

## **Abstract**

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The main research problem of the presented dissertation thesis is the implementation of mobile technologies (smartphones and tablets) in the teaching of physics. If we talk about the use of mobile technologies in teaching, then we are talking about the mobile learning. In this work we have provided definitions of this term from the available literature. Part of the work was also the creation of activities and methodological materials that use mobile technologies and whose content fits into the State Educational Program. The research part of the work is focused on the analysis of the current situation of using digital technologies in teaching physics by teachers and students, verification of our proposed activities using mobile technologies in practice and the impact of using these technologies on the teaching process in relation to teachers and students. We described the current situation of using digital technologies in teaching physics based on the results of a questionnaire survey. In the work, we also conducted a survey through an online interview. Based on the results of this survey, we formulated the advantages and disadvantages of using mobile technologies in teaching physics, which were mentioned in interviews by survey respondents. We also presented the principles that should lead to the successful implementation of mobile technologies in physics teaching.

### **Keywords:**

mobile technologies, mobile learning, activities and methodological materials, implementation of mobile technologies, teaching physics