AUD | AMERICAN UNIVERSITY IN DUBAI
School of Arts and Sciences

MATHEMATICS EDUCATION RESEARCH GROUP UAE

THE FIRST INTERNATIONAL

MATHEMATICS EDUCATION CONFERENCE

IN THE UAE

Nurturing Mathematical Futures: Innovation, Inclusivity, and Impact on Education in the UAE

CONFERENCE PROGRAMME

SPONSORED BY

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1st Mathematics Education Conference in the UAE
Nurturing Mathematical Futures:
Innovation, Inclusivity, and Impact on Education in the UAE

Date: October 10, 2026
Location: American University of Dubai, UAE

8:00 AM to 8:30 AM	**Registration**
8:30 AM to 9:30 AM	**Opening Ceremony**
9:30 AM to 10:15 AM	**Keynote Speaker:** **Dr. Rabih El Mouhayar, Associate Professor of Mathematics Education, American University of Beirut**
10:15 AM to 10:30 AM	**Commemorative Photo**
10:30 AM to 10:45 AM	**Coffee Break**
10:45 AM to 12:30 PM	**Parallel Sessions 1**

Venue 1	Venue 2	Venue 3	Venue 4
Parallel session #1 **10:45 -12:30** Chair: Rana Zein **10:45-11:05** **Do Animated Digital Lessons Improve Conceptual Understanding? Evidence from an RCT with Secondary Maths Students Studying Straight Line Graphs** *Will McLoughlin* *British International School, Abu Dhabi*	**Parallel session #1** **10:45 -12:30** Chair: Evrim Erbilgin **10:45-11:05** **Enhancing Graduate Students' Peer Feedback Quality** *Evrim Erbilgin, Jennifer Robinson* *Emirates College for Advanced Education* Theme: Empowering Mathematics Educators: Professional Growth and Collaboration **11:05- 11:25** **A Suggested Structure for the Growth**	**Parallel session #1** **10:45 -12:30** Chair: Serigne Mbaye Gningue **10:45-11:05** **From Procedures to Proficiency: Strand-Based Algebra Instruction in Grade 8** *Raheela Naseeha* *United Arab Emirates University* Theme: Cultivating 21st Century Mathematics Literacy **11:05- 11:25** **Utilising Mathematics in Environmental Scientific Research for Cycle 2 Students:**	**Parallel session #1** **10:45 -12:30** Chair: Perla Kfoury **10:45-11:30** **Neurocognitive Foundations of Design Thinking and Problem-Based Learning in Mathematics Education** *Iman Ayas* *Abu Dhabi Department of Education (ADEK)*

Theme: Innovating Mathematics Pedagogy for the Digital Age

11:05- 11:25

AI Prompt Engineering in Education: Impact on Instructional Practices and Learning Outcomes for Teachers and Students

Mohamed Khalifa
Ajman University
Theme: Innovating Mathematics Pedagogy for the Digital Age

11:25-11:45

Secondary Mathematics Teachers' Perceptions of Generative AI-Based Adaptive Activities

Rabie Adnan Mahmoud, Abdullah Ahmad Alkoud, Nissrin Shaya
Ajman University
Theme: Innovating Mathematics Pedagogy for the Digital Age

11:45-12:05

The Promise and Peril of Immersive Learning: A Qualitative Study of Virtual Reality Integration in UAE K-12 Classrooms

Rana Zein, Osama Taani, Rafiq Hijazi
Sharjah Education Academy / Zayed University
Theme: Innovating Mathematics Pedagogy for the Digital Age

12:05 – 12:25

The Impact of Digital Visual Learning Tools on Fraction Operations Understanding Among Grade 6-7 Students in UAE Private Schools

Osama Taani, Suzan Alabidi, Rana Zein
Sharjah Education Academy / Al Ain University, UAE
Theme: Innovating Mathematics Pedagogy for the Digital Age

of Mathematics Educators: Incorporating Artificial Intelligence into Formative Assessment to Enhance Learning Results

