

T7_46 VIDEO-STUDY OF THE ROLE OF EXPERIMENTS IN PHYSICS EDUCATION

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The innovation of physics educational objectives leads to the accent on school physics experiments. Experiments can be used in all teaching/learning phases: motivation, exposition, fixation, application and diagnostics. School experimenting represents crucial method of physics education and experimental skill acquirement. The contribution presents methodology of video-study and the research results demonstrating the role of experiments in the physics education at lower secondary schools in the Czech Republic. The method of video-study is based on the analysis of video records of lessons by means of special software. Using this approach, the importance of experiments in physics lessons is investigated, with a focus on their different roles. Our research findings showed that school experiments used by teachers are not always appropriate and sufficient for development of students' physics knowledge and skills.