



# PME NEWSLETTER

March/April 2012

## Opportunities to Learn in Mathematics Education...

Message from PME President João Filipe Matos



I was having coffee one evening last week when I realized that my last Turkish Delight box was empty... well it was last summer that our colleagues received us at Ankara for a stimulating and very

well organized conference. Thanks again Behiye Ubuz for the wonderful hospitality!

And immediately my thinking went to the next PME conference and I tried to make an exercise of imagination anticipating PME 36 opening in Taipei and meeting again many good friends and colleagues in a rather different culture and climate. Tai-Yih and his colleagues are working hard creating the scenario for PME 36 conference and I am sure that it will be a great event taking place immediately before ICME 12 in Korea.

The theme for the conference – Opportunities to Learn in Mathematics Education – will be addressed from several perspectives both in the plenary and panel sessions as it

accommodates a variety of dimensions involved in the learning and teaching of mathematics.

Creating (relevant) opportunities to learn means to have qualified partners in learning, to have appropriate resources, to have up-to-date and quality learning materials and to have enough time to engage with ideas and make steps towards new ideas and new knowledge. This implies to act as a learner. In this sense I believe that PME 36 will create many opportunities to learn in mathematics education.

A final comment. More than a year ago I wrote in my message to the PME membership that, as educators, we should adopt a critical optimism positioning towards the social situation in many countries accepting the premise that mathematics education may play a prominent role in promoting social development if taken in conjunction with other political measures and action. One year after, I want to stress that, although the social situation in many countries around the world is not really inviting celebration, we as educators have the tools and knowledge to contribute to a significant change creating opportunities to learn what a different and more equitable world could look like.

## PME Message from the Editors

Welcome to our Newsletter of March/April 2012! It's been difficult getting this issue out and we thank you for your patience and support.

In this issue of the Newsletter we include contributions that look to the past with reflections on PME 35 in Ankara Turkey and to the future with reflections on experiences in host city for PME 36, Taipei. We also share IC Portfolio Group activities and issues presented to the PME community for discussion and consideration.

This issue features a research highlight by Susan Gerofsky, Canada on her exciting interdisciplinary work that draws upon gesture theory, performance theory and mathematics in the garden. We hope you enjoy this issue.

Our May/June 2012 issue will feature more PME 36 conference highlights: people, places, and PME.

Cynthia Nicol <[cynthia.nicol@ubc.ca](mailto:cynthia.nicol@ubc.ca)>; Silvia Alatorre <[alatorre.silvia@gmail.com](mailto:alatorre.silvia@gmail.com)>  
Cristina Frade, <[frade.cristina@gmail.com](mailto:frade.cristina@gmail.com)>; – Editors of PME Newsletter



| Inside this Issue                               |    |
|---|----|
| PME 35 Ankara: Hitite Sun Eikon                 | 2  |
| PME Charity Status                              | 4  |
| PME Plenary Guidelines: Revision?               | 5  |
| Research Highlights: Susan Gerofsky, Canada     | 6  |
| PME IC Portfolio Activities                     | 8  |
| Experiencing Taipei Taiwan: Host city of PME 36 | 10 |
| Conferences                                     | 11 |

## Behiye Ubuz

Program Chair for PME 35 reflects on the experience of hosting PME Ankara Turkey.



PME 35 July 2011 opened with an address by Program Chair Behiye Ubuz of Middle East Technical University, Ankara Turkey. The following is an adaptation of her opening remarks.

When I first became the PME member in 1994, it was a quite distant dream for me to see PME conference being organized in Turkey. Because I was the only Turkish participant at PME and mathematics education in Turkey was unfortunately not developed enough to make this dream come true in the sense of academic staff and the broadness of research in this area. After all those years, mathematics education in Turkey developed continuously and it is clear that it will continue to develop in a positive and satisfying way. Now we have the honor of hosting PME conference in Turkey which is one of the most prestigious and reputable events in mathematics education.

How did these dream come into reality. For this first I need to thank Joao Pedro de Ponte. In 2005 at the ICMI conference in Brazil during a talk between me and him, he said it would be nice to see PME conference held in Turkey and asked me what I thought about this idea? When I heard these words, I went restless about it and then I approached to the president of PME of the time, Chris Breen. The idea was welcomed by him and that enabled this particular gathering to take place in Turkey. It was also highly important that the proposal of Turkey was welcomed by the International Committee.

