

How to study the phenomena of nature in the future

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The technology of Internet has reached the stage of development, and we can expect it to spread even further, so we can count on it extensively in the field of education. Making experiments is a fundamental, indispensable method of science and education. We wonder how the irresistible e-learning will effect these methods in the future, which can make connection between the phenomenon and the person who wants to observe nature. E-learning and distance learning form of education may require that students should be able to make experiments without having experimental tools at hand.

It is beyond dispute, that the computer simulation is a really effective tool in the fields of studying and showing of nature, so it can be a useful method in education, as well. The extent to which it can be applicable depends on the mathematical model on which the simulation is based.

Just imagine how we can get to know the reality only through studying the virtual world. This contradiction originates from the modelling itself as a method, as every model can only represent the image of reality from a certain point of view. It is our responsibility to apply appropriate models.

There is another way to show the phenomena of nature. A video recording may be more applicable to show phenomena but at the same time it is possible to transmit them in electronic form. Although, the recordings fix pictures of real phenomena they can not reflect the quantitative changes at the required promptness. Consequently, they can be used for demonstrative purposes and can not be used for the numerical representation of the results of the experiments.

Our aim was to study how to make such video recordings, which can partly replace the experimental measuring carried out in different fields of education.