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Computer Simulation in Learning Physics as a Useful Teaching Method – a Report of Research

Abstract

This paper aims to present results of the research into an influence of the computer stimulation on training selected intellectual skills of students, during the process of learning physics in secondary school. The results show that by applying at the same time, a computer simulation and an actual experience, students may improve their analytical and creative thinking skills, as well as they can make better use of information technology. Furthermore, there is a higher level of understanding physical phenomena by students in this way of teaching, than in teaching by using only actual experiences.

Key words: *computer simulation, learning of physics, solving problems, individual work, natural pedagogical experiment*

1. Introduction

The modern education aims to train students in such a way that they are able to take an active part in analyzing and solving problems. They are taught to search for, organize and make use of information from various sources. Students are supposed to know how to make use of information technology in education and daily life. It is a significant change in comparison to the traditional school, which focuses on giving students as much information as possible. This is the essence of students' aspiration to function in an information and education society, in which a key factor is knowledge. That is why, the teacher's main task is to teach students how to make use of information technology in their life and education. As a consequence,