ICMI News 5: August 2008

A Bimonthly Email Newsletter from the ICMI-International Commission on Mathematical Instruction
Editor: Jaime Carvalho e Silva, Dep. Matematica, Universidade de Coimbra, Portugal

CONTENTS

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1. Editorial: Yes, it was worth it!

A Congress like ICME-11 takes at least four years to organize; the budget you need to get is huge, you need to coordinate more than 500 organizers and collaborators, you need to balance a program with more than 500 sessions (and you are not sure all sessions are worth it), the bureaucratic problems involved are sometimes frightening. In brief: you are sure to get hundreds of headaches. Some people say that to organize such a huge congress is not worth it. I say it is worth it, and ICME-11 was worth it. We had very good 9 plenary activities of a quite diverse nature, 7 survey teams presenting interesting new perspectives on very different topics, we had around 50 regular lectures on a huge array of themes, there were more than 60 groups to present and discuss ideas and projects. The International Program Committee carefully choose proposals that offered interesting choices, and the quality of most of the speakers was obvious. Only in a big congress like this you have the opportunity to listen to talks and participate in workshops in such a big number of different themes, with people from very different parts of the world speaking about different aspects of research, personal or national experiences or projects. The diversity of offerings is a big plus.

But the most important aspect was the impact on Latin America. When an ICME congress is organized somewhere you are sure that the people in the region will benefit most and this was no exception. We had 392 participants from Latin American countries when in ICME-10 they were only 72. Even if you subtract the Mexican participants (164) you still get more participants in ICME-11 from Latin American countries (228) than in ICME-10. We had participants from 16 different countries in Latin America: Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Peru, Puerto Rico, Uruguay, Venezuela. We need surely to find ways to get even more countries involved, but this was a good number.

If you add to this the fact that there was also an Ibero American Program in Spanish inside ICME-11, you see that this kind of offering and opportunity is unique. Of course it can be improved. The problem of the language is still not at all solved. It is true that English is the language for international contacts, but a lot of people do not feel comfortable enough to discuss educational topics in English. In a presentation you can always have your slides in English but in a discussion things are more difficult. This must be discussed carefully. A nice example connected to this issue was the final presentation by Bernard Hodgson where he mixed written slides and oral presentation in several different languages.

As a final remark I want to present you the list of the countries with 20 or more registrations. This is an interesting list because it shows the enormous diversity of the countries of origin of most of the participants:

Argentina: 31, Australia: 75, Brazil: 126, Canada: 68, China: 154, Denmark: 35, France: 53, Germany: 44, Israel: 22, Italy: 41, Japan: 73, Mexico: 164, New Zealand: 27, Norway: 20, Portugal: 51, Singapore: 27, South Africa: 36, South Korea: 39, Spain: 45, Sweden: 64, United Kingdom: 92, United States: 412

I have great expectations for ICME-12. I hope we will all meet there.

Jaime Carvalho e Silva, Member-at-large EC ICMI, jaimecs@mat.uc.pt

PS - We have reached 1000 subscribers of our email newsletter. Please keep spreading information about our newsletter so that we reach as many people as possible.

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2. Impressions of ICME-11 (1)

There are two people that attended all the ICME congresses starting with the first one. They are known as "old hands": Jerry Becker (USA) and Claude Gaulin (Canada). Jerry Becker gave us his impression about this 11th ICME.

IMPRESSIONS OF ICME-11

The program was rich, varied and presented much from which to choose. In my judgment, it was an excellent congress and, for me, it ranks among the very best [and I have participated in all of them]. Several years ago Alan Schoenfeld gave a talk which he concluded with a moral, namely, *two theorems*: 1. Mathematics is a living, breathing and exciting discipline of sense-making. 2. Mathematics students will come to see it that way if and only if they experience it that way in their classrooms. A corollary is that virtually all standard classroom instruction needs to be enhanced, or replaced, by instruction in which students grapple with challenging mathematics in intellectually honest ways. This is the frame I carry with me to conferences such as the ICMEs, from which to learn. In addition to the plenaries, I was able to select numerous interesting sessions [and thereby had to eliminate numerous others] that nicely fit around/into that frame: e.g., the Chinese national presentation *and printed materials*, the session on Japanese national assessment [Shizumi Shimizu], the teacher as producer of knowledge [Patricia Sadovsky], the professional development of teacher educators [Jan van Maanen], assessment must be formative [Peter Nystrom] and others. There were other sessions, such as those in my DG, in which the knowledge of the teacher was emphasized as crucial in understanding elementary students' work,

