The quickest way to find out what children already know about some natural phenomenon is to let them make sketches. Giving children such a task, one has to be careful to give appropriate instructions of how to do sketches: the instructions should not be too long, but nevertheless precise enough so that children know what to draw and in what way. Then the children’s sketches have to be analyzed—this is the only way to find out which concepts have not yet been mastered by children, what experiments are still to be performed (or which phenomena are to be observed once again and what has to be repeated in order that a topic is mastered by the pupils).

The students of Primary Teacher Program wanted to perform, within their seminar work, a more detailed analysis of the pupils’ sketches. In the course of the field work in one of the primary schools, a questionnaire was administered among pupils of the second grade (26 children), of the fourth grade (32 children) and of the fifth grade year (58 children). The pupils sketched themselves and their shadow in the morning, in the afternoon and at noon. Their sketches were handed over to the students in order to be analyzed. We found out that the students had a lot of problems in doing the analysis. We therefore decided to dedicate more time to this activity. We discussed with students how to prepare the questionnaire, how to prepare the analysis, we discussed the analysis itself and the problems encountered by both the pupils and the students.