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USING THE INFORMATIONAL AND COMMUNICATIONAL TECHNOLOGIES DURING THE PHYSICAL EXPERIMENT IN THE COURSE OF GENERAL PHYSICS

One of the main direction of educational reform is computerization of the educational process. It is explained by the fact that informational technologies become the main driving force of society's development. Effective using of the informational technologies seriously effects in the industry, value and quality of education, the capacity for innovation in economic and social fields. The effectiveness of computer technologies in education is due to broad opportunities provided by computers and multimedia. Besides, computer education gives the opportunity to enlarge the amount of processed information because it is given in more generalized and systematic form.

At different stages of the development of computer education to the forefront are the various problems. The great attention should be payed not traditional problems of psychology, but problems of creating of effective educational systems with the help of which the study of traditional psychological problems plays only a supporting function, that allows us to clarify the effectiveness of any educational system, but not peculiarity or attention of students' thinking in the condition of computer education.

On the base of the result of the research the following conclusions have been done. According to methodical prerequisites of using informational technologies in the educational process, we can talk about the great potential possibilities of improving the quality of teaching in universities. The using of laboratory facility in conjunction with a PC allows to have physical experiments in real time, to observe the phenomenon to see its model at once, change parameters and record the changes of character of the processes. It is very good for mastering new physical concepts and understanding of physical phenomena and processes. Taking into consideration didactic principles of visibility and accessibility, there have been defined the didactic principle requirements for demonstration experiments. We can say that requirements to them are the same those requirements for demonstrational experiment with definite specific requirements. Using computer in physics lessons reduces appearing the systematical and random error during observation and counting. In comparison with many stages variant of data processing in classical understanding is a great difference. From the viewpoint of safety the suggested in the work the variant of physical experiment does not inferior to the traditional because of using experimental setting which consists of usual elements. The using of personal computer is quite safe so as PC is quite natural in our life and it's using in physics lessons is quite permissible.