

## **СИСТЕМА ТЕСТИРОВАНИЯ ПО ПРЕДМЕТУ НАЧЕРТАТЕЛЬНАЯ ГЕОМЕТРИЯ**

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**Аннотация:** В данной статье рассматриваются совершенствование теории и методики преподавания начертательной геометрии на основе новых информационных технологии обучения активизирующих учебную деятельность студентов и развивающих их творческие способности, в этих условиях большое значение имеет определения того, какие из новых методов обучения дают наибольший эффект для преподавания начертательной геометрии.

**Ключевые слова:** Научно обоснованных, эффективный способ, учебный процесс, система тестирования, входной тесты, текущий контроль, тестирование в компьютерной форме, итоговая успеваемость, стандартизированные тесты, сравнения успеваемости, новая информационная технология.

## **ЧИЗМА ГЕОМЕТРИЯ ФАНИДАН ТЕСТ ЎТКАЗИШ ТИЗИМИ**

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**Аннотация:** Ушбу мақолада чизма геометрия фанини ўқитишда янги ахборот технологиялари асосида назария ва методикани юксалтириш, талабалар ўқув жараёнини фаоллаштириш ва уларни ижодий қобилиятларини ривожлантиришни амалга ошириш, шунингдек бундай шароитда чизма геометрия фанини ўқитишда қандай ўқитиш методлари каттароқ самара ва аҳамиятлилигини аниқлаш ва келажакда уларни ўқув жараёнига татбиқ қилиш масаласи келтирилган.

**Калитли сўзлар:** Илмий асосланган, самарали усул, ўқув жараёни, тестлаш тизими, кириш тести, кундалик назорат, компьютер шаклида тестлаш, якуний ўзлаштириш, стандартлаштирилган тест, ўзлаштиришни солиштириш, янги инновацион технология.

## **DRAWING SYSTEM FOR TESTING ON THE SUBJECT OF GEOMETRICS**

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**Annotation:** In this article, the issue of raising the theory and methodology on the basis of new information technology in the teaching of the science of drawing geometry, activating the educational process of students and the implementation of their creative abilities, as well as determining the greater effectiveness and importance of what teaching methods in the teaching of the science of drawing geometry in

**Key words:** scientifically based, effective method, educational process, testing system, entrance test, Daily control, testing in computer form, final mastering, standardized testing, comparison of mastering, new information technology.

Drawing geometry is one of the fundamental educational sciences, develops visual thinking, as well as shapes the intuitions of future professionals, which is necessary for any engineering and scientific creativity. The emergence of new disciplines in the curricula of higher technical education institutions, the subject of Descriptive Geometry

the reduction of the allocated hours raises the question of optimizing the size of this fan, taking into account modern requirements. This will require the use of modern and science-based techniques to control daily and final knowledge. According to many experts in the field of pedagogical qualimetry, to date, an ineffective, ineffective, uneducated approach and evaluation of the results of pedagogical activities hinders the development of the education system.

One of the most scientifically based and effective ways to control knowledge is testing. This method has a number of advantages over traditional oral and written control, the disadvantage of which is the high organizational difficulty, the limited time to check a large amount of work, the presence of a subjective and psychological factor. A comprehensive approach is needed in the implementation of the test system in the educational process. If the intermediate results are studied systematically, then the probability of achieving the expected result is high. To achieve these goals, it is necessary to make extensive use of access tests. They inform teachers about the level of preparation of students in the early stages of science teaching. The specialization of higher education teachers is focused on a specific subject, and in most cases they work with students for only one semester. Introductory tests in the science of descriptive geometry should be designed to determine students' spatial thinking skills. If the results of the entrance tests are unsatisfactory, then it is necessary to pay more attention to the topics of introductory lectures and projection, so that it is not possible to move on to the study of subsequent sections without understanding the basics of science.

It is also necessary to develop the necessary tests to increase the effectiveness of the educational process in higher education. They are aimed at shaping the teacher's perception, shaping and diagnosing daily monitoring, and identifying problems in preparation and their causes.

Testing on topics allows each student and the whole group to determine their progress in learning the material. This allows you to focus on more difficult topics when adjusting the learning process. At the same time, the teacher also has the opportunity to take an individual approach to teaching each student and give different assignments based on the results obtained.

Most importantly, after organizing the test with the students, or discussing the test results, it is necessary to conduct a personal interview with the students or to identify mistakes in the test and find out their causes, with the participation of all students in the group. In many cases, we choose the second way, because, as a rule, after the test there are "typical" mistakes that many students make, which in turn requires discussion and analysis of the results within the team.