The theme of the conference was “Developing Mathematical Thinking”. I chose to use this theme as

a reference to Hitite Sun Eikon which is used as the logo of PME 35. The figure here represents the sun. As we all know sun is at the center of the solar system just like mathematics constitutes the basis for several disciplines. Mathematics as the study of quantity, structure, space, and change (i.e. arithmetic, algebra, geometry, and analysis) is used throughout the world as an essential tool in many fields, including natural science, engineering, medicine, and the social sciences. To the top of some Hitite Sun Eik-



ons, little bird and tree figures are attached. These figures represent the life and fertility sunlight brings to the earth. Our nature is dependent on sunlight and through photosynthesis; air, food and a livable world is

delivered and this way new generations can evolve. Mathematics possesses the importance of the sunlight in the broad world of science. Thanks to mathematics, countless fields have evolved and grown rapidly throughout the history. Taking the importance and undeniable place of mathematics into consideration, Turkey and all other countries now consider developing mathematical thinking as the main issue in Mathematics Education.

## Behiye Ubuz reflects con't....

In addition to fertility symbols on the Sun Eikon, you may also see deer symbols attached as a representation of peace. And my dear colleagues, these figures reminded me of a very important aspect at the first sight. For years we have been gathering together in order to carry our discipline to further dimensions, we get to know each others more closely and start feeling ourselves like a part of this huge family which has devoted itself to the world of mathematics education. Most importantly we have chances to visit each other's countries and get more familiar and close to our cultures and PME's provide us with a chance to demolish our prejudices and become a real family.

Now, I want to thank president of PME, Prof. Dr. Joao Filipe Matos, the Secretary of PME, Prof. Dr. Laurie Edwards, and Project Manager of PME Prof. Dr. Bettina Roesken, for being with me and giving me their valuable support all through this journey.

*[PME gives us] chances to visit each other's countries and get more familiar and close to our cultures.*

I also would like to offer my special thanks to the secretary of PME35 Meriç Özgeldi, technical officer Davut Çavdar and Esra Balgalmış for staying with me and helping me all those long working hours. I am really deeply grateful to them. I shouldn't forget to thank the others whose names I cannot list right now, for supporting me and offering their help. Last but not least, I want to stress that I am very grateful to all the PME35 participants for their valuable contribution for the success of PME35.

While accomplishing the task of hosting the PME conference, I worked very long hours. However, the opportunity of seeing such a distinguished society, precious mathematics educators in Turkey was above all the exhaustion and long-term efforts. I hope that PME35 will take place in your memories as an unforgettable event.

---

## Science, Technology and Mathematics Education (STME) Conference

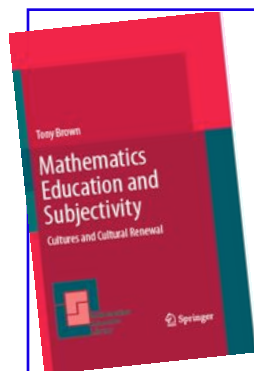
January 7 – 11 2013 Mumbai India

Call for papers ends May 15 2012

The Conference, epiSTEME-5, is the fifth in a series of biennial conferences aimed at reviewing research conducted world-wide in science, technology and mathematics education. It is being organised by the Homi Bhabha Centre for Science Education, a National Centre of the Tata Institute of Fundamental Research, Mumbai, India.

Science, technology and mathematics education (STME) have, in recent decades, emerged as lively new research areas. This research, inspired by issues of learning and teaching, has clear uniting themes in the cognitive, pedagogical, historical, philosophical and socio-cultural aspects of the sciences. The epiSTEME conferences occupy a unique position among conferences and bring together researchers in these foundational areas as well as from the domains of science, design and technology and mathematics education. Conference epiSTEME-5 continues this tradition of interdisciplinary exchange.

