



TSG 61

INTERNATIONAL COOPERATION IN MATHEMATICS EDUCATION

The Organizing Team

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Mathematics is an essential literacy which is necessary to address the concerns of globalization. High quality mathematics education has thus become a priority of the reform agenda to achieve the United Nations Sustainable Development Goals (SDGs) (United Nations, 2015). While it is a common goal to progress and improve the status of mathematics education, this aspiration is not easily attained for many countries. As a result, there is a demand for countries and agencies to support and collaborate with each other in international cooperation projects. This demand often provides the rationale for mathematics education to be included in various international education cooperation efforts which go beyond merely adopting successful practices of high achieving countries but to seek appropriate technologies and methods to advance mathematics education. Mathematics educators, teachers, government officials and consultants participate at various levels of international education cooperation, namely, (1) International, (2) Governmental, (3) Institutional, and (4) Personal. Projects also vary in scope from nationwide to provincial and school levels to cater for the demands of both mainstream and marginalized groups. Various aims and purposes of international cooperation in mathematics have been noted: (a) Curricular development which encompasses curriculum reviews, textbook resource development, as well as the enhancement of meaningful teaching and assessment approaches, (b) Professional development at in-service and pre-service levels, and (c) Creating communities to enhance mathematics education. While international education cooperation has been ongoing, there remain many issues and challenges to be overcome (Atweh, Boero, Jurdak, Nebres, & Valero, 2008). Emerging trends in respond to these concerns include:

- Renewed emphasis on pre-primary and basic education up to the secondary level
- Reaching out to special groups, for e.g., disabled, poor and gender groups
- Re-establishment of higher education as an agenda

- Emphasis on assessment for accountability
- Inclusive involvement and expanding the roles of new partners, donor countries and agencies, and non-governmental organizations

TSG 61 aims to establish an international community of scholars, teachers, government officials and consultants to serve as a platform to further exchange views and insights on issues and concerns related to research and development in international cooperation in mathematics education. Mindful that some issues of international cooperation in mathematics education may overlap with those of other Topic Study Groups at ICME14, the discussion in this group shall be guided, though not exclusively by the following questions:

1. What were the roles of the cooperating agents in the project?
2. What were the challenges, and the subsequent methods/solutions/strategies and good practices used to overcome these challenges?
3. What were the views of the various cooperating agents in overcoming these challenges? How were differing views about teaching and learning mathematics resolved?
4. How did the project impact on the quality of teaching and learning mathematics?
5. How did the project plan for sustainability and expansion?

This Group aims to include regular presentations, short presentations as well as poster presentations from various perspectives.

References:

United Nations (2015). Resolution adopted by the General Assembly on 25 September 2015.

Transforming our world: the 2030 Agenda for Sustainable Development. Paris: United Nations.

Atweh, B., Boero, P., Jurdak, M., Nebres, B., & Valero, P. (2008). International Cooperation in mathematics education: A discussion paper. In M. Niss (Ed), *ICME10 proceeding* (pp.443-447). Roskilde University: Denmark.