

What does PME contribute to mathematics education?

Rina Hershkowitz¹ & Stefan Ufer²

¹Weizmann Institute of Science, ²University of Munich

The International Group for the Psychology of Mathematics Education (PME) was founded in 1976 in Karlsruhe (Germany), during the ICME-3 Congress. Since 1977, the PME group has met somewhere in the world every year and developed into one of the most interesting examples of international groups in the field of educational research. In this presentation, we will try to draw some main features of the unique essence of the PME group's research. Rather than doing it in a general way, we will describe and analyze the change and development of a few main research lines. In such a way we will have the possibility to touch real examples from which the more comprehensive lines of PME research, its change and progress will be emerged. Moreover, we will point to some possible impulses for the further development of PME research.

In particular, we plan to pursue the following lines:

- 1. Demonstrating change and development in PME's research by tracing it in **a unique content's domain** (e.g. Numbers, Algebra & Geometry).*
- 2. The line which focuses on the shifts in research on **learning processes**: from a focus on the individual's learning within laboratory conditions to **classroom research** including the role of individuals, groups, the whole class community and the teacher, from socio cultural and cognitive perspectives.*
- 3. Research in which **teachers are "at the center"**, including teachers' education and teachers' diverse genre of teaching in the classroom.*

We are completely aware that the developments described above are closely connected, and we see that as a part of the strength and potential of PME's contribution. Finally, we will emphasize the connection of scientific research and educational practice that has distinguished PME in the past forty years and which builds a substantial basis for future development.