<http://episteme5.hbcse.tifr.res.in/index.php/episteme5/5>



## New Book! Just Released!

**Mathematics Education and Subjectivity: Cultures and Cultural Renewal**  
Tony Brown (2011)

Examines how some linguistic and socio-cultural locations link to prevalent conceptions of mathematics education. The book introduces cutting edge theories of subjectivity that trouble more familiar psychological theories of "humans" apprehending mathematical "concepts". Published by Springer ISBN: 978-94-007-1738-1. <http://www.springer.com>

# PME Charity Status and the PME Constitution

by PME International Committee Members

At the 2011 AGM, the PME IC explained that steps are being taken to register the IGPME as a charity organisation. Until now, PME has not had any legal status, and in recent years this has created problems to do with accessing and transferring PME funds. For example, we cannot set up a PayPal account for the organization, and we must pay taxes (sometimes substantial) on any funds transferred between countries. For these reasons, an application for charity status is being prepared for submission to the Charity Commission of England and Wales. If this legal status is achieved, PME may also apply to the UK Revenue department for recognition as a tax-exempt organisation.

An application to register as a charity is not necessarily successful. In particular, the organisation must demonstrate that it meets a “public benefit”

test, but even before that, the organisation must declare that its affairs are “governed by the laws of England and Wales”. This is so that the trustees of the charity can be held to account if they (or those who act on their behalf) offend against its charitable purposes. Normally the governing law would be stated in the constitution of the association. Since this is not the case for PME, the current application could fail. With this possibility in mind, we shall propose at the 2012 AGM that a clause be added to the PME constitution affirming that it is governed by the laws of England and Wales. We wish to assure PME members that this constitutional amendment would have no effect on our scientific and social life as an organisation. On the other hand, it would permit the organization to manage its financial affairs in a more

effective way, and, in the unlikely event of any problems in this area, there would be clear regulations in force.

Following discussion of the issue in Taiwan, a vote will be taken at the 2013 AGM. If the amendment is accepted, we would then be better placed to re-apply for charity status later in 2013. A forum for online comment and discussion of this topic will be announced in advance of the conference in Taiwan.

João Filipe Matos, President  
 Tim Rowland, Vice President  
 Laurie Edwards, Secretary  
 Marianna Tzekaki, Treasurer



PME IC Members at PME 35 Ankara Turkey

Bettina Dahl Søndergaard, Tai-Yih Tso, Tim Rowland, Leonor Santos, Marj Horne, Bat-sheva Illany, Samuele Antonini, Jeongsuk Pang, Aiso Heinze, Joao Filipe Matos, Stefan Ufer, Olimpia Figueras, Marianna Tzekakis, Silvia Alatorre, Guri Nortvedt and Laurie Edwards.  
 Missing are IC members: Alena Hospesová and Marcia Pinto.  
 Included are previous IC members: Aiso Heinze, Olimpia Figueras and Bat-Sheva Ilany

# PME Plenary Guidelines: In need of revision?

by PME IC Vice President's Portfolio Group

In response to some comments by members, the PME IC wants to create an opportunity to discuss the rules concerning PME plenary addresses. Under the current rules, a person can usually give only one plenary in her/his lifetime and, additionally, participate in one plenary panel. Moreover, a president of PME may give a (possibly additional) plenary at the end of her/his term of office.

By opening the debate, we do not mean to suggest that the existing plenary regulations require reform. A decision will be taken after several issues have been considered by PME members. The key question for discussion with the membership is this:

What are the implications of the current PME policy (allowing researchers to give only one plenary) in terms of quality and/or diversity for PME conferences? Should we make exceptions for particular researchers?

It would be useful to collect arguments for and against the existing "Once in a life" Plenary Regulation.

For example, an argument in favour of change could be that a person may be in a position to communicate interesting and new ideas from her/his own research to the PME community more than once in their life. To allow some time to pass after the first plenary, one option might be to put a year restriction (for example, only once in any 10 years) on plenary participation.

On the other hand, the current regulation is meant to foster inclusion and diversity, so that more people have to opportunity to give a plenary address. We could keep the "Once in a life" policy to include more plenaryists from different countries and theoretical traditions.

As a 'middle way', the current regulation could determine the usual practice, but it could be 'broken' in very exceptional situations, but these would require justification in advance. For example, it could be decided that conference organizers would have to apply to the IC if they wished to include a speaker for a second time: in this case the justification should include a description of the new ideas developed by the speaker since the last plenary, and means taken by the organizers to ensure inclusion across the program as a whole.

Therefore, the IC invites all members of PME to contribute their opinions and ideas to the "Plenary regulation – Path to AGM" forum on the PME website during the coming weeks. PME thrives on the engagement of its members, so let us know what you think!

