

Abstract:

This Master's Thesis deals with student strategies for solving word problems with fractions. The theoretical part includes the definition of the term word problem, the categorization of word problems based on criteria listed in the literature, the description of the process of solving a word problem, as well as the most frequent difficulties that students encounter when solving word problems. Moreover, the theoretical part also compares more than 40 textbooks - the introduction of the term fraction and of basic operations with them, the content of word and calculation problems with fractions in the textbooks - and describes the difficulties that may arise when calculating with fractions. The practical part of this Thesis contains the description and evaluation of a survey performed with 8th grade students that consisted of three different word problems. The expected solving strategies and mistakes are listed together with the actual strategies employed and mistakes made by the students, including the full analysis of selected student solutions.

Keywords:

word problem, fraction, problem solving strategy, case study