

CERME 11: Thematic Working Group 17

Theoretical Perspectives and Approaches in Mathematics Education Research

Leader: Angelika Bikner-Ahsbals, (Germany), bikner@math.uni-bremen.de

Co-leaders: Arthur Bakker (Netherlands), Esther Chan (Australia), Heather Johnson (USA)

Scope and focus of the Thematic Working Group

The CERME TWG 17 has focused on the question of how to work with theories in the field of mathematics education. A key focus concerns multi-theoretical approaches, in which researchers aim to network, or interweave, multiple theoretical approaches to solve problems and better understand the complexity of teaching and learning mathematics. In CERME 11, we intend to build on the networking of theories approach addressed in previous CERME conferences and expand this work by explicitly linking to methodology—the logic of how researchers’ methods lead to warranted claims. Theoretical progress generally implies a rethinking of research methodologies. In turn, new methodological approaches and techniques can promote theory development. For example in embodied cognition research, new theoretical insights led to researchers’ development of new methods for data collection and analysis. In other cases, this occurred conversely.

Call for papers and poster proposals

We invite researchers to submit papers (8 pages maximum) and poster proposals (2 pages) on the subsequent issues addressing one or more aspects from the list below (in an explicit manner). In order to avoid resting on an abstract level we specifically welcome papers presenting concrete research, for example (case) studies offering data or concrete descriptions to be discussed. Topics include but are not limited to:

- The need to go beyond a specific theory when researching a phenomenon;
- The need to adapt methodology out of theoretical concerns, or vice versa;
- The epistemological dimension in theory and/or methodology, for example in terms of argumentative grammars or background philosophy;
- Theories for research in technology use and/or (embodied) design research;
- Conditions for a productive dialogue between theorists, within mathematics education and beyond, for example in terms of boundary crossing or networking of theories.

We also welcome proposals that address other relevant aspects of the overall topic.

Papers and poster proposals should use the CERME template, and conform to the guidelines at the [guidelines website](#). CERME 11 uses a [submission website](#). The authors submit the initial version of their paper on the website (uploading it both as a .doc and a .pdf file, and providing the required information, in particular the TWG number).

Reviews and decisions

Each paper will be peer-reviewed by two persons from among those who submit papers to this TWG. Please expect to be asked to review up to two papers yourself. The group leaders will decide about the acceptance of posters.

Important dates

- **15th July 2018:** Early bird submission (please refer to the [early bird website](#))
- **15th September 2018:** Initial submission by authors in the submission system.
- **3rd November 2018:** Initial decisions on papers and posters sent.
- **24th November 2018:** The authors submit a revised version if needed.
- **5th December 2018:** Final decisions sent.
- **12th December 2018:** Final version uploaded.
- **13th January 2019:** Papers available on CERME 11 website.