PME IC Vice President's Portfolio Group: Tim Rowland, UK (vice president); Jeongsuk Pang, Korea; Núria Planas, Spain; and Stefan Ufer, Germany.



## Development of Mathematical Discourse - Some insights from communicational research Special Issue of *International Journal for Educational Research*, edited by Anna Sfard (Volumes 51-52, p. 1-158)

Quite diverse in their foci and specific themes, the seven articles collected in this double special issue are unified by their common conceptual framework. Grounded in the premise that mathematics can be viewed as a discourse, the communicational approach provides a unified set of conceptual tools with which to investigate cognitive, affective and social aspects of mathematics learning. The specific topics explored by the different authors include the development of geometric and algebraic thinking, dependence of mathematics on language, fidelity of curricular implementation, interactions within collaborative groups, and the impact of emotions on mathematics learning. The findings combine together to produce a set of insights, some of which go against widespread beliefs about teaching and learning mathematics. Full corpora of data from the different studies are posted on the web, allowing the readers to follow analyses offered by the authors, attempt their own interpretations, and use the volume for teaching and learning. <http://www.sciencedirect.com/science/journal/08830355>

# Graphs, Gestures and Mathematics in the Garden

*invited contribution by Susan Gerofsky*  
University of British Columbia, Canada



I come to Mathematics Education research with a strong theoretical and practical background in a number of fields: languages, applied linguistics, curriculum studies, film production, music, postmodern, media and literary theory, as well as mathematics and mathematics teaching. I love mathematics education as a field that welcomes a very broad range of approaches, and allows us to focus these big theoretical constructs on the very specific issues of the teaching and learning of mathematics.

The methodologies I embrace and the intellectual communities I belong to tend to be heterogenous and interdisciplinary in themselves. I work in the following ‘interdisciplines’:

- *genre studies*,
- *gesture studies*,
- *embodied and arts-infused learning*,
- and
- *performance theory*.

My work in mathematics education started with genre studies of the ‘pedagogical genres’ of mathematics education. I have worked on genre analyses of: mathematical word problems, first-year calculus lectures, graphing on the Cartesian plane, worksheets, and question-and-answer interchanges in mathematics classes. This genre research is aimed at uncovering new and unexpected relationships between pedagogy and its cultural contexts, with the goal of reframing and improving teaching and learning.

I am now involved in two research projects that share a concern with embodied, multisensory, multimodal ways of

learning and knowing, but in very different contexts.

The first, the Graphs & Gestures project, starts from the premise that it is possible (and perhaps advisable) to begin the study of mathematical functions from embodied knowledge and experience of the graphs of those functions, and then later moving to algebraic, numeric and other representations.

This line of inquiry started from my observations of teachers’ and students’ gestures in showing the shapes of the graphs of functions. I noticed that when people used their arms and hands to gesture the shapes of graphs, there was an implied placement of the x- and y-axes with relation to the gesturer’s body. I wondered why some people placed the x-axis high on the body (at throat or nose level) while others place the x-axis lower, at heart, navel or hip level.

Pilot studies showed that differences in gestures did connect with differences in mathematical engagement and understanding. Engaging the spine or not, eye-tracking or not, and the placement of the x-axis high or low related to the differences between identifying with the graph or holding it at a distance from oneself. In terms from the field of gesture studies, particularly in David McNeill’s work, this was the difference between taking the ‘character viewpoint’ and ‘observer viewpoint’. Research participants talked about the differences between ‘seeing the graph’ and ‘being the graph’. Those who were able to imaginatively ‘be the graph’ in the pilot studies were consistently evaluated by their mathematics teachers as dem-

onstrating a deeper mathematical understanding.

Ongoing work developed from this pilot study aims to develop mathematical pedagogies using the idea of full-bodied, imaginative engagement and identification to help all students work towards deeper mathematical understanding, particularly with regard to mathematical functions and their graphs. This research has now involved work with learners aged 11 to 14 years old, in classes for gifted, reluctant and dyslexic mathematics learners. I collaborate with experienced choreographer and literacy researcher, Dr. Kathryn Ricketts. We have explored embodied mathematics pedagogies that include elements of dance, sport, drama, visual arts and music. In one surprising result, we found that students get great benefit from vocalizing sounds that focus attention on salient mathematical features of graphs (for example, roots, extrema and intersections with lines of reflection), and that perhaps sound is as important as gesture and physical movement as a mode of drawing attention to mathematical patterns.

