



TSG 12 Teaching and learning of geometry (primary level)

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This group provides a forum for discussion of the learning and teaching of geometry, with a focus especially on the kindergarten and primary education level. This Group will have short presentations on, and discussions of, important new trends and developments in research or practice, in geometry teaching and learning, and expositions of outstanding recent contributions to it.

The focus of the group will be on theoretical, empirical, or developmental issues related to the following themes:

- Curriculum studies of new curriculum implementation
- Application of geometry on the real world and other subjects
- Use of instrumentation such as manipulatives and computers in teaching and learning of geometry
- Explanation, argumentation and proof in geometry education
- Spatial abilities and geometric reasoning about two- and three-dimensional shapes
- Psychological roots of the spatial, visual and geometrical thinking
- Pre-concepts in geometry learning
- Natural geometry or core knowledge of space and geometry
- The role of geometrical transformations in learning and teaching elementary geometry
- Teacher preparation in geometry education.

The issues raised will be considered from the historical and epistemological, cognitive and semiotic, educational points of view related to students' difficulties and related to the design of teaching and curricula.