Involvement of Students in the Performance of Test Tasks and Conducting Control Work in the Lessons of Descriptive Geometry and Engineering Graphics

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ABSTRACT

The article describes the existing problems and their solutions and theoretical foundations in the design and organization of test items for independent study of students in the field of "Descriptive Geometry and Engineering", the assessment of students with test items and the formation of knowledge, skills and abilities.

Keywords: To the Methodology, Authenticity, Reliability, The Inevitability Of Passing The Test Control, The Mandatoryness Of Which Motivates The Student

Introduction

The current level of development of the state, society, science and industry determines the need for students to organize independent work in the process of training professionals. In the system of higher education, the issues of application of didactic materials in the form of tests in the educational process are improving. The high level of competition among test takers has highlighted the importance of identifying opportunities for higher education institutions to develop their intellectual ability to develop test assignments [1,2,3].

Based on the different forms of education, there is a need for work that prioritizes higher education as a new condition for the preparation of test assignments. Accordingly, the demand for specialists and increasingly new and technologically advanced media and multimedia products is determined by global development [4,5,6,7]. The introduction of innovative methods based on information technology, the teaching of practical knowledge and a student-centred approach to students in technical higher education institutions have become relevant. The solutions to the above problems are given in the article [8,9].

Literature revive

Many researchers have suggested in their research that the solution to these problems is based on the organization of human-independent testing and testing processes in higher education institutions, as well as their assessment processes. We can cite the results and recommendations of scientific research on the organization and conduct of testing processes by I.E. Alexandrovna [10,11]. His research focuses on the fact that the requirements for testing are mainly related to information and communication technologies, and the delivery of tests to students using only

simple types of tests (only one correct answer). Of course, these methods have their drawbacks and problems. Subsequent problems have been partially addressed in E.A. Ilina's research [12,13].In his scientific views, the design of test materials, and statistical processing of the results of pedagogical control; highlight that minimizing time is of great benefit to the student in the learning process. The results of the above-mentioned research lead to the conclusion that the pedagogical skills of the teacher in the organization of test processes, as well as the competence of excellent knowledge of information and communication technologies, and the assessment of students in the process of assessing the expediency of a transparent organization without the involvement of the human factor.

Materials and methods

In the process of teaching "Descriptive Geometry and Engineering Graphics", it becomes more difficult for students to master the subject. This is because in order for students to master science, they must first have spatial imagination and practical knowledge. With this in mind, one of the main tasks of a modern educator is to organize lessons using a variety of didactic processes, methods and pedagogical technologies for students to master the subject. However, in the assessment of students' knowledge and subjects, the teacher is not limited to the perfect organization of lessons, that is, it is a subjective factor that affects both the student's interest in science and mastery. There are two mandatory components when students complete test assignments:

1. When test assignments are given to students to work independently, to form the knowledge that students have mastered the subject perfectly.
2. Checking the level of formation, that is, monitoring the knowledge and skills of students.

One of the most effective control tools in strengthening the subject of "Descriptive Geometry and Engineering Graphics" is the completion of practical assignments, independent study and, of course, test assignments. Let's take a look at the test method used to reinforce the subject of Descriptive Geometry and Engineering Graphics. Tests are not only a practical form of control but also an indicator of the level of mastery of the scheme of increasing students' interest in science by means of tests, the strengthening the acquired knowledge [12-14].

In the subject of "Descriptive Geometry and Engineering Graphics" the human factor is involved in the implementation of forms of practical control. And most importantly, it takes a long time to verify the test results. The main difference between science tests and practical tests is that the test always includes a measure of mastery. Test evaluations are more objective and independent than practical control assessments, and of course, testing has clear advantages. Our research shows that the benefits of testing include: There are many types of tests available today, but for professors and teachers who work with students in the teaching of specialities and graphic sciences, due to the specificity of the lecture materials, independent and simple test tasks to strengthen students' knowledge. depending on the type of test, ie the level of mastery of the students. Therefore, the teacher should pay attention to several factors when preparing test assignments, namely:

- test methodology;
- the basics of spatial imagination and the formation of practical knowledge and skills
- to apply knowledge, skills and abilities in practice
- know the requirements for the preparation of test assignments.

There are requirements for creating test items: Test assignments should be structured in accordance with the rules and regulations of the test and should have the following characteristics: authenticity, reliability and practicality.

Reality is the ability to effectively control students' skills and abilities through structured test assignments.

Test reliability - is characterized by the stability of its results during testing of test tasks under the same conditions. Practicality is the availability and robustness of test instructions

and the content of assignments for students to understand. Professors should conduct tests according to a different plan by creating test assignments based on the requirements.

There are also different classifications of tests in the field of "Descriptive Geometry and Engineering Graphics":

- entrance tests to help determine the level of knowledge of descriptive geometry;
- Achievement tests aimed at determining the performance of a student in a particular section from a scientific point of view;
- Final tests at the end of the course to check the achievement of learning objectives.

Test topics should be based on topics that the student is familiar with and has mastered. The choice of topics should depend on the level of preparation of students for a particular course. To date, the introduction of the credit module system in higher education institutions has led to a significant reduction in students' classroom hours with the teacher.

As a result, many sections of the curriculum are designated by students for independent study. In this system, the issues of test management and their development are updated. Automated learning systems will be developed for students to work independently. Independent practice in Descriptive Geometry and Engineering Graphics is one of the most important components of learning. The goal is for students to work independently on a test assignment; strengthen the acquired knowledge, encourage the results achieved, as well as increase the effectiveness of learning and activate the system of assessment of students' knowledge by the teacher. In students, the inevitability of the assignment of test control tasks, given on the basis of the plan, stimulates the student's motivation.

Conclusion

At the beginning of the academic year, we need to give students the topics of test assignments in the subject "Descriptive Geometry and Engineering Graphics" at the university, to increase their ability to prepare for the test and work independently. As a result of independent work, the student acquires spatial imagination and practical knowledge, and through independent work of test assignments automatically monitors and evaluates without the human factor. In order to achieve these results, we used iSpring Quiz Marker 9 and Multimedia Builder programs to strengthen students' knowledge and interest in science, using the most effective way to create test assignments.

As a result, in our future endeavours, we have sought to enable students to maintain continuity in their subsequent learning as a result of their spatial imagination in the design process. Our goal is to train competitive professionals.

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