In our research, we’ve found that vocal sounds and full-body gestures can become cognitive resources that help kids notice, remember and reconstruct mathematical patterns related to functions – for example, the degree and number of possible roots and extrema of polynomial functions, or the graph of the absolute value of a given function. Learners were able to develop an embodied understanding of these topics at an early age, years before they were fluent users of algebra, and before they

## Susan Gerofsky continued....

were able to work with the algebra of functions.

We suggest that early embodied, multisensory engagement with very specific mathematical patterns can help learners (literally) ‘make sense’ of the algebraic and numerical patterns learned later. What is more, the resonance or oscillation between embodied and symbolic ways of knowing offers a much richer complex of representations for understanding than symbolic ways alone. That is, bodily, sensory experiences of pattern are not ‘primitives’ to be discarded once ‘sophisticated’ symbolic modes are adopted. Rather, it is the interplay between embodied and symbolic representations that constitutes a lively mathematical sophistication.

The Graphs & Gestures project is now moving into new areas of sonification, visualization and work with gesture and movement in the theory and pedagogy of mathematics learning. Thinking about the senses has led our team of researchers to work with mathematics students who have visual and auditory difficulties – not only in terms of offering better mathematics pedagogy for special education, but also as a way of developing better multisensory pedagogies for all students. Our explorations include the use of haptic (tangible) human-computer interfaces, including variations on movement-tracking systems like Kinect and Wii, and the connection of these gestural/ movement interfaces with sonic and visual representations of graphs.

I am working closely with co-investigators and collaborators in Canada and Brazil who are familiar PME contributors: Drs. Nathalie Sinclair, Lulu Healy and Solange Fernandes; Drs. George Gadanidis and Marcelo

Borba (on earlier iterations of the project); and newer arrivals to the PME scene, Dr. Kathryn Ricketts, computer scientists Drs. Alissa Antle, Karon McLean, and doctoral candidates Steven Khan and Greg Corness.

The second research project I am involved with is the Orchard Garden Outdoor Classroom project at my university. This is a project that deals with embodied learning, environmental education and teacher education more generally, as well as with mathematics education.

The Orchard Garden is a large teaching and learning garden or outdoor classroom, being developed collaboratively by the Faculty of Education, the Faculty

*It is the interplay between embodied and symbolic representations that constitutes a lively mathematical sophistication.*

of Land and Food Systems and the School of Architecture and Landscape Architecture on a large (1/3 acre, or about 1300 sq m) piece of land on the central campus. It is a companion project to the UBC Farm, which has finally been granted some measure of land security on the edge of campus.

The Orchard Garden provides a ‘living laboratory’ for agriculture and landscape architecture students as a space for design, experimentation and food production, and the organic produce from the garden is sold to the neighbouring student-run cafeteria at the Faculty of Land and Food Systems, as well as to the campus public. From the point of view of Education, we saw a need to offer preservice and inservice teachers the experience of teaching and learning across the mandated curricu-

lum in a laboratory version of a school garden. As more and more schools ‘go green’ and build and grow school gardens, there is a great need to help teachers become comfortable with maintaining these gardens and teaching curriculum using the embodied resources of the garden. If this doesn’t happen, school gardens will be seen as peripheral to the mission of schools and a burden to the system. We don’t want to see this happen!

Since its inception in April 2011, the Orchard Garden Outdoor Classroom has flourished, and has been the site of graduate and teacher education classes in Art Education, History Education, Science Education, Curriculum Studies, Environmental Education – and Mathematics Education. Those interested in learning more about the project will want to take a look at the beautiful blog, maintained by the terrific graduate and undergraduate student team who do most of the work on the Orchard Garden project: [outdoorclassroomubc.blogspot.com](http://outdoorclassroomubc.blogspot.com).

Through this important project, I have found myself redefined as an environmental educator (while still a mathematics educator) and involved in fascinating discussion and research on the frictions between interdisciplinary approaches (agriculture, education and design), on issues of intercultural sensitivity and responsiveness (through the Chinese Market Garden and Musqueam Garden projects), and on paradoxes of embodied and abstract ways of knowing mathematics via the garden.

I would welcome ideas, commentary and potential collaborations from fellow mathematics educators on either of these projects!

# PME International Committee Reports

## Highlights of the IC Portfolio Group Activities 2011-2012.

Details will be presented during PME 36 AGM July 2012.