e.g., (1) 9 x 8 = 9 x (11 -8) = 9 x 3 = 27 = 72; (2) 4.8 - 6.2 = (.8 - .2) + (4 - 6) = -2.6 = -2 + .6 = -1.4. The sessions of my TSG were also valuable. I was happy to witness the work of outstanding scholars being recognized in the Freudenthal and Klein awards and to engage in light conversation or give-and-take during the receptions (with excellent snacks and refreshments). Conferees were delighted with the cultural program, their excursions, the transport to and from the university, the large cadre of young, friendly and helpful students (everywhere!) and it was wonderful to enjoy Mexican foods, including along the magnificent downtown river walk. In the Final Program book, Marcela Santillan, Carlos Signoret and Aljandro Diaz Barriga thanked us for coming ... and we need to thank them and their colleagues for organizing and implementing an outstanding congress that was both highly enjoyable and productive, and for having us in their homeland, as well. Now I look forward to the ICME-11 proceedings and to ICME-12 in Korea.

Jerry P. Becker, Dept. of Curriculum & Instruction, Southern Illinois University, Carbondale, IL, USA, jbecker@siu.edu.

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3. Impressions of ICME-11 (2)

We asked two of the four educators that received ICMI Medals at ICME-11 to give us their impressions of ICME-11, the Felix Klein medalist for 2007, Jeremy Kilpatrick, University of Georgia, Athens, GA, USA and the Felix Klein medalist for 2005, Ubiratan D'Ambrosio, Universidade de São Paulo, Brasil.

Impressions of ICME-11, by Jeremy Kilpatrick

The 11th International Congress on Mathematical Education (ICME-11) was very much like all the others I've attended-teeming, sprawling, innovative, eclectic, diverse, uneven, rewarding, intense, exhausting-but probably because it was the first ICME in a Latin American country, it was also lively, vibrant, and colorful. The people at the venue, the Universidad Autónoma de Nuevo León, and in particular the many student guides, could not have been more helpful. Moreover, although I had heard that Monterrey was an ordinary industrialized city that could just as easily be north of the Rio Grande, it was nothing like I expected. Located in a valley surrounded by ruggedly beautiful mountains, the city has a modern subway system, squares and parks filled with sculpture, a lively downtown scene, and many first-rate museums. It may not be Guadalajara or Guanajuato, but it's not Galveston or Gary either.
As to the sessions at the congress itself, I very much enjoyed those I attended, particularly the plenary activities and regular lectures. There were numerous lectures that I heard good things about but could not attend because so many were scheduled at the same time. I especially enjoyed the sessions at which the survey teams reported. Survey teams as a congress feature were begun at ICME 10, where there were five teams. For ICME-11, there were seven-all on new topics. These teams have performed a very useful service to the field, giving a more comprehensive picture of developments in different countries than any one speaker could offer.
I had the privilege of chairing the nominations committee for the 2010-2012 Executive Committee (EC) of the International Commission on Mathematical Instruction (ICMI), and at the ICMI General Assembly in Monterrey, I presented the slate of nominees and announced the results. It was a historic occasion. Previous EC members had been chosen by the General Assembly of the International Mathematical Union, and this was the first time that the ICMI chose its own officers. Special appreciation for this peaceful revolution is due the recent ICMI

EC members, and especially presidents Hyman Bass and Michèle Artigue and secretary-general Bernard Hodgson, for their efforts to help make ICMI a more self-governing organization.

