

TITLE: Students' problem posing as an indicator of mathematical culture of lower secondary students

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ABSTRACT: This thesis is focused on students' problem posing as an indicator of mathematical culture of lower secondary students. The theoretical background consists of research on problem posing, word problems in mathematics, mathematical culture and the Theory of didactical situations in mathematics. The goal of the thesis is to analyse links between problem posing and students' mathematical culture through the analysis and description of the posed problems.

The thesis consists of two parts, theoretical and research part. In the theoretical part, there are the main findings about students' problem posing and some approaches to the concepts of word problems and mathematical culture, and the main concepts of the Theory of didactical situations used in the thesis.

The research part starts with the analysis of the pre-experiment, which constitutes the basis for creation and characteristics of the conception of mathematical culture of problem posing. These parts are followed by the analysis of the main experiment, which provides the complete description of the posed problems based on this conception. The thesis is concluded with the summary of the results of the analysis are summarized focusing on key features of the posed problems and the comparison from different perspectives. The final part also contains of the conclusions and implications for further research.

KEY WORDS: problem posing, word problems, mathematical culture, theory of didactical situations in mathematics