### President's Portfolio Group (PPG) Report

João Filipe Matos, Portugal (president); Marj Horne, Australia; Alena Hošpesová, Czech Republic; Guri A. Nortvedt Norway; and Leonor Santos, Portugal

During the past months the PPG has taken part in the following activities. Further activity will be necessary before each case can be decided on by the IC or the AGM. A fuller report will be presented during the AGM in Taipei.

**Ombudsman:** In 2011 Fou-Lau Lin accepted to be Ombudsman for the PME membership. The Ombudsmans' role will be to receive and handle concerns made by PME members. However, the responsibility to take actions to secure fairness lies with the PPG. The PPG will set up a database for the ombudsman to document cases of unfairness and other issues, to provide a tool for monitoring associations work.

The PPG has discussed which sponsors and charities might be allowed to present to conference attendees in the conference bag. Tentative guidelines will be prepared for the IC forthcoming meeting in Taipei.

The sub-committee for Skemp Fund awards for PME36 had a meeting during the 2nd IPC meeting in Taipei where decisions were made as to who will be granted financial support from the Skemp fund to allow participation in the Taipei conference.

The work towards establishing PME as a charity organization has been handled by the VPPG and is in progress. The PPG have taken part in the discussions.



### Vice President's Portfolio Group (VPPG) Report

Tim Rowland, UK (vice president); Jeongsuk Pang, Korea; Núria Planas, Spain; Stefan Ufer, Germany

The focus of the Vice-President's Portfolio subgroup (VPPG) of the IC is the scientific activity of PME. Since July 2011, the VPPG has been working on six topics. In some cases, these carry forward the work of the VPPG in the previous year.

**Improving the quality of reviews.** Authors of PME36 Research Reports will be invited to comment on the quality of the reviews received on their submitted papers. They will be asked to respond to three questions (general quality; supportiveness; constructiveness) using a five point likert-scale, together with an open answer field. A trial version of this questionnaire for 2012 is being implemented in the Conftool system (April 2012); responses will be conveyed as feedback to reviewers. The VPPG will analyse the 2012 responses and make recommendations for 2013, including an evaluation of the feasibility of introducing a 'best reviewer' award in future years. Stefan Ufer has taken the lead on this project.

Can a person give more than one plenary? Under existing PME rules, a person may give only one plenary address

in her/his lifetime and, additionally, participate in one plenary panel. A president of PME may also give a (possibly additional) plenary at the end of her/his term of office. In response to some comments by members, the PME IC wants to create an opportunity to discuss the rules concerning PME plenary addresses. An article by Núria Planas in this Newsletter invites you to contribute to the debate in an online PME forum.

**Descriptions of group activities.** Tim Rowland concluded the work begun by Aiso Heinze last year. Revised and elaborated descriptions of the six types of activities (such as Discussion Groups and Working Sessions) were published in the PME36 First Announcement.

**Pre-Submission Support** (formerly known as the Early Bird Procedure). In consultation with Richard Barwell ('Early Bird' coordinator), Núria Planas has revised and clarified the guidance on PME support for novice and inexperienced researchers regarding strengthening Research Reports and Short Oral communications before submission. Since the process for PME37 will begin in September 2012, the revised guidance

will appear in the PME36 Second Announcement.

The research categories used to describe research topics, research methods and age groups when submitting a PME contribution. Following an analysis by JeongSuk Pang and Stefan Ufer of data from previous PMEs, some proposals for revision of the categories have been formulated. Before PME36 there will be a membership survey about the experiences with the current set of categories and ideas for improvement. Afterwards, the VPPG will integrate this data with their existing ideas to establish concrete proposals for research categories to be used for PME37.

**PME as a UK Charity.** Tim Rowland has continued work begun last year (under the auspices of the President's Portfolio Group) towards an application for IG-PME to become a charity in England and Wales. There are some complications, but a successful application will give PME status in law, with advantages including the management of our finances. A contribution from the IC officers in this Newsletter explains a constitutional matter related to the charity application.



## PME International Committee Reports continued...



### Secretary Portfolio Group (SPG) Report

Laurie Edwards, USA (secretary); Silvia Alatorre, Mexico; Stephen Hegedus, USA; and Samuele Antonini, Italy

The primary function of the Secretary Portfolio Group is to facilitate communication and to keep careful records of the activities of PME. In recent years, the former function has involved a number of changes in the technological tools used by the organization. This report will summarize these changes as well as look forward to plans and issues for the future.