Personnal Reflections on ICME-11, by Ubiratan D'Ambrosio

It is difficult to say something about ICME-11, other than the usual congratulations to the organizers, without mentioning my personal feelings.
I have attended all the ICMEs, since 1976. It has always been very rewarding to meet friends, to listen and to learn about new progresses in mathematics education, and to have the opportunity of telling about my ideas and to benefit from critics.
ICME-11, in Monterrey, was not different, but with some additional emotional features. It was in Latin America. I felt at home, and I am sure this was the feeling of all my colleagues from other Latin America countries. And I received the Felix Klein Medal.
This activated my memories of Karlsruhe, 32 years ago, and of Adelaide, 24 years ago. In ICME 3 I was courageous to propose that reflections about "why teach mathematics?" should emphasize history and sociology. In ICME 5 I was even more courageously when I presented Ethnomathematics. The reactions, in both occasions, were mixed, from completely ignoring my talk to heavy criticism to my proposals. The Felix Klein Award reassured me that Mathematics and Society and Mathematics and Culture, specifically Ethnomathematics, are important research areas in Mathematics Education. The feeling of having contributed to the advancement of these areas is indeed rewarding.
As a personal feeling, I must confess how good I felt when colleagues, both established professionals and younger people in the beginning of their career, valued being in a picture with me. I think it is not vain vanity to feel honored when colleagues from Latin America, and also from the entire World, asked me to pose for a picture with them.
This made me reflect about the value of organizing such big congresses as ICMEs. I am aware that many mathematics educators are critic of ICMEs. The number of participants is very large, with many beginners and without important contributions to the area. Established mathematics educators claim that the opportunity to share ideas with colleagues is minor. Indeed, I met only once, in a rush, some colleagues with whom I had much to discuss. Indeed, compared with a meeting like the recent 100 years of ICMI, in Rome, ICMEs are academically less attractive. But the benefit for the younger teachers, from all over the World, with so many doubts, questions and much professional hopes and dreams, amply justify the investment, in time and resources, in ICMEs. The stimulus resulting from shacking hands and taking a picture with the real researchers, which are the authors of many papers and books they read, is a lifetime experience. I remember when, in the sixties I went to my first ICMs. To meet personally some of the intellectual mentors of my research was an unforgettable experience.
I disagree with colleagues, established researchers, who claim that going to ICMEs is not a worthwhile academic challenge. Academically, I gained much in ICME-11, as in other ICMEs. I was surprised with the amazing presence of technology in mathematics education. Technology is absolutely integrated in the actions of the younger generation. Indeed, it is part of their everyday-life. Also, I was happy to see that mathematics educators are increasingly concerned with the role of mathematics education in facing the challenges and issues of the 21st century. More than improving the teaching of traditional contents, there was a feeling that the mission of mathematics educators is to prepare students to be able to face the challenges and solve the issues of the 21st century, educating students in the various academic disciplines, language, science, social science and mathematics through a cultural history context and an interdisciplinary approach to instruction. I find myself totally identified with this new trend, although sometimes it is difficult to keep pace with the amazing technological innovations. Indeed, participating in ICME-11 was a very rewarding experience.

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4. Impressions of ICME-11 (3)

We asked two first timers to ICMEs to give us their impressions of coming to ICME-11: Ajit Kumar, from the Department of Applied Mathematics, Institute of Chemical Technology, University of Mumbai, India and David F Hervas, Departamento de Matemáticas, Universidad San Francisco de Quito, Quito - Ecuador who was also the representative from Ecuador in the ICMI General Assembly.

First timer: Ajit Kumar, UICT, Mumbai, India, ajit72@gmail.com

I attended the ICME for the first time and it was really a wonderful experience for me. I was really astonished to see the intensity and enormity of the event. Academically, it was very well organized and structured properly. Most of the regular lectures were quite good, though there is a room of improvements. This congress gives a platform for people from different countries to meet, discuss and exchange their ideas. In this regards, TDG's and DG's are really wonderful and most important activities of the conference. At least, I benefited a lot from two activities. There were so many good and interesting talks/topics at the same time that it was difficult to decide which one to skip. In my opinion there should have been more stalls of different mathematical models and school/college kids from the host country should be invited to have look at them. The local organizing committee should encourage such activities. Bringing out ICMI news bulletin is a wonderful idea and it should have been done long back. ICME proceeding should also be brought out as soon as possible so that many people who could not attend the conference will have access to its contents. I also believe that there should be more participation of working mathematicians in the congress so that one can have healthy interaction between the math educators and mathematicians. This will help in improving the standards of mathematics education at large. I was also very impressed to see the booklet on "Mathematics Education in United States", which was distributed to the participants. I think, more countries can follow this suit, so that others can learn from them. Monterrey with its rich infrastructure and natural beauty was a good choice to hold the ICME-11 and we must congratulate the IPC for their choice. The local arrangements were quite good, but still there was some room of improvements, especially communication was little poor. Thus as a first timer in ICME, I can say that it was very fruitful and enjoyable and hope this is just a beginning for me.

