
Research in mathematics education

- Previous studies:
 - Students' mathematical views in the begin of studies (Antti Viholainen, Mervi Asikainen, Pekka E. Hirvonen)
 - Students' views about proof (Antti Viholainen)
 - Mathematical knowledge for teaching (Mika Koponen, doctoral thesis)
 - Conceptions about good mathematics teaching and good mathematics teachers (Mervi Asikainen)

Development of teaching

- Development of special courses for student teachers (Antti Viholainen)
- Flipped classroom in Algebra course (Visa Latvala)
- Development and use of Stack-exercises (Martti Pesonen)
- Different forms of assessment in geometry course (Antti Viholainen)
- Development of course " Phenomenon-based approach in science and mathematics teacher education", (co-operation with physics, chemistry, biology and geology)

Ongoing or future research

- Analysis of learning materials with respect to use of metaphors and argumentation (Antti Viholainen, Mervi Asikainen)
 - Co-operation with Luleå University of Technology (Timo Tossavainen)
 - Co-operation with physics educators
- Students' convinceness about arguments in Euclidean geometry (Antti Viholainen)