

CERME3 PANEL—DEBATE
**THE RELATIONSHIP OF THEORY AND PRACTICE
IN MATHEMATICS EDUCATION**

The purpose of this plenary session at the CERME3 conference was to draw together participants from the working groups to consider important issues that cut across the group specialisms. *Relationships between theory and practice* seemed to the Programme Committee to present a fruitful area for such consideration. The session was designed to provide stimulating inputs from experienced researchers from three countries (the panellists) with opportunity for the conference community to engage with issues and contribute to debate. The panellists were Mariolina Bartolini Bussi from University of Modena in Italy, Christer Bergsten from Linköpings University in Sweden and Konrad Krainer from the University of Klagenfurt in Austria, with Barbara Jaworski from Agder University College, Norway as Chair of the panel. We decided that each panellist would focus on an example or examples from research in their own country and draw out more general issues which could lead to debate.

This written presentation of the material offers

1. An introduction to the topic of the panel:
The relationship of theory and practice in mathematics education
by Barbara Jaworski;
2. Written versions of the three talks from the panellists:
 - a. *Theory and Practice: An Internet Project about Science and Technology*
by Mariolina Bartolini Bussi;
 - b. *Theory–practice relationships in mathematics education*
by Christer Bergsten;
 - c. *Theory and Practice: Facilitating teachers’ investigation into their own teaching*
by Konrad Krainer.
3. Some concluding thoughts related to questions that arose in debate.

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CONFERENCE PROGRAMME

The session at the conference began with an introduction followed by a presentation by each of the panellists. The conference community was then invited to split into smaller groups for 30 minutes of discussion around the presentations, with a set of guiding questions as follows:

1. In what ways are theory and practice related or separate?
2. Are there different kinds or levels of theory?
3. In what ways do you use theory in your own practice?
4. Does practice always involve theory?

The final part of the session involved opportunity for conference members to engage in debate with the panel through questions or comments arising from group discussion or from personal perspectives.