

USING MODERN EDUCATIONAL METHODS, DETERMINING STUDENTS' MASTERY LEVEL

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Uzbekistan dated March 19, 2021 " On measures to increase the quality of education in the field of physics and develop scientific research". In order to ensure the implementation of the decision , a number of works are being carried out to improve the quality of physics teaching in educational institutions, to introduce modern teaching methods to the educational process , to select talented students , and to prepare competitive specialists for the labor market . In particular, the involvement of students in the process of active learning , the main goal of which is the use of interactive methods in education . This requires cooperation between the student and the teacher. The teacher should attract students to the problems related to the subject of the lesson , activate their movement and , as a result , ensure their guaranteed mastery .

In recent times, many interactive educational methods such as " Case study", "SWOT" analysis and "Assessment " have been used in the educational process. such as Innovation educational technologies were also used .

One of the innovative educational methods The term " Assessment" when translated from English means "e s s e s m e n t " - "evaluation", "evaluation") .

is aimed at assessing the level of knowledge of learners , monitoring, mastering indicators and checking practical skills . Through this method , the cognitive activity of learners is diagnosed and evaluated in different directions (test, practical skills, problem situations exercise, comparative analysis, identification of symptoms).

This method can be used in the introductory, main or final part of the lesson , that is, in the process of giving homework . In the introductory part of the lesson, it can be used to determine the extent to which students have completed their homework or to determine the knowledge and skills acquired in the process of summarizing the topic.

Assessment " in assessing the knowledge of physics and electromagnetism department of the 2nd year students of Pedagogical Institutes of Physics and Astronomy Let 's see how to use the method . The procedure for implementing the method is as follows :

- the following handout for students in a practical physics lesson

(Table 1) is given and the rule of its filling is explained by the teacher. Students are given a certain amount of time to complete this schedule. In this case , the correct answer in each box is 5 points or 1-2 up to the credit can absorb ;

after the specified time is over and the students have completed the task, the solution of the tasks will be announced by the teacher . Students check their work based on these answers ; _ _

-students evaluate their work based on previously announced criteria .

Table 1. "Assessment" on the department of electromagnetism.

| | |
|--|---|
| <p>1. Test Talk fill in n elements plug , battery common when compiled EYuk n times ... A) ... successively ... increases ; B) ... successively ... decreases ; C) ... sequentially ... does not change ; D) ...parallel ... increases</p> | <p>3. Compare Compare the magnitudes of the ammeter and voltmeter when the measurement limit is increased</p> |
| <p>2. Symptom Kirchhoff's second the rule .</p> | <p>4. Practical skills. Matter. One of the two current sources with internal resistances of 0.4Ω and 0.6Ω has an EI of $2 V$ and the other of $1.5 V$, and the poles are connected accordingly. Find the voltage between points a and b .</p> |

Teacher solution.

1. Test. Answer: D n elements _ parallel plug , battery common when compiled EYuk n times increases

2. Symptom . Kirchhoff's second law - the sum of the voltage drops in the circuit networks of Burke is equal to the algebraic sum of the EIuKs in the circuit:
 $I_1 R_1 + I_2 R_2 + \dots + I_n R_n = \varepsilon_1 + \varepsilon_2 + \dots + \varepsilon_n$.

3.

| When connected to an ammeter | When connected to a voltmeter |
|---|---|
| The shunt is connected in parallel | The shunt is connected in series |
| Shunt resistance of the ammeter internal $ (n-1)$ times the resistance small to be need | The shunt resistance should be $ (n-1)$ times greater than the internal resistance of the voltmeter |
| | |
| | |

4. The solution of the problem is shown and the voltage between points a and b is found to be equal to $U=1.8 V$.

The "Assessment" method is used to study the current level of students' knowledge in lecture classes, to present new information , and in seminars and practical classes to evaluate the level of mastery of a topic or information , as well as It is recommended to use it individually for the purpose of evaluation. Also, by using non-standard tests in assessment according to Bloom's taxonomy, additional tasks can be included in the assessment based on the teacher's creative approach and educational goals.

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