

# **Preface for the Special Issue for Topic Study Group 25 of ICME 2012: In-service Education, Professional Development of Mathematics Teachers**

The aim of Topic Study Group 25 (TSG 25) at ICME-12 in Seoul in summer 2014 was to discuss the experiences and approaches developed in different countries to support the professional development of teachers for practice, in practice and from practice. The professionalization of teaching requires teachers and teacher educators to be involved in a learning process throughout their entire professional life. The complexity of mathematical teaching practices raises a lot of questions for in-service teacher education such as the demands of new curricula, the development of interdisciplinary projects, the introduction of new technologies into classrooms, or the adaptation of teaching practices for different students and contexts (students with learning difficulties, multicultural classrooms, underprivileged schools, adults, alphabetism etc.). These challenges demand serious reflections as to how to support those directly concerned by these issues and develop means that take into account the differing problems to educate teachers in each country.

The TSG 25 received 74 paper submissions from scholars, practitioners, and graduate students in various countries and regions, and accepted 69 papers. A total of 63 papers were presented at 10 TSG 25 sessions at the conference. Participants discussed research based practices and state-of-the-art approaches to in-service education and professional development of teachers from a multi-national and global perspectives. This special issue for TSG 25 includes 10 papers from those sessions bringing different perspectives focused on the aim of in-service education, professional development of mathematics teachers by scholars from six countries. The authors addressed key issues from various aspects at different levels, and raised critical questions, such as, “What kind of processes of perceiving and judging a quantity of a representation of numbers can be observed by pre-school teachers?” “In what ways do teachers perceive the laboratory class cycle to contribute to their professional development?” “How does the professional development facilitate the transition for teachers to make both their classrooms and schools sites for inquiry, and form and sustain

professional learning and inquiry communities?” The authors provided insightful findings for effective models and approaches for mathematics teacher education and professional development with international perspectives.

The editorial team appreciated all authors’ great contribution to this special issue. Special thanks also go to our reviewers who devoted time to read and provide detailed feedback for improving the manuscripts. Many thanks go to our team of Editors, Drs. Shuhua An, Enrique Galindo, Ho Kyoung Ko, Azita Manouchehri, and Vilma Mesa for your hard work, collaboration, and timely editing of all assigned papers. In addition, we thank Dr. Song An, editor assistant, who diligently produced the final editing and formatting of all manuscripts. With all your collective effort and great support, this special issue is now made possible to our readers.

**Editorial Team for the Special Issue of ICME12 TSG25:**

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