

## **ABSTRACT**

This thesis investigates the perception of regularity in arithmetic of pupils in 2nd and 3rd grade of primary school. The theoretical part focuses mainly on pupils' preconceptions (previously acquired experience with the chosen topic). It presents examples of problems from various series of mathematics textbooks for primary school, which allow pupils to encounter the topic of regularities and rhythm in the course of their studies. This section also explains the concepts related to the topic - dealing with error, error strategies and, following the preconcepts, with possible ways of re-teaching. The research part aims to analyse the pupils' solutions obtained within the faculty project *Teachers' understanding of the causes of school failure and the effectiveness of pedagogical interventions*, implemented by the Pedagogical Faculty of Charles University with financial support from the OPVV programme of the Ministry of Education. The target group of the testing are pupils of the 2nd and 3rd year of primary school. This part of the work includes the preparation and implementation of the actual experiment with the task, analysis and comparison of the results from the experiment with the data obtained in the project. These are supplemented by written records of interviews with pupils and teachers. Comparison of the research results shows that there is a cognitive shift in the pupils, which is manifested in improved perception of regularities and pattern finding. According to the results of the actual experiment, a dependence on the way the task is given can also be observed.