PHYSICAL AND MATHEMATICAL SCIENCES

FEATURES OF ORGANIZING A REMOTE TEACHING PHYSICS

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Introductions. In the context of unpredictable social challenges, broad distance learning is becoming an important tool for students of Higher Education Institutions to access high-quality educational services. Therefore, the problem of substantiating the methodological features of distance learning in specific disciplines, taking into account their specifics, becomes relevant.

Aim. The aim of the study is to determine the methodological features of the organization of distance learning in Physics for students of Higher Educational Institutions.

Materials and methods. Using theoretical analysis and generalization of practical experience, methodological features of the organization of distance learning in Physics are highlighted.

Results and discussion. The use of distance technology for teaching Physics has certain features related to the specifics of the discipline (lectures with a demonstration physical experiment, practical and laboratory classes, independent work of students, individual homework, educational and research projects, etc.). At the same time, special attention should be paid to practical and laboratory classes in Physics, since they provide the formation of practical skills and abilities as the basis for the professional competence of future specialists. Therefore, during distance learning of Physics, it is necessary to create conditions when students independently

or under the guidance of a teacher conduct a simulation experiment to consolidate theoretical knowledge gained in lectures and acquire practical skills.

The means of implementing a physical experiment during distance learning are specialized software environments-simulators, virtual digital laboratories. If a real physical experiment cannot be modeled in a virtual laboratory, it is advisable to use training demonstrations of physical phenomena and processes in synchronous or asynchronous modes, for example, video broadcasts of the implementation of the experiment from the laboratory or videos from educational resources (training video of the physical experiment from YouTube, TedX). Modern IT makes it possible not only to demonstrate the process of a physical experiment, but also to record the results of real measurements of physical quantities. Therefore, in the context of distance learning, it is advisable to use this approach to form students' skills to take readings of measuring devices, calculate the operation, and formulate generalizations and conclusions [1].

Conclusions. When organizing distance learning in Physics, it should be taken into account that the usage of a virtual physical experiment should be didactically appropriate (optimal content, form, duration, frequency of use), and also implies a high level of formation of digital literacy among students and teachers, the constant development of which is a condition for the effectiveness of distance learning in general, and Physics in particular.

REFERENCES

1. Holovko M. V., Matsiuk V. M., Rudnytska Zh. O. Organizational and methodological features of the implementation of distance learning in Physics in higher education institutions. *Naukovi zapysky*. Kropyvnytskyi, 2023. V. 1, № 208 P. 23–31. (in Ukrainian).