

COMMISSION INTERNATIONALE POUR L' ÉTUDE ET L' AMÉLIORATION DE L' ENSEIGNEMENT DES MATHÉMATIQUES INTERNATIONAL COMMISSION FOR STUDY AND IMPROVEMENT OF MATHEMATICS EDUCATION

## Report of Activities (07-2012 - 06/2016)

## Preliminary note

The International Commission for the Study and Improvement of Mathematics Teaching (CIEAEM) investigates the actual conditions and the possibilities for the development of mathematics education in order to improve the quality of teaching mathematics. The annual CIEAEM conferences are essential to realize this goal. The conferences are characterized by exchange and discussion of the research work and its realization in practice and by the dialogue between researchers and educators in all domains of practice.

For CIEAEM it is a great honour and a pleasure to be an ICMI Affiliate Organization since 2010.

## Meetings

During this period four meetings have been held in four different countries:

• From 23th to 27th July 2012 in Rhodes, Greece. (CIEAEM 64) The theme of this conference was Mathematics education and democracy: learning and teaching practices.

The conference was co-chaired by Sonia Kafoussi, Chrysanthi Skoumpourdi ans François Kalavasis. The conference theme was explored within four working groups each of them adressing specific questions related to the main theme: (a) Democracy in mathematics curriculum: How does school mathematics contribute to critical thinking and decision-making in the society? (b) Democracy in mathematics classroom practices: What kind of mathematics classroom practices would enact a particular set of humanitarian values (e.g. social justice, respect and dignity)? (c) Democracy in mathematics teacher education. What understandings, values and strategies do teachers need in order to promote

democracy in mathematics classroom? (d) Democracy in research on mathematics education. What are the criteria for a critical assessment of research theories and methodologies?

The Executive

President Uwe Gellert (D)

Vice-Presidents Peter Apelbaum (USA) Fernando Hitt (CA) Luciana Bazzini (I)

Secretary Gilles Aldon (F)

Treasurer Françoise Cerquetti-Aberkane (F)

www.cieaem.org

More than 100 participants discussed the theme and assisted to the four plenaries of Ole Skovsmose (Denmark), Koeno Gravemejijer (The Netherlands), Anna Chronaki (Greece) and Corneille Kazadi (Canada).

Proceedings of the conference has been published in the International Journal for Mathematics Education, special issue, 4, ISSN 1791-6321

• From 22th to 26th July 2013 in Torino (I) CIEAEM 65

The theme of this conference was "Mathematics education in a globalised environment" and the five working groups discussed about (a) Knowledge and competencies. How does one resolve this tension between a global approach, and between mathematical knowledge and a competence-based approach in various countries? (b) Teacher training: what are the challenges in the face of globalization? (c) Reports of mathematics classroom practices (d) ICT, globalization and mathematics education. Is it possible to understand a globalized world without a minimum of ICT culture? And (e) Multiculturalism ans teaching/learning mathematics classroom?

The conference was co-chaired by Luciana Bazzini and Cristina Sabena

About one hundred participants discussed the theme and assisted to the six plenaries of Peter Appelbaum (USA) and Suzan Gerofsky (C), Gail FitzSimons (AUS), Gérard Vergnaud (F) Erich Christian Wittman (D), Nuria Gorgorio (SP) Franco Favilli (I).

Proceedings are published in the Quaderni di ricerca in didattica (Matthematics), 23, 1. ISSN 1592-4424

• From 21th to 25th July 2014, in Lyon (F) CIEAEM 66

The theme of the conference, "Mathematics and realities", covers different aspects linked to the relationships of mathematics and its teaching with other disciplines but also to the questions of logics when performing mathematics. Realities is also technologies allowing to do mathematics in an other way, but also to communicate and to teach and to learn differently. Realities is also, in a globalized world, bringing together other cultures and practices and taking into account the teaching realities in multicultural classrooms.

The 120 participants addressed the questions of the conference through four working groups (a) Mathematics and its teaching in relation to other disciplines (b) Logics when doing (performing) mathematics (c) Realities, technologies and mathematical experiences (d) Multiculturalism and reality

The four plenaries of the conference allow participants to hear from different plenarists coming from different countries: Michèle Artigue (F), Paul Drijvers (NL), Franisek Kurina (Cz), Tamsin Meaney (S) and Alejandro Gonzales-Martin (C).

Proceedings are available in the Quaderni di ricerca in didattica

(Matthematics), 24 - 1, ISSN 1592-4424.

• from 20th to 24th July 2015, in Aosta (I) CIEAEM 67

The theme of the conference of CIEAEM 67 was "Teaching and learning mathematics: resources and obstacles". Teaching and learning mathematics is a complex system, involving a plurality of factors and components, ranging from the epistemology of the discipline to cognitive psychology, socio-cultural environments. affective elements, and technological devices. At the very core of the system, making sense in doing mathematics is widelv considered as a basic requisite for constructing knowledge. In this regard, it is worth analyzing mutual relationships between real objects and mathematical constructions, the role of thinking processes and languages (often related to embodied experiences), and the influence of beliefs and emotions. Four working groups were the core of the conference (a) Mathematical content and curriculum development (b) Teacher education (c) Classroom practices and other learning spaces (d) Cultural, political and social issues.

The 120 participants have made profit of the four plenaries: Gilles Aldon (F), Ornella Robutti (I), Lambrecht Spijkerboer (NL), Teresa Grange (I) and Ferdinado Arzarello (I).

Proceedings are available: Quaderni di ricerca in didattica (Matthematics), 25-2, 2015.

Elections of the Executive of CIEAEM

At CIEAEM 64, Peter Appelbaum was designed as vicepresident in charge of the web site.

At CIEAEM 65, Françoise Cerquetti-Aberkane (F) has been reelected treasurer.

Luciana Bazzini (I) has been elected vicepresident, in charge of conferences

Gilles Aldon (F) : has been elected as secretary of the commission.

At CIEAEM 66, Uwe Gellert has been elected as president of the Commission Fernado Hitt has been elected as vice-president

At CIEAEM 67, Peter Appelbaum (USA) has been re-elected vice-president.

Elections of new members of CIEAEM

At CIEAEM 64, Benedetto Di Paola (I), Javier Diez-Palomar (SP) and Lambrecht Spijkerboer (NL) have been elected as new members of the commission

At CIEAEM 65 Marcelo Bairral (Brazil), Cristina Sabena (Italy), Charola Statopoulou (Greece) were elected as new members of the

commission.

At CIEAEM 66, Ana Serrado Bayes was elected as a new member of the commission.

At CIEAEM 67, Pedro Manual Baptiste Palhares and Younes Aberkane were elected as new members of the commission.

Future meetings

The 68<sup>th</sup> CIEAEM conference will be held in Prague, Czech Republic,  $21^{rd}$  to  $23^{th}$  of July, 2016. The conference will be a restrictive meeting of the CIEAEM commission and will be hosted by Univerzita Karlova v Praze. Michaela Kaslova (Cz) will chair this conference.

The 69th CIEAEM conference is already planed to be held in Berlin (Frei Universität Berlin) in July 2017.

On behalf of the Executive of CIEAEM

Mai 2<sup>nd</sup>, 2016

Gilles Aldon (Secretary – contact: gilles.aldon@ens-lyon.fr)

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