Azhar Shater, Sherin Alamassi, Eman Zaitoun
Al Ain University / Liwa University
Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

11:25-11:45

Public School Teachers in Abu Dhabi Using Game-Based Learning to Promote Student Learning

Lauren Misiewicz, Jason Johnson, Evrim Erbilgin
Al Dhabianiah School / Emirates College for Advanced Education
Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

11:45-12:05

Using AI in Mathematics Education: Exploring Secondary Mathematics Educators' Readiness Using the Technology Acceptance Model

Daliya Ashok, Anita Dani, Binita Bhatia
GlobalNXT University
Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

12:05-12:25

Pre-service Teachers' Noticing of Whole Number Calculation Strategies

Alia Alkaabi, Lise Westaway
United Arab Emirates University
Theme: Empowering Mathematics Educators: Growth and Collaboration

The Model of GLOBE Student Research Reports (IVSS)

Asma Zaitoun, Haneen Zaitoun
Zayed City School, Abu Dhabi /
Innovation for Creativity Development Association (Jordan)
Theme: Cultivating 21st Century Mathematics Literacy

11:25-11:45

Early Years Pre-Service Teachers' Mathematics Knowledge for Teaching the 'Rounding and Adjusting' Mental Calculation Strategy

Lise Westaway, Alia Alkaabi
United Arab Emirates University
Theme: Cultivating 21st Century Mathematics Literacy

11:45-12:05

Using Algebra Lab Gear to Address 9th Grade Students' Difficulties in Understanding the Meaning of Variables in Algebra

Serigne Mbaye Gningue
Emirates College for Advanced Education
Theme: Cultivating 21st Century Mathematics Literacy

Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

Setting up between workshops: 15 min

11:45- 12:30

Resituating 3D Mathematics in 3D Space: Using Augmented Reality (AR) Tools to Support Advanced Spatial Reasoning and Multivariable Modelling in Multicultural Engineering Programs

Katherine Riding, Dan O'Brien
University College London / Loughborough University
Theme: Innovating Mathematics Pedagogy for the Digital Age

12:30 PM to 2:00 PM **Lunch + Posters**

Advancing STEAM Integration in School Mathematics: A Leadership-Supported Implementation Model and its Impact on Mathematical Learning
Eman Kemiha
Ajman University
Theme: Innovating Mathematics Pedagogy for the Digital Age

Designing Visual Metaphors in Mathematics Education – A Statistics Classroom Perspective
Eliazar Dimalapang
Higher Colleges of Technology
Theme: Innovating Mathematics Pedagogy for the Digital Age

Introducing the 'Jump' Calculation Strategy to Develop Number Sense: Evidence from a Short-Term Intervention in a Grade 2 Mathematics Class
Laily Moidu; Lise Westaway
United Arab Emirates University
Theme: Cultivating 21st Century Mathematics Literacy

Assessing Semiotic Competence in International Mathematics Classrooms: A Review of Current Assessment Items
Tanvi Doiphode; Anita Dani
GlobalNXT University
Theme: Cultivating 21st Century Mathematics Literacy

Do 3-Minute Micro-Quizzes Improve Retention in Quantitative Courses?
Reyaz Ahmad; Mohammad Nabeel Babar; Muhammad Mubashir Ayaz
Hamdan Bin Mohammed Smart University / Horizon University College
Theme: Cultivating 21st Century Mathematics Literacy

Teachers' Beliefs and Classroom Implementation of the 5E Constructivist Model in Mathematics Education
Muhammed Shittu
United Arab Emirates University
Theme: Cultivating 21st Century Mathematics Literacy

Strategies for Fostering Student Engagement in the Calculus Classroom
Ghada Alobaidi
American University of Sharjah
Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

