

Workshop 1

Research pentagon - A tool for structuring a research project

Jana Trgalova

The research pentagon elaborated by Bikner-Ahsbabs (2019) represents five aspects that need to be considered in research, namely research objects, aims, questions, methods and situations. During this workshop, the research pentagon will be presented and illustrated with examples of research projects. Then, participants will be invited to think about their own research with the lens of the research pentagon, describe the five aspects in their PhD research projects, represent the relations between them, and explore the coherence of these relations.

Reference

Bikner-Ahsbabs, A. (2019). The Research Pentagon: A Diagram with which to think about Research. In Kaiser, G., Presmeg, N. (Eds), *Compendium for Early Career Researchers in Mathematics Education. ICME-13 Monographs*. Springer. https://doi.org/10.1007/978-3-030-15636-7_7

Workshop 2

Analysing verbal interactions by different lenses – Focusing on norms and role playing

Konstantinos Tatsis

Social and sociomathematical norms have proven to be powerful concepts for analysing interactions within the mathematics classroom. These concepts have been combined with role playing, in order to achieve a more holistic view of the taken-as-shared mathematical meanings (Tatsis & Koleza, 2006). During this workshop, examples of such analyses will be presented and discussed. The participants will be then invited to analyse given texts by the provided tools and discuss issues in their own studies that might be relevant.

Reference

Tatsis, K., & Koleza, E. (2006). The Effect of Students' Roles on the Establishment of Shared Knowledge during Collaborative Problem Solving: A Case Study from the Field of Mathematics. *Social Psychology of Education*, 9(4), 443–460.