

Abstract

Tandemat – didactic game for the teaching of mathematics at the secondary school

The thesis concerns a didactic game called Tandemat which I have created as a complement for the teaching of mathematics at secondary schools. The goal of the thesis is to find out and describe the potential of this game for the teaching of mathematics at this school level.

First, the importance of games in our lives and also in teaching is mentioned. Next, some resources concerning games in the teaching of mathematics are described.

The core of the thesis consists of the game Tandemat which I have elaborated and which is inspired by the popular game Activity. The results of the pilot studies of the game with the preliminary name Aktivita which were realized at elementary school and university helped to improve the game into its present version Tandemat. This has been tested by five groups of pupils in four classes of a secondary grammar school. The experiments were recorded and the acquired data were analyzed using the method based on the grounded theory approach. Moreover, a questionnaire was administered to pupils, concerning their grades in mathematics and the Czech language and their remarks on the game itself. The results of the analyses, observations and questionnaires show the potential and the limits of Tandemat as a didactic game usable in the teaching of mathematics at secondary schools (at least at secondary grammar schools) mainly for the consolidation of mathematical terms and their meanings.