ROLE PLAYING IN MATHEMATICS EDUCATION

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The goal of the proposed discussion group is to examine various ideas for implementing role-playing in mathematics education, either enacted or imagined, and to consider advantages and limitations of this pedagogical approach.

ROLE PLAYING – ENACTED

Role-playing is considered a valuable pedagogical approach in a wide variety of setting. Increased understanding of the content and enhanced interaction among group members are often mentioned as advantages of this strategy. However, mathematics education role-playing has been referred to as an "underused resource" (Pimm & Johnston-Wilder, 2011). Rare examples of its use include recreating realistic situations such as a shop in an elementary school mathematics classroom.

ROLE PLAYING – IMAGINED

Several recent studies have implemented what we consider "imagined role playing". Rather than playing the roles, participants wrote scripts for plays. This included 'proof-scripts', where the participants created dialogues among the characters around particular proofs and in such clarified perceived difficulties in the proofs (Koichu & Zazkis, 2013; D. Zazkis, 2013), and 'lesson plays', where participants presented a flow of a lesson in a form of a scripted interaction between a teacher and students (Zazkis, Sinclair & Liljedahl, 2013).

PLAN FOR THE DISCUSSION GROUP

Following a short overview of settings in which role playing (either enacted or imagined) has been implemented in mathematics education, the participants will design and enact scenarios for role playing (a) around particular mathematical content of their choice, and (b) around 'sensitive' issues in mathematics teaching (such as a conversation with a mathematician who opposes a role-playing pedagogy).

References

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