past and present teachers

Professor Anna Franklin, University of Sussex
Children with Colour Vision Deficiency are Disadvantaged in KS2 and KS2 Maths

Dr Abdulhamit Kurupinar, Birkbeck, University of London
The Effect of Educational Intelligence Board Games on the Cognitive Developments of the Preschool Children with Special Needs

Sarah McCarthy, University of Surrey
The association between children's socioeconomic status (SES), their spatial skills and later mathematics understanding

Dr Temitope Ladenika, UCL IOE
The problem of sampling diversity in EN research

Khadijah Asif, University of East Anglia
Information trade-offs in adolescents with Autism and spectrum of ADHD traits

Prof Ulrich Dettweiler, University of Stavanger
Exploring Parasympathetic Activation in Nature-Based Therapy: Benefits for Neurodiverse Children

Poster session 2
12:30-13.30 *Thursday 24th of April*

Yani Qiu, UCL
Prefrontal cortical activation when learning irregular words: an fNIRS study

Prof Andy Tolmie, UCL IOE
The impact of spaced learning within physics lessons in secondary schools

Dr Juhayna Taha, UCL IOE
Unifying language, reading and handwriting impairments in dyslexia: the Inefficient Anticipatory Planning Hypothesis

Dr Erika Galea, University of Malta
Regulating Emotions in the Classroom to Improve the Quality of Teaching and Learning in the Early Years

Dr Jessica Massonnie, University of Portsmouth
"Research, the more we see it, the more we believe in it" – Investigating the concept of "evidence" with French Primary School Teachers involved in an evidence-based educational network

Dr Minkang Kim & Dr Derek Sankey, University of Sydney
The neurobiology of moral learning and development: Educational neuroscience research and school practice

Dr Nina Polytimou, UCL IOE
There is music in the math and math in the music: can PlayMyMath support the teaching of fractions in UK schools?