Abstract

This work deals with project teaching of vertebrate zoology at the 2nd level of primary schools. First, it outlines the reasons for students' lack of interest in science subjects and tries to find a way to make teaching science more attractive to students through research-oriented methods and project-based teaching. Project-based teaching and enquiry based science education are methods that activate pupils and increase their motivation to engage in science subjects. For effective science teaching, it is essential to use teaching methods that are based on self-observation and experimentation, search and processing of acquired information, and students are actively involved in the process of learning about various facts and laws. These teaching methods have their roots in empiricism, sensualism and rationalism. The role of the teacher is also changing, who becomes a kind of guide in the teaching process and lets the students work independently on the chosen topic. In addition to setting out and explaining basic concepts such as inquiry-based instruction, this work also presents instructions for elaborating a separate research lesson from hypothesis formulation, planning and execution of the experiment to data evaluation and drawing conclusions. It gives concrete examples from practice that take into account these principles of working with students. The individual lessons elaborate chapters from the teaching of vertebrate zoology in the 7th and 8th year at lower secondary school and touch on thematic units such as winter bird watching on the river or school garden, the occurrence of amphibians in adjacent localities or map the occurrence of european beaver on the Vltava.