2:15 PM to 3:15 PM **Panel Discussion**

Mrs. Suad Abuharb, Principal of Dubai National School – Al Barsha

Dr. Ayman Hefnawi, Mathematics Instructor at ADVETI, Abu Dhabi

Dr. Hania Mahassen, Mathematics Division Head and Associate Professor of Mathematics at the American University in Dubai

Dr. Qassim Alshannag, Associate Professor at Emirates College for Advanced Education

3:15 PM to 3:45 PM **Coffee Break**

3:45 PM to 5:30 PM **Parallel Sessions 2**

Venue 1

Parallel session #2

3:45 -5:30

Chair: Hanin Al Jebawy

3:45-4:05
Integrating Sustainability in Undergraduate Education
Hanin Al Jebawy
American University in Dubai
Theme: Innovating Mathematics Pedagogy for the Digital Age

4:05- 4:25
We Need to Talk About Indeterminate Limits
Gabriel Jarry-Bolduc, American University of Sharjah
Theme: Innovation in Mathematics Pedagogy for the Digital Age

4:25- 4:45
The Effects of Computer Algebra System-Supported Instruction on Architecture Students in University-Level Calculus.
Rola Kiwan; Olga Nassar Saad
American University in Dubai
Theme: Innovating Mathematics Pedagogy for the Digital Age

4:45-5:05
Reimagining Mathematics Learning Through Gamification: Achievement and Motivational Outcomes Among UAE Six-Grade Students
Adeeb Jarrah, Alaa Algburi
Emirates College of Advanced Education / United Arab Emirates University
Theme: Innovating Mathematics Pedagogy for the Digital Age

Venue 2

Parallel session #2

3:45 -5:30

Chair: Eman Zaitoun

3:45-4:05
Leveraging Chatbots to Transform Flipped Mathematics Classrooms and Teacher Practice in K-12 Education
Sherin Alamassi, Eman Zaitoun, Azhar Shater
Liwa University / Al Ain University
Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

4:05-4:25
From Vision to Practice: Examining the Depth of Stream Integration in Abu Dhabi Primary Mathematics Classrooms
Nadeia Al Alawi
Ministry of Education, UAE
Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

4:25-4:45
Unveiling the Challenges: Exploring Difficulties in Integrating History of Mathematics in UAE Public Schools
Osama Taani, Rana Zein, Eman Zaitoun, Suzan Alabidi, Carla Rudder, Jason D. Johnson
Sharjah Education Academy / Al Ain University / Rabdan Academy / Emirates College for Advanced Education
Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

4:45-5:05
Teacher-Students' Perceptions of Using MagicSchool for Assessment Analytics
Eman Zaitoun, Azhar Shater, Sherin Alamassi
Al Ain University / Liwa University
Theme: Empowering Mathematics Educators: Professional Growth and Collaboration

Venue 3

Parallel session #2

3:45 -5:30

Chair: Jennifer Robinson

3:45-4:05
Student-Generated Content Rubrics in Mathematics Classrooms: Impact on Achievement, Engagement, and Transformative Learning
Nayera Selim
Ajman University
Theme: Equity and Inclusion in Mathematics Education

4:05-4:25
Mentorship Engagement and Academic Outcomes among Developmental Mathematics Students Identified for Additional Support
Olgar Nasser Saad, Noor Rizvi
American University of Dubai
Theme: Equity and Inclusion in Mathematics Education

Venue 4

Parallel session #2

3:45 -5:30

Chair: Lise Westaway

3:45-4:30
Teaching Mathematics Through the Lens of Mental and Emotional Well-Being
Bahaa Monzer
Al Mawakeb School, Al Barsha
Theme: Equity and Inclusion in Mathematics Education

Setting up between workshops: 15 min

4.45- 5:30
Integrating NotebookLM and AI for Enhanced Classroom Teaching in Schools
Reyaz Ahmad
Hamdan Bin Mohammed Smart University
Theme: Innovating Mathematics Pedagogy for the Digital Age

5:30 PM to 6:00 PM **Conclusion/Certificate Collection**