Cooperative group work presents further tasks for students in addition to solving the assigned problems themselves. The students are forced to formulate their suggestions and approaches and defend, substantiate and explain them to their partners more than when they are working independently. When working cooperatively, the students create and reconstruct their relationships to one another.
Cooperation in a group can give the students room to acquire new skills not only in the area of mathematics, but also in the area of interpersonal communication and social relationships. The aim of this thesis is to identify features which are characteristic for communication in the cooperative solving of problems and to determine whether communication in the group influences the process of problemsolving, and if so, how.
The basis for the analysis was a corpus of transcripts of conversations between students which took place as part of an experiment. In this experiment, elementary school students of homogeneous ability between the ages of 13 and 15 worked on solving logic problems in small groups. The students' task was to solve an assigned set of problems and to explain their ideas and approaches to each other in such a way that every member of the group could understand the process leading to the achieved solution.
In order to compare the communicative and the "solving" sides of the dialogue, I oriented my analysis to each of these two components separately. In the analysis of the students' communication, I utilized approaches from the field of linguistics - speech act theory, the cooperative principle, and conversation analysis. I identified and described the communicative function of the students' statements and the typical patterns and strategies of their communicative actions.