TSG 31
IN-SERVICE MATHEMATICAL TEACHER EDUCATION AND MATHEMATICAL TEACHER PROFESSIONAL DEVELOPMENT AT SECONDARY LEVEL

The Organizing Team

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The focus of TSG 31 is the study of in-service and/or professional development initiatives aimed at improving secondary mathematics teaching on a large scale. *Scaling up* means to reach many classrooms ($n \geq 10$), and potentially whole schools, districts, cities, or even a whole state or nation. TSG 31 welcomes all descriptions of initiatives such as in-service courses, professional development programs, school development projects, and collaborative networks of practitioners and researchers. However, each initiative should be research-based and provide new insights into the challenge of improving mathematics teaching on a large scale. Possible research questions could include: What does it take to up-scale a professional-development program? What are the factors that need to be considered when adapting a certain program to new cultural settings? Which aspects of the intervention could be scaled up and which couldn't? How could the impact of large-scale approaches be evaluated? What types of diagnostics about students' mathematics learning can be applied and why? To what extent can a steady collaboration between research and practice be achieved on a systemic level? What are the key factors in sustaining such collaboration? What challenges arise during such collaborations?

TSG 31 invites ICME participants to submit papers, which then undergo a review process. According to selection criteria (see below), the organizing team chooses the most relevant papers. These papers will be discussed within the three sessions of TSG 31, or in Short Presentations and Poster sessions.

Each submission should address as many of the following criteria as possible:

- Goal of the initiative (in particular, related to “improving teaching”, “scaling up” and “sustainability” of the initiative)
- Context and design (cultural, organizational, …)
- Key actors, their roles and collaboration
- Research question(s) and theoretical framework
- Methodology and data analysis, limitations
- Results that answer the research question(s), and thus go beyond showing the initial success of the initiative
- Challenges arising during the implementation and ways of dealing with these challenges (in particular, related to “improving teaching”, “scaling up” and “sustainability”)
- Lessons learnt (related to practice and/or research) for further developing the initiative and/or for other initiatives (e.g., what does it take to adapt a successful initiative for improving mathematics teaching to a different cultural setting?)