First timer: David F Hervas, Universidad San Francisco de Quito, Quito - Ecuador, dhervas@usfq.edu.ec

A few words about my wonderful experience attending ICMI GA and ICME-11
My name is David Hervas. I am a mathematician from Ecuador involved in teaching at Universidad San Francisco de Quito, a small and wonderful Liberal Arts College. I am deeply concerned about the current status of the teaching of mathematics in public schools in my country which is in a very bad shape in need of help. My compromise with teaching and learning of mathematics lead me to know and learn about ICMI and ICME. I was happy to get an invitation to come for the first time to a general assembly of ICMI as a representative from my country. Ecuador was admitted as an associate member of IMU in 2006 and we are trying to give shape to our mathematical environment so that we can acquire full membership in the next

six to eight years. I didn't know exactly what to expect in this general assembly and I had a slightly better idea about ICME since I have been in a few math conferences before but never in such a big one.
I showed up in the meeting room a few minutes earlier just to see and get acquainted with the environment. I could sense immediately that the air was full of friendship and curiosity since all of us came from different countries. I felt very welcome and I thank the ICMI EC and all the participants who helped me to overcome my shyness for such event. Along the day and the week I thought I was attending a festival about brotherhood of the human race through mathematics. I was so inspired for so many people I met but I prefer not to mention names because I don't want to leave anybody out. I just want to share that I was overwhelmed to be there present when Ubiratan D'Ambrosio received The Felix Klein Medal. I may have forgotten his words but his ideas are still in the air through his question "How Mathematics Education can help in shaping a better World?"
I was excited to learn about The ICMI Studies and the new projects lunched by ICMI. I learnt so much and I feel fascinated that 100 years ago Felix Klein was the first president of ICMI and now his famous book wants to take a different shape through a new project for the 21st century.
Just to keep it short I want to thank Bernard Hodgson and Carlos Signoret who made my participation possible and Jaime Carvalho e Silva who asked me to write a few lines about my experience in Monterrey, México.

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5. New Executive Committee of ICMI for 2010-2012

A new Executive Committee of the ICMI-International Commission on Mathematical Instruction, was elected at the ICMI General Assembly held July 6 in Monterrey, México.
ICMI is an official commission of IMU and till now the election was held at the General Assemblies of IMU. It was the first time that the ICMI General Assembly elected the Executive Committee of ICMI; this was decided by the IMU General Assembly held in Santiago de Compostela, August 12-13, 2006.
The procedure for the elections began with the creation of a Nominating Committee, chosen according to the regulations adopted by the same IMU General Assembly of Santiago de Compostela:
http://www.mathunion.org/organization/ec/procedures-for-election/
The ICMI Nominating Committee was chaired by Jeremy Kilpatrick (USA) and included also Michèle Artigue (France), László Lovász (Hungary), Attia Ashour (Egypt), Lee Peng Yee (Singapore), Elon Lima (Brazil) and Evgenia Sendova (Bulgaria).
The slate proposed to the General Assembly included one candidate for each of the officers and seven candidates for Members at large. The ICMI General Assembly could propose other candidates under certain conditions described in the regulations.
The members of the 2010-2012 ICMI EC, with the various positions held, according to the results of the elections, are:

PRESIDENT:
William (Bill) Barton (New Zealand)
SECRETARY-GENERAL:
Jaime Carvalho e Silva (Portugal)
VICE-PRESIDENTS:
Mina Teicher (Israel)
Angel Ruiz (Costa Rica)

MEMBERS AT LARGE:
Mariolina Bartolini Bussi (Italy)
Sung Je Cho (Korea)
Roger Howe (USA)
Renuka Vithal (South Africa)
Zhang Yingbo (China)

The term of this next EC will start on January 1, 2010.

