



15th International Congress on
Mathematical Education

7-14 July 2024 • ICC Sydney, Australia
Come and be counted

Topic Study Group 4.3: In-service mathematics teacher education and mathematics teacher professional development for primary level

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Team details

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Overview

This Topic Study Group aims to provide a platform for Congress participants to share research, policy, design or practice that focuses on in-service mathematical teacher education and mathematical teacher professional development at primary school level.





Focus and themes

The focus of TSG 4.3 is a discussion of research related to in-service mathematical teacher education and mathematical teacher professional development at primary level. In-service mathematics teacher education and professional development are integral parts of teachers' life-long learning process, and take many different formal or informal formats with various focuses and requirements within and across education systems. The situation becomes especially complex at primary school level, where in many education systems teachers can be generalists, but content specialists in some other systems. Understanding and researching in-service mathematical teacher education and mathematical teacher professional development at primary level, therefore, calls for special attention to policy, design and practice situated in special system and sociocultural contexts. For example, it is not difficult to notice contrasting practices in which mathematics teachers work and learn in different ways through various forms of collaborations in the East versus in the West. Efforts to understand what in-service teachers may do to improve their teaching and expertise have led to ever-increasing interest in examining different programs, activities, and the nature of collaborations and processes through which primary school teachers are engaged to learn. Consistently, new theoretical perspectives have also been developed and proposed about the mathematics teacher working and learning in collaborative groups as lesson study, as practice-based professional education of teachers or as teacher learning in communities (see the ICMI Study, Borko & Potari, 2020); communities of teachers working in contact with communities of researchers and evolving in their professional practices (see Arzarello et al., 2014). It is important to understand through research the nature of different programs and activities, the focus and process of various teachers' learning and professional development, the extent of teachers' learning effects, the roles of policy and administrative support, and specific system and sociocultural factors associated with different programs and activities.

With this focus, TSG 4.3 intends to provide an international platform for all interested parties (e.g., mathematics educators, teacher educators, school teachers, educational researchers, policy makers, etc.) to disseminate findings from their research on in-service mathematical teacher education and mathematical teacher professional development at primary level, with the use of various theoretical perspectives and methodologies, and to exchange ideas in research, development, and evaluation of in-service mathematical teacher education and mathematical teacher professional development at primary level.





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Areas of interest

Possible themes of TSG 4.3 include the following:

- Theoretical perspectives and methodological advances in research on in-service mathematical teacher education and mathematical teacher professional development at primary level;
- Research on the design and/or implementation process of specific programs, approaches, and practices, such as the use of video and IT, for in-service mathematical teacher education and mathematical teacher professional development at primary level;
- Research on documenting the effectiveness of specific programs, approaches, and practices for in-service mathematical teacher education and mathematical teacher professional development at primary level;
- Research on comparing and documenting system and sociocultural factors contributing to in-service mathematical teacher education and mathematical teacher professional development at primary level; and
- Various issues concerning possible (dis)connections between research and practice in in-service mathematical teacher education and mathematical teacher professional development at primary level.

How to make a submission to this Topic Study Group

Submissions for Topic Study Group Papers and proposals for Posters open 28 April 2023 via the official ICME-15 website, icme15.org. The website also contains a timeline of dates for the activity of the Topic Study Groups in the lead up to the Congress.

For questions about this TSG, please contact the Co-Chairs using the email addresses provided.