Computer-based instructional tests are very effective in this regard, after a student completes an assignment incorrectly, or is provided with a fragment of electronic literature on the same topic or a solution to a similar problem. After the topic is studied, the student is given the opportunity to solve the problem again if it causes difficulties.

Often, the effectiveness of a teacher's work is assessed after students' final mastery. In this case, the measure of mastery (final control work, oral assessment, etc.) is different for each teacher. Therefore, in order to assess the effectiveness of their work, it is necessary to use unique tests to measure the level of mastery of the material for all students studying this subject.

Standardized tests will be the result to compare the mastery of students of different specialties of the same university as well as to compare the same specialists of different universities.

The main purpose of the final test is to provide an objective assessment of learning outcomes after the end of the course. Depending on the goal achieved, it is possible to draw conclusions about the need for additional training, the effectiveness of the teacher's work or the effectiveness of teaching different programs to a group of teachers in the department.

Like all technologies, testing is based on scientific advances. He must have a thorough preparation of test takers, if he intends to prepare and implement pedagogical tests, first of all he must have a deep knowledge of the strict requirements and mathematical apparatus applied in the field of pedagogical measurements. Precisely untested, untested tests are capable of giving erroneous results, so using them will be a back step rather than a front step.

A poor test may not meet the requirements that define certain characteristics of this or that quality criterion, and may serve as a negative source of student knowledge. At the same time, this impression cannot be corrected during the testing process, unless, of course, the testing process is organized in a way that is compatible with the majority. Hence the need to scientifically substantiate the quality of test materials and mathematical-statistical processing of test results. It will be necessary to work in a direction that complements the scientific substantiation questions threefold. The first is to justify the choice of test content, the second is to bring the form of the task to the level of test requirements technology, the third is to direct the task to the systemic organizing property, to determine the results by processing the empirical presentation of tests based on analysis.

When creating a test, first of all, it is important to choose the content of the questions, which will determine the question in the test system, which will optimally reflect the content of the subject. The requirement for optimality should include questions about the use of a particular methodology of selection, a targeted approach, planning, and quality assessment of test content.

In forming the database of test tasks, it is necessary to take into account the technological requirements of the test description and the choice of distractors. These issues have been studied in detail in the work of many foreign and domestic educators.

The peculiarity of the science of descriptive geometry is that students must learn to work with graphical problems in drawing, for example, situational and dimensional, so they are required to complete the drawing to answer more than half of the test tasks proposed by us.

The process of scientifically substantiating test quality is divided into three stages: The empirical results of testing are the collection stage and the first initial step. The second stage is the processing of empirical data and the third stage is the interpretation of the processed issues. The purpose is to bring the level of testing to a certain quality criterion. Objectivity, reliability and timeliness are among the required criteria. The application of new information technologies

allows to make the most of all the advantages of testing, as well as makes knowledge control effective and inexpensive. The form of testing proposed by us depends on its purpose and the technical equipment of the department, the questions of software development are considered, the test is given in the following form:

- blank, manual check and automatic processing of results;
- automatic check of blanks, response forms and automatic processing of results;
- on the computer.

The first form is much preferable, it is used in cases where the teacher does not have a high-speed scanner and does not have a computer system for processing test forms and computer recognition.

In this case, the teacher checks the forms and sets the grades manually, then the ability to create scales and increase the tests is sharply reduced, or the exam takes into account the assignments and the key to answer options in a specially designed program, it releases grades and analyzes the task description and the test in general. allows you to determine.

In the second form, an “automated complex based on blank testing for knowledge control” has been created to implement knowledge control, which allows participants to automatically register (if necessary), scan and identify blanks; processing of results at the required level of reliability, publication of final accounts; and static analysis. Currently, research is being actively conducted in the field of automation of university documents, the development of a database, which tracks the mastery of students from the beginning to the end of their studies. Therefore, the computer and blank testing system should be able to transfer the results only to the accounts and external database data.

Working with tests can be organized in a variety of ways depending on the purpose for which they are used.

#### LIST OF SOURCES USED:

1. T.D. Azimov, D.U. Sabirova "Collection of tests on descriptive geometry on the topic "Point" - TASHSTU, 2007, 42 p.
2. D.U. Sabirova, M.M. Yakubova Piece geometry of ventilation "body" theme " on the storm test. Tashkent, 2006, 42
3. T. D. Azimov, V. T. Mirzaraimova collection of tests on the exchange rate of the currency "Engineering graphics", 1-part-T Tashstu, 2007, 32 P.
4. M.V.Polezhaeva et al. Testing system for the discipline “Descriptive geometry”. Successes of Modern Natural Science, - 2006, -No. 10 - pp. 77-80.