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6. The Proceedings of ICME-10 have now been published

It was announced by the organizers, Elin Emborg, Morten Blomhøj, Henrik Nielsen, and Mogens Niss, that the Proceedings of ICME-10 have finally been completed. It consists of a book and a CD. Every registered participant in ICME-10 is entitled to receive a printed copy of the Proceedings, including the CD. Moreover, the entire Proceedings are available on the web at www.icme10.dk

The 559 pages book contains texts of
* the Opening and Closing Ceremonies,
* the eight Plenary Activities, including the Plenary Lectures delivered at the Congress,
* the lectures based on the work of the five so-called Survey Teams,
* lectures by the first two recipients of the ICMI Awards
- the Felix Klein Medal (Guy Brousseau)
- the Hans Freudenthal Medal (Celia Hoyles),
* reports of the five themes of the so-called Thematic Afternoon,
* reports of the 29 Topic Study Groups and
* reports of the 24 Discussion Groups

The CD contains the ICME-10 Proceedings as a single file and as separate files.
Furthermore, the CD also contains 64 papers based on 64 of the 74
Regular Lectures given at ICME-10.

As quite some time has passed since the post address of the participants was registered, and as no one would benefit from the organizers sending the Proceedings to a wrong address, every ICME-10 participant is asked to notify the organizers of the post address to which he or she prefers a copy of the Proceedings be sent (also if it hasn't changed since ICME-10).

This is a prerequisite for receiving the printed version cum CD.

The post address should be entered in the form that you find at the web page
https://secure.ccconsult.com/icme2004/

Please expect three to four weeks for delivery. The service of sending out printed copies of the proceedings would be running until November 1, so please make your request before this date.

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7. WFMC welcomes you!

World Federation of National Mathematics Competitions
An Affiliated Study Group of the International Commission on Mathematical Instruction

The World Federation of National Mathematics Competitions (WFNMC) appeared as a natural response to the need of international collaboration in the field of Mathematics Competitions and other related activities. It was initiated by Peter O'Halloran and officially founded in 1984 during the fifth International Congress on Mathematical Education (ICME 5) held in Adelaide, Australia. WFNMC became an Affiliated Study Group of ICMI in 1994. The major activities of the Federation are:

o Regular conduction of a Conference (every even-numbered year after ICME);
o Recognition (trough the Federation Award "Paul Erdös") of persons with outstanding achievements in detection, motivation and development of mathematically talented young people. The Paul Erdös Award is given every even numbered year.
o Publication (twice yearly) of the Journal "Mathematics Competitions" and continuous development and maintenance of the web-site of the Federation;
o Participation in activities initiated and supported by other organizations;
o Participation in Discussion Groups and Topic Study Groups at ICME's.

WFNMC operates on the basis of a Constitution which was first accepted in 1996 and slightly amended in 2004 and 2008. The name of the Federation leaves the impression that its major goals are related to competitions only. To some extent, this might have been the case in the earlier stages of development of the Federation. Today its activities are in accordance with the "Policy Statement on Competitions and Mathematics Education" approved in 2002:
"The scope of activities of interest to the WFNMC, although centered on competitions for students of all levels (primary, secondary and tertiary), is much broader than the competitions themselves. The WFNMC aims to provide a vehicle for educators to exchange information on a number of activities related to mathematics and mathematics learning.
More information about the history of the Federation, its activities, its Executive Bodies and officers could be obtained from the official site of the organization:
http://www.amt.canberra.edu.au/wfnmc.html
Petar S. Kenderov, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, vorednek@yahoo.com

