

## **APPLICATION OF STEM TECHNOLOGIES – LEARNING IN THE PROCESS OF PERFORMING TEST TASKS "STEP-1. PHARMACY"**

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To date, the scientific and technical system of STEM education is the most innovative and gaining popularity all over the world. The possibilities and directions of STEM education during the war are of particular importance due to the need for an increasing transition to distance learning with the use of digital technologies to ensure the security situation and preserve the health of students. The functioning of the education system in the conditions of martial law is characterized by an intensive search for new approaches to learning, innovative forms of organization of the educational process, effective pedagogical and information technologies. Test control as a means of optimizing the educational process has become widespread in universities. License integrated exam system "Step 1" is a set of tools for standardized diagnosis of the level of professional competence, which is a component of the state certification of pharmacist students. An urgent problem at the current stage of reorganization of higher pharmaceutical education is the creation of high-quality test tasks. An important condition for quality assessment of knowledge and skills is teachers' knowledge of methodological principles of testing and the ability to implement them in the process of writing test tasks. The lecturers of the Department of Biochemistry and Medicinal Chemistry of the Dnipro State Medical University participate in the creation of test tasks in analytical, physical and colloidal chemistry for the further formation of the test database "Step-1. Pharmacy".

When creating test tasks, we try to follow a number of important rules. Developing high-quality testing tools is a long and time-consuming process. Unfortunately, databases and booklets for the licensing exam often contain low-quality and incorrect test tasks that are not suitable for clarifying the knowledge of pharmacy students. There are questions with ambiguous wording, double correct answers are possible (both are used as distractions).

The pursuit of the number of new test tasks has led to the fact that their preparation is carried out by teachers without sufficient pedagogical experience, and sometimes without thorough knowledge of the educational discipline. The development of the test should begin with the formulation of its purpose, the specification of knowledge, abilities and skills, that is, the determination of what the test should measure, after which the development of the test specification takes place - a set of descriptive schemes that help determine the correspondence of the test tasks to the content of the test work. A test created without developing a specification can

be overloaded with random material, inconsequential details. In our opinion, when creating test tasks, it is necessary to select the optimal number of tasks that provides a relatively accurate determination of the level of knowledge formation. The content of the test should include only the test material that the student learned during the study of the academic discipline, and also correspond to the current level of science. The correctness of the content of the test tasks is mandatory, it is desirable to give unambiguous answers to simple questions and it is not necessary to describe them with complex language constructions. Since a student takes an average of one minute to solve one test, teachers should compose them in such a way as to avoid ambiguous wording that complicates the student's reactive actions. It should also be noted that the test questions should not be focused on the reproduction of information, but on the ability to apply it for logical conclusions and decision-making. The validity of the test is important, namely its logical determination: the question is determined whether it can be answered positively or negatively. When creating tests, it should be taken into account that the correct answer is no longer and more elaborate than the incorrect ones, the appropriate grammatical construction of the answers, we try not to include in the correct answer a keyword that is also in the question. The content of the test task should not be overloaded with secondary terms, the condition of the test work should be correct, clear, informative and unambiguous so that all students understand the content of the question.

At the same time, test tasks cannot be too cumbersome and too simple at the same time. It is desirable to use the most typical errors as distractors (wrong answers). Therefore, testing, as a method of monitoring and evaluating the success of pharmacist students, can be effective only under the condition of proper theoretical and methodological justification.

## **References**

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