#### Website

A new PME website was created last year by the Secretary and the Administrative Manager (Bettina Roesken). The URL remains the same: <http://igpme.org>. The website includes interactive discussion forums, a link to a history of PME, lists of current and former IC members and presidents, and a photo gallery. All PME members are invited to send photos from PME conferences, both historical and recent, to add to the gallery. In order to participate in the discussion forums,

you need to create a login and password for the site; it is recommended that you use the same login and password as the one used in ConfTool. (Note: at the time this report was submitted, there were technical difficulties with the website which hopefully will be resolved by press-time).

#### Membership Site

Research has been underway to evaluate possibilities for a membership site that can be integrated with the website. This would make it easier to join and renew PME memberships if you are not planning to attend the conference.

#### Moodle & Conference Documents

The current president, Joao Felipe Matos, created a Moodle site with two purposes: to facilitate communication among IC members, and to keep an archive of documents and information used each year for the Annual Confer-

ence. In conjunction with the ConfTool online conference system, these documents will make it easier for Conference Chairs to plan and implement the conference each year, without re-inventing items like acceptance letters. The Moodle also stores the Conference Guidelines, which were recently updated.

#### Print and Online Conference Proceedings

There has been a proposal to make print proceedings available only to those who wish to purchase them, while continuing to provide them in electronic form at the conference (either on CD or USB drive). At the AGM, there was general agreement that whoever publishes the proceedings must allow copyright to be retained by the authors, as is the current practice. The SPG is continuing to look for a solution of this nature, preferably one that also allows online access to the proceedings.



### Treasurer Portfolio Group (TPG) Report

Marianna Tzekaki, Greece (treasurer), Bettina Dahl Søndergaard, Denmark; Marcia Pinto, Brazil; and Tai-Yih Tso, Taiwan

After organizing the information for the IGPME finance report of 2010, the members of Treasurer Portfolio Group are getting prepared for the preparation and the support of the next treasurer of IGPME (as Marianna Tzekaki is retiring this year).

Related to the IGPME charity application, the members of TPG are taking action to professionalize the treasurer's work, in order to keep accurate and transparent picture of IGPME finances. Thus, the treasurer's portfolio group will, depending on the status as charity and the requirements connecting with this, suggest to next portfolio group the

assignment of book-keeping of finance information (both for International Group and Conferences) to accountants.

For this year the documents and all necessary information for auditing IGPME's finance were completed and sent to Markku Hanula, auditor.

One of the main interests of the members of TPG was the preparation of a new template for conference budget in order to help conference organizers for better preparing and reporting their financial part of the conference and the exchanges between local committees and IGPME.

Moreover, the collection of common data from conferences' budgets will permit their comparison and support proposals for possible cost reductions for future conferences. To this direction, the treasurer portfolio group will send a first picture of this work to the path for AGM and discussion.

Finally, the TPG examines the reports and documents of the years that have not been audited (2007-09) and hope to have some proposals for closing these pending finance matters, before next years' meeting.

## Taipei, a world of light and wonder

International Committee member Silvia Alatorre of Mexico attended the International Program Committee meeting in Taipei, March 2012. Silvia shares her first time experience in Taipei the host city of PME 36.

I am just back from Taipei, where we had a good week of intensive and pleasant work at the International Programme Committee Meeting. The local team and the team from the IC got along very well, and we managed to finish everything on the agenda, including a visit to the school that will be our main venue for PME 36 and to the monumental building where the inauguration will be held (they are both very good facilities). We are very confident that from the academic and the social points of view PME 36 will be a great conference. But my intention with these lines is to share with you all my impression of Taipei. I had never before been in Taiwan or China, so these are first timer's impressions.

The first word that comes to my mind when I think of the city of Taipei is *light*. The main streets are broad boulevards that have either lots of beautiful tall trees and plants, or elevated roadways for cars or the metro – or trees *and* elevated roadways. People walk around with an intriguing mixture of calm and activity, and you never get to feel the density of a big city, because there is so much light and air. Well, *almost* never: the exception is when a street light turns to green and suddenly an army of scooters with helmeted knights charges on the empty street ahead of them; just enjoy the sight of this army, and do notice that many of

the knights wear miniskirts and sexy stockings. However, Taiwanese people are no warriors; once they take off their helmets (which they leave inside the unlocked seats of the scooters) they are one of the nicest and friendliest people I have ever seen. Many speak English (and, by the way, there are also many signs in the streets that are in English, including the names of the streets and the metro stations), and they are always willing to offer explanations or indications.