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8. PUBLIMATH - Bibliographical database on mathematics education

http://publimath.irem.univ-mrs.fr/

PUBLIMATH is a bibliographical database for mathematics teaching written in French, which has been developed by the APMEP (French association of mathematics teachers) and the ADIREM (committee of the directors of IREMs that are Institutes of Research into Mathematics Teaching. The development started in 1996, with the support of the CFEM (French commission on Mathematics Education) and of the ARDM (Association for research in mathematics didactics).
Access to PUBLIMATH on Internet is free and PUBLIMATH offers a set of short reviews about publications related to mathematics teaching, which can be useful for teachers from nursery school to university, for students, teachers, teacher educators and researchers, research workers…
PUBLIMATH is half way between a classical documentary base (author, title and library information conforming to international cataloguing standards) and a base of contents with on-line information. The specificities and major assets of PUBLIMATH are, on the one hand the informative summary, and on the other hand the keywords or key sentences. The summaries, keywords and key sentences are written and chosen by field specialists.
PUBLIMATH offers notes about various publications (books, software, papers from scientific journals, videos, websites, etc.). The review of each publication contains an analysis carried out by members of all contributing associations.
PUBLIMATH also allows users to discover documents that cannot be found in the usual editing networks, about various fields: teaching, didactics, history, culture, arts and entertainment…
PUBLIMATH allows users to consult
- the contents of scientific journals: Bulletin Vert de l'APMEP, Repères-IREM, l'Ouvert, Petit Vert, Hypercube, Grand N, Petit x, RDM, Mathématiques et Pédagogie, etc.;
- references to books and papers linked to one or more keywords of the base;
- the list of publications of IREMs or inter-IREM committees, of the APMEP, of the ARDM...
PUBLIMATH includes more than 8,600 forms (since the end of July 2008). Further information in English, German, Portuguese, Italian or Spanish is added to some notes.
PUBLIMATH offers access to a glossary (721 definitions in May 2008). These definitions can be consulted from the general keywords or key sentences list, from a specific alphabetical list or using fields (17 fields have been listed).

Michèle Bechler, responsable CII-APMEP PUBLIMATH, Michele.Bechler@ac-nancy-metz.fr

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9. The 1000th subscriber to ICMI News

Charlotte Bouckaert was the 1000th person to subscribe to the ICMI newsletter, ICMI News. So we asked her some questions to know a little bit more about this 1000th subscriber.

Where are you from?
I am from Belgium. I work at the "Unité de Recherche sur l'Enseignement des Mathématiques" of the Université Libre de Bruxelles.
I am a secondary school math teacher and teacher trainer and I am in charge of the website of our unit

How did you hear about ICMI?
I went to the ICME 10 Congress in Copenhagen, Denmark, where I heard about ICMI for the first time

Were you in ICME-11 in Monterrey? Do you intend to go to ICME-12 in South Korea?
I was not in Monterrey and I don't plan to go to South Korea.
However, I want to publicize the ICME congress among my fellow teachers.
Very few ever heard about it.

What do you expect of ICMI and ICMI News?
I have never seen any ICMI newsletter

Why did you subscribe to ICMI News?
Because I want to inform my fellow teachers of the ICMI publications

How did you hear about ICMI News?
Just by surfing

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10. Calendar of Events of Interest to the ICMI Community

4th European Workshop on Mathematical & Scientific e-Contents
Trondheim, Norway, September 11-13, 2008,
http://www.ntnu.no/delta/workshop/

TIME-2008: Technology and its Integration in Mathematics Education
Tshwane Univ. of Tech., Buffelspoort, South Africa, September 22-26, 2008
http://time.tut.ac.za/

41st Korean National Meeting of Mathematics Education
Donguei National University, Korea, October 31 - November 1, 2008
yhchoe1940@yahoo.co.kr

ATCM-13: 13th Asian Technology Conference in Mathematics
Bangkok, Thailand, December 15-19, 2008
http://atcm.mathandtech.org

3rd international conference to review research on Science, TEchnology and Mathematics Education
Homi Bhabha Centre for Science Education (TIFR), Mumbai, India, January 5-9, 2009
http://web.gnowledge.org/episteme3/

CERME 6: Sixth Conference organised by the European Society for Research in Mathematics Education
University Lyon 1, France, January 27 - February 1, 2009
http://ermeweb.free.fr/cerme6.php

5th Asian Mathematical Conference
Putra World Trade Centre, Kuala Lumpur, Malaysia, June 22 - 26, 2009

http://math.usm.my/amc2009/

ICTMT-9 - 9th Int Conf on Technology in Mathematics Teaching
Metz, France, July 4-8, 2009
http://www.ictmt9.org

