

ABSTRACT

The aim of this thesis is to explore thinking processes of pupils when solving problems of geometric manipulative environment Parquets. I elaborated this environment Parquets and stated characteristic tasks. I have also described, in what mental schemes of mathematical concepts solving tasks may contribute. I made use of pupil's life experiences with the game Ubongo in the presentation of the environment for them. The diploma thesis is presenting the ideas of the constructivist approach to teaching mathematics. Necessary relevant theoretical concepts are defined in the theoretical part.

The experiment with third grade, who attended the Math's club is the basis of this diploma thesis. Video recordings were transcribed in the form of a written report and these were analyzed in the aim of diagnosing and describing phenomena that are related to discussions of pupils, their cooperation within the group and the development of mathematical experience, knowledge, skills and abilities of the student, but also the personality and social competences. In the analysis I also pay attention to the role of the experimenter, who was also in the role of a teacher.

In conclusion, I made recommendations that could improve the lesson.