The second word that comes to my mind is *easiness*. Maybe I shouldn't be telling you this, but one evening five of us (non-Chinese speakers) went out of the hotel for a walk and got lost; the sightseeing was great

but we were hopelessly lost. However our adventure didn't last long: some of us found a big display with a city map right there, on the sidewalk, and some of us just asked a couple of passer-by's. Strangely enough, both sources of information yielded the same result, and after being lost for maybe 15 minutes we were safely back in our hotel. Not much of an adventure, I concede, but enough to feel what a safe place this country is, even for illiterate foreigners like us.

The third word that comes to my mind is *savour*. Because we were working long hours, we could not manage to visit the interesting places of Taipei (great museums, etc.), so that will have to wait until after the conference in July. However, Tai-Yih Tso and the rest of the Local Organizing Committee gave us a sample of what Taiwanese hospitality is and took us to an assortment of Chinese and Taiwanese restaurants with an incredible variety of styles. North-China food or Mid-Taiwanese food? No problem! (I slightly preferred the former). Fork and knife or chopsticks? No problem! (I definitely prefer the latter). Tea or Taiwanese beer? No problem! (I loved both).

I'm sure you'll enjoy the city, the people, the food – and the conference! See you in July!



Silvia Alatorre enjoying Taipei

## Mathematics Education and Contemporary Theory Conference

submitted by Tony Brown

Mathematics education as a field for research can sometimes related awkwardly to its two constitutive terms, which tenuously wave to each other from disparate conceptual domains: while mathematics often continues to be seen as a discipline beyond social discourses where its objectivity is a prized possession, education is notionally a social science susceptible to interpretive analysis.

The Mathematics Education and Contemporary Theory conference recently held at Manchester Metropolitan University explored the frontiers and possible futures of mathematics education through considering how theoretical resources enable alternative possibilities (<http://esri.mmu.ac.uk/mect/index.php>).

The conference asserted a place for theory in the future development of mathematics education research. Key note speakers included Luis Radford and Deborah Britzman. Tony Brown and Margaret Walshaw have recently guest edited a double issue of the journal Educational Studies in Mathematics associated with the conference, to which many delegates submitted a paper. This issue is currently available on ESM's online access and is scheduled to be published as a hard copy this month.



### PME-North American Chapter Conference 2012

Kalamazoo Michigan USA November 1-4 2012

#### Navigating Transitions Along Continuums

The 34th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA 2012) will be held in Kalamazoo, Michigan, USA, November 1-4, 2012.

Plenaries will address four continuums of the conference theme, *Navigating Transitions Along Continuums*:

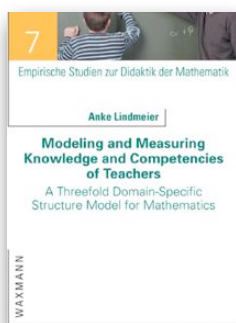
- Jo Boaler will discuss scaling up *innovations*;
- Jere Confrey will speak on the *student learning* continuum;
- Christian Hirsch will moderate a panel of Amanda Jansen, Janie Schielack, Cathy Seeley, and Jack Smith as they discuss navigating translations along the *school mathematics articulation* continuum;
- Deborah Ball and Suzanne Wilson will discuss transitions on the *professional learning* continuum.

Regardless of your research area, we encourage you to consider your work through the perspective of the conference theme. By collectively focusing on critical issues related to transitions, the conference will contribute to a better understanding of how to effectively navigate them.

[www.pmena.org/2012](http://www.pmena.org/2012)

#### NEW BOOK....

#### Modeling and Measuring Knowledge and Competencies of Teachers: A threefold domain-specific structure model for mathematics



This work combines approaches from an international perspective and proposes an integrating structure-model for secondary mathematics teachers' knowledge and competencies. Includes a feasibility study with suggestions on how to measure teacher competencies video-and computer-based.

<http://waxmann.com/>

ISBN: 987-3-8309-2453-1