"Models in Developing Mathematics Education"
The Mathematics Education into the 21st Century Project
Dresden, Saxony, Germany, September 11-17, 2009
alan@rogerson.pol.pl

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11. Historical vignettes: The unexpected fate of a mathematics curriculum

From 1976 until 1994, the Ministry of Education of Colombia carried out a long, detailed and systematic process of curricular development that straddled six presidential periods.
It started with Peace Corps, OAS and Unesco advisors in 1976, 13 years after the last change in the Country's primary school curriculum in 1963.
The Colombian primary school comprises five grades, from 7 to 12 years of age. In a strange terminological reversal, the four-year Secondary School starts at the 6th grade and the two-year Middle School at the 10th. Compulsory basic education consists of the 9 grades of Primary and Secondary School.
The Ministry of Education asked the National University to appoint a Mathematics professor to advise the team of teachers and educators in charge of designing the new syllabus, of writing detailed teachers' handbooks, and of designing and conducting teacher training, experimental trials and evaluations of the new curriculum.
The initial advisor was Dr. Carlo Federici, an Italian mathematician and physicist who had been teaching in Colombia since 1948. He retired in 1978, and I was appointed to succeed him in this difficult advisory post. A first draft of the syllabus for the first five grades had been agreed upon, and pilot experiments and evaluations were advancing in
a few schools in each province. It followed the then standard format of behavioral Educational Technology and Instructional Design.
My first task was to review the draft from a more cognitive perspective, inspired mainly by Piagetian ideas and authors like Dienes, Papy and Labinowicz. After heated discussions with critical intellectuals and the National Federation of Teachers' Unions, another full revision of the draft and a careful spelling out of the pedagogical and psychological basis of the new curriculum was undertaken.
My second task was to convince the successive ministers of education that the new Primary School syllabus should not be mandated by decree to be implemented in the first five grades simultaneously, but to precede the decree with widespread teacher training, publication of official handbooks by the Ministry and corresponding textbooks developed by private publishing houses, and then to mandate only gradual implementation one grade at a time. Fortunately, Decree 1002 of 1984 came out as I had suggested, and gradual implementation of the Primary School curriculum started.
In 1985-86 I spent a year at the Harvard Graduate School of Education, preparing materials for the Secondary School curriculum and writing a detailed book on the theory of Mathematics Education that had provided a foundation for the new curriculum. When I came back to Bogota, my team developed pilot materials for the four grades, from the 6th to the 9th. Test trials for those materials were carried out, also grade by grade, as well as many teachers' workshops to

prepare them for the respective decree implementing the new Secondary School curriculum. Test trials were supposed to finish in 1993, to officially adopt the Secondary School curriculum by a new decree during that year 1994, in order to start full implementation in the 6th grade in 1995.
Simultaneously, during those years, a silent and well-executed campaign was going on. After a drastic change in the Colombian Constitution in 1991, the more and more powerful National Federation of Teachers' Unions and their academic advisors started contacting congressmen of both Houses to persuade them that a unique central curriculum was unconstitutional, antidemocratic and discriminatory, and that it would be better for Colombian education to grant curricular autonomy to every school, encourage it to develop its own educational project, and then develop its own curriculum according to the particular educational project.
The campaign was successful. Colombia became the first (and to my knowledge the only) country in Latin America to deprive the Ministry of Education of its curricular power. Law 115 of February 14, 1994, suddenly stopped the long and massive-but slow-train of the curriculum reform process that had been going on for 18 years, the equivalent of two years for each grade, after an estimated total cost of 9 million euros. The book on the theory of Mathematics Education used as the basis of the new curriculum was never published, and the full syllabus with its detailed teachers' handbooks was never implemented.
Carlos E. Vasco (Universidad Distrital, Bogotá, Colombia), Carlos_Vasco@pz.harvard.edu

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12. SUBSCRIBING TO ICMI News

There are two ways of subscribing to ICMI News:

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2. Send an e-mail to mailto:icmi-news-request@mathunion.org with the Subject-line:
Subject: subscribe

In both cases you will get an e-mail to confirm your subscription so that misuse will be minimized. ICMI will not use the list of ICMI News addresses for any purpose other than sending ICMI News, and will not make it available to others.

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http://www.mathunion.org/pipermail/icmi-news