

Abstract (Aj)

TRENČAN, Jozef: *Outdoor Activities in Physics Education at High school*. [dissertation thesis]. Comenius University in Bratislava. Faculty of Mathematics, Physics and Informatics. Department of Didactics in Mathematics, Physics and Informatics. Level of professional qualifications: PhD. Bratislava: FMFI UK, 2021. 127 p. Supervisor: doc. RNDr. Peter Demkanin, PhD., Comenius University in Bratislava: Faculty of Mathematics, Physics and Informatics.

The dissertation is focused on the integration of outdoor experiments into the teaching of physics for high schools. The integration of outdoor activities into teaching is beneficial not only for pupils but also for teachers. Pupils strengthen their social relationships, have a positive impact on their health, deepen their learning skills, develop scientific skills. Students develop their thinking differently than in the classroom, linking the curriculum they have learned in classroom with the outside world, which makes benefits for them into their daily lives. Teachers must use a different approach to pupils in the outside than they use in classroom, which leads them to their professional growth. As part of the work, we carried out a series of activities in an outdoor environment with high school students. From the subsequent analysis of the course of these activities, feedback from students and available literature, we created models of the inputs by which the teacher can achieve that the external activity is an effective educational method.

Key words: outdoor learning, outdoor activities, outdoor experiment, physics teaching, scaffolding