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THE ROLE OF SCIENCE BLOCKS IN TEACHING FUTURE ENGINEERS TO SOLVE ISSUES RELATED TO MANUFACTURING PRACTICE

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Annotation
This article reflects on the need to conduct training at all stages of educational development, in connection with the practice of production. Currently, the need to carry out training in education in connection with the practice of production of natural-scientific, mathematical, universal and special Sciences is established in the qualification requirements of graduates of higher educational institutions.

Keywords: Engineer, Professional, mathematics, methodology, orientation, system, production, practice, preparation.

INTRODUCTION

In recent years, great attention has been paid to the field of Science and technology in our country. This attention is due to the fact that modern techniques and technologists require qualified specialists. The training of such a specialist is the responsibility of Higher Education. Therefore, in order for higher education graduates to master and manage modern technologies, technologies, it is necessary to have a serious education in natural-scientific, mathematical, universal and special Sciences. From this, we will cite in our article the methods, forms and means of carrying out training of Engineers in their natural-scientific, mathematical, universal and special disciplines in the implementation of their professional training in higher education.

MAIN BODY

The presence of theoretical knowledge of students studying in higher educational institutions does not mean that they have a knowledge focused on the practice of production. Only if students are able to apply the knowledge gained in different situations means that they have some kind of knowledge, skills and qualifications.
This directed ability can only be formed in the educational process, which will widely reveal the connections of all blocks of subjects in the curriculum. The possibility of these connections depends on:
-in the use of technology-technologies, many methods are widely used, adapted from the subjects taught in higher educational institutions;

- in the current period, it is impossible to carry out the educational process without relying on the knowledge acquired in higher education;
- modern techniques require users to understand deep theoretical knowledge, as well as the theoretical laws and principles of actions that form the basis of the creation and functioning of this technique.

One of the tools to apply acquired knowledge to the practice of production is to teach students to solve practical issues related to the practice of production.

Currently, the theoretical justification of the methodology for using especially practical issues in the process of teaching specialty subjects has become relevant.

We will consider the solution of practical issues in connection with production practice, as well as as the basis for the implementation of the practical training of the engineer. Focusing on the implementation of didactic functions in this, it consists in preparing students for mastering new knowledge, strengthening the topic being mastered, developing skills and abilities to use the topic being mastered, describing the practical implementation of the topic being mastered. This, in turn, indicates the need to clarify the classification of issues according to their didactic functions. Having carefully studied the problematic-research methods of teaching, we identified two types of preparatory tasks, with the help of which various methods of preparing students for studying a new topic were carried out. The first method is based on the activation of students ' knowledge (traditional in the methodology of Higher Education), the second involves the use of problematic research methods and requires the identification and formation of the problem. In the educational process, great attention will be paid to the independence of students, and it will be necessary to distinguish between tasks related to research and creative approach.

Thus, to summarize the points that are said, the exact classification of the groups of issues is as follows:

1. Preparatory issues-preparing students to study a new topic.
2. For reinforcement, issues are those that combine the materials studied, i.e. definitions, concepts, formulas, methods of proof, etc.
3. Trainings-issues aimed at the formation of skills and abilities. When solving this type of issue, students must apply a certain algorithm, general method and traditional solution.
4. Research-related issues are those that contribute to the strengthening and deeper study of the topic under study, requiring students to use non-standard solution methods, a combination with several traditional methods, the use of certain algorithms in non-standard situations.

5. Creative issues-issues that contribute to the formation and development of research skills. In this type of issue, the goal may have been identified. Their clarification is carried out in the process of solving the issue. To achieve this goal, the necessary condition, method and set of tools must be determined independently by students.
6. Control tasks-issues necessary to clarify the level of student assimilation of the studied material. These types of issues are provided for control, independent work.
Currently, in the process of training future engineers, it is observed that natural-scientific and mathematical courses are separated from technical subjects. This separation is so deep that learners cannot see objects known to them in a real situation, thus not being able to use acquired natural-scientific and mathematical knowledge to describe this situation. In practical training, issues related to production practice are rarely solved, so that the skills of graduates to solve such issues are not formed. Several that prevent the active use of issues related to production practices:
- insufficient allocation of places for them in textbooks and teaching aids;
- lack of time necessary to solve them in the educational process;
- insufficient training of students from the school mathematics course;
- we can show reasons such as the fact that the existing stereotype of teaching a mathematics course does not always allow educators to flexibly react to changing requirements and include practical issues in the learning process.

CONCLUSION

Summarizing all of the noted, we can draw the following conclusions:
1. Analysis of the main stages of educational development has shown that the purpose of education is a category of social importance, since it depends on the social context. The history of Higher Education testifies to the fact that at different periods of development, educational goals have changed and replenished in accordance with the prevailing social goals and worldview.
2. Most researchers have raised the issue of the need to direct the use of the most advanced ideas at all stages of educational development, including the practice of teaching mathematics. Currently, the problem of associating mathematical training with production practice is a high level of occupation, which is established in the state educational standards in the qualification requirements for a graduate of a higher educational institution.
3. Based on the principle of directing education to the practice of production, the main ways of carrying out the orientation of the mathematical training of the engineer to the practice of production have been identified.

4. It has been found that the combination of methods, forms and tools at different stages of teaching mathematics - contributes to the implementation of the orientation of the engineer's mathematical training to practice.
5. One of the means of implementing the connection of mathematical training with the practice of production at a higher educational institution is the use of interdisciplinary connections of mathematics with general and special disciplines.
6. The use of practical issues related to all types of production practices within the framework of the mathematical training of the engineer helps to systematically and purposefully implement them in the educational process.
We believe that it is important to create a system of Applied issues related to production practice and justify its use in activities outside different audiences and audiences.

REFERENCES

1. Aliqulov T., Movlonov M. IKKINCHI TARTIBLI EGRI CHIZIQLAR MAVZUSINI TALABALARNING MATEMATIK KO'NIKMALARINI RIVOJLANTIRISHNING OMILI SIFATIDA DASTURIY VOSITALAR YORDAMIDA O'QITISH //Oriental renaissance: Innovative, educational, natural and social sciences. – 2021. – T. 1. – №. 3. – C. 312-319.
2. Movlonov, M.Q "Professionally-oriented tasks in teaching mathematics using visual modeling technology". European Journal of Research and Reflection in Educational Sciences, 8 (5), 107-109. (2020).
3. Qalandarovich, Movlonov Maruf. "The role of subjects in teaching future engineers to solve problems related to production practice." ACADEMICIA: An International Multidisciplinary Research Journal 11.4 (2021): 158-161.
4. M.K.Movlonov "Matematikaning fanlararo aloqalarida kasbga mo'ljallangan vazifalarni yechishning metodik ta'minoti". Ta'lim, fan va innovatsiya jurnali, 2019/4-son,105-108b.