People's Democratic Republic of Algeria
Ministry of National Education
National Institute for Research in Education
Third International Forum of the INRE
On Teaching and Learning Mathematics
(FIINREEAM'2024)
Algiers, Algeria
June 29-30, 2024

Aims and scope

Mathematics, beyond its historical significance, plays a significant role in our contemporary society. In a world marked by rapid technological advancements and global challenges, the significance of mathematics in education is more crucial than ever.

The third international forum of INRE on mathematics teaching and learning aims to delve into the heart of this ongoing revolution by examining global trends influencing how we teach, learn, and apply mathematics. One major trend lies in the rapid evolution of educational programs in this discipline.

Mathematics is no longer confined to abstract equations and formulas; it now encompasses essential 21st-century skills such as computational thinking, solving complex problems, and critical thinking. Educational programs are undergoing changes in order to adjust and cater to the shifting requirements of learners and society as a whole. However, the digitization of mathematical education radically transforms how we approach learning. Online learning platforms, interactive simulations, and data analysis tools provide new perspectives for customizing teaching and improving access to the content of this school subject, technology thus, becomes a powerful ally for educators and learners. The revolution in mathematical education extends beyond technology and programs; it embraces diversity and inclusion to create an educational environment where all learners, regardless of their abilities or perspectives, feel included and valued. This can influence teaching methods, the selection of educational content, and the creation of a learning environment where everyone can succeed. Promoting equity in mathematical education is a priority, involving overcoming barriers that prevent certain groups of learners from accessing quality education. Current trends aim to eliminate these inequalities and create inclusive educational environments where everyone, regardless of their background or specific needs, can excel in mathematics. Research and innovation in mathematical education play a crucial role in this revolution. Research examines how learners understand and assimilate mathematics, evaluates the effectiveness of teaching methods, and explores original approaches to address contemporary educational challenges. Educational innovations rely on evidence to improve the teaching and learning of mathematics. Nevertheless, this period of transformation also brings its share of challenges. Preparing learners for 21st-century skills, ensuring equitable access to quality mathematical education, training teachers to implement innovative teaching practices, and adapting curricula to global educational needs are complex challenges to address.

Objectives

1. Analyse global trends in mathematical education: Examine major developments in curriculum, pedagogy, research, and innovation in mathematics education globally, with an emphasis on the role of history in teaching this subject. This will also include exploring emerging trends in extracurricular activities related to mathematics, such as playful initiatives like "math in jeans" or "math in djellaba," as well as participation in regional, national, and international competitions, including mathematical Olympiads. The goal is to understand how these complementary activities can contribute to a holistic mathematical education, fostering student engagement and stimulating their interest in mathematics.

2. Explore current and future challenges: Identify and discuss crucial challenges faced by educational communities in mathematics, such as preparing for the digital age, diversity and inclusion, equitable access to quality mathematical education, and teacher training.

3. Envision the future of mathematical education: Exchange ideas on potential innovations, educational reforms, and international collaborations needed to shape the future of mathematical education.

4. Share best practices and inspiring successes : Highlight successful initiatives and projects that have had a positive impact on mathematical education globally.

Axes

Axe 1: Global Trends and Complex Challenges in Mathematical Education
- History of mathematics in the teaching of mathematics.
- Teacher training for innovative pedagogical methods.

Axe 2: Roles of digital technology in the teaching and learning of mathematics
- Developing and integrating digital tools for teaching and learning mathematics.
- Extracurricular playful activities in the teaching and learning of mathematics.

Axe 3: Perspectives on Mathematical Education
- International collaborations in the field of mathematical education.
- The future of research in mathematical education.

Axe 4: Sharing Best Practices and Inspiring Successes
- Case studies of successful achievements in educational mathematics.
- Impact of educational policies on the teaching of mathematics.

Methods of submission

We welcome proposals for papers in Arabic, French, or English. Proposals for papers should be accompanied by a title, authors' names and affiliations, an abstract with keywords, and a full text containing the main results within a range of 8 to 12 pages, written in word format. Papers must be submitted in electronic form (Word format) using the following address :

fiinre2024@gmail.com

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Important dates

Deadline for receipt of proposals: April 16, 2024

Notification of acceptance: May 15, 2024

Sending of the forum program: June 02, 2024

Holding of the forum: June 29 and 30, 2024

This international forum aims to be a space for dynamic exchanges, where experts, educators, researchers, and policymakers can share innovative ideas, discuss practical solutions, and envision the future of mathematical education. It aims to catalyse concrete actions to ensure mathematics continues to play a leading role in preparing future generations to tackle the complex challenges of our changing world. We aspire to foster an inclusive, innovative, and future-oriented mathematical education that enables everyone to realize their potential in an increasingly math-skills-oriented society.

« A collaborative work and scientific research environment adapted for success»

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