PEDAGOGICAL PROBLEMS AND SOLUTIONS IN PEDAGOGICAL INSTITUTIONS OF HIGHER EDUCATION

Sarvinoz Yashinovna Eshonkulova
Teacher of the Interfaculty Department of Foreign languages, Chirchik State Pedagogical University
s.eshonqulova@cspi.uz

ABSTRACT

This article discusses about pedagogical problems and solutions in pedagogical higher education institutions.

Keywords: teaching conditions, tasks, educational technologies, problem situation.

In the current conditions, there are some difficulties in organizing practical training in electrical engineering for students studying in technical, natural-mathematics, including physics and astronomy, as well as technological education areas of higher educational institutions of pedagogy. The conducted observations showed that one of the main reasons for this is that students with different levels of preparation in physics and mathematics and initial experimental skills study in such groups where practical training is conducted. In addition, in groups there are always students who are capable of experimental work and, conversely, those who are not inclined to experimental work. Nevertheless, it is absolutely necessary for students of pedagogical higher education institutions to acquire the skills of conducting experiments. In general secondary schools, academic lyceums and vocational schools, every teacher is not limited to teaching students only the basics of science, but also to strengthen their polytechnic level, to be able to apply the acquired knowledge to life, and for their practical activities. they should create conditions. The science of electrical engineering occupies an important place in the polytechnicization of education. The "Electrical engineering" department occupies an important place in this field, because electrical devices are widely used in life and technology.

In order for the students to have the required level of knowledge about the basic laws and regulations related to each topic of electrical engineering, the teacher should conduct experiments on this topic in addition to oral presentation of the training materials, they should observe the studied phenomenon. it is necessary to bring them to them and

develop their thinking activity in this regard. In the process of practical training in electrical engineering, it is the most promising method of strengthening knowledge of electrical engineering, increasing the quality of professional and experimental training. One of the main goals he has set for himself is to form the experimental skills of future teachers by teaching a certain measurement method and the correct analysis and interpretation of measurement results.

The following should be noted as the general issues of the practice: support for the optimal implementation of general issues in education (development of thinking, formation of cognitive abilities, etc.); to ensure the systematicity of knowledge in electrical engineering, to establish links between topics, departments and subjects; generalization and strengthening (deepening) of knowledge on the most important issues of electrical engineering science; to help in the implementation of polytechnic education (introducing students to technical devices, teaching methods of determining quantities found in technology, etc.).

When conducting practical training in electrical engineering, the following goals are envisaged: a) to help students master the basic laws and phenomena of electrical engineering; b) teaching students to creatively approach scientific and research work, to be able to choose the right experimental method, to measure the values of technical quantities and to compare them with theory, to draw conclusions; v) introducing modern equipment and methods of mathematical development of measurement results. g) formation of skills of analysis, conclusion and generalization of obtained values and achieved results.

This is the general goal of students during experiments depending on the level of knowledge, it is done in different ways in each concrete case is increased.

The issues put before the students performing experimental work can be in the following forms: designing experiments with the help of information and communication technologies (guarantees the efficiency, achievement of the goal in advance): a) the most suitable method of measuring magnitude and measuring devices complex is shown to students; b) the measurement method is shown, the student must choose the necessary tools for measurement; s) the student is required to measure a certain quantity with the indicated accuracy.

Data obtained from an experiment will always have some degree of error. This error is mainly caused by experimental conditions, imperfection of measurement method or instruments. Due to the natural error of the experimenter's senses and the imperfection of measuring instruments, approximate values of quantities are determined in any measurement. Accuracy of measurement is determined primarily by the accuracy of

measurement of measuring instruments. Magnitude cannot be measured with greater accuracy than the measuring accuracy of the instrument.

In each practice, different quantities are measured with different precision. The accuracy of one measurement affects that of others. Only when the errors are calculated, the result of the measurement, that is, the data obtained from the experiment, begins to acquire a certain meaning. The result of the experiment made in this way can be compared with theoretical or tabular data. It is important to be able to choose from a number of methods of calculating errors, especially those that correctly and clearly reveal the essence of a concrete experience. This creative process requires the student to have certain experimental skills, thoroughness, and logical analysis skills.

In order to organize, conduct and demonstrate experiments, it is possible to list the following skills and qualifications that a teacher should acquire: - managing cognitive activities of students in the process of observing and learning; - to observe phenomena, to study the research method qualitatively and quantitatively, to introduce the theory, to confirm the conclusions of the theory, to find solutions to problems such as the application of laws to practice with the help of experiments; - to successfully demonstrate the experience, to work with tools, to assemble the device and to perform the work in compliance with certain requirements for the correct and accurate conduct of the practical training experiment.

Knowing the tools means the following skills and abilities:

To know the name of the instrument, what quantity it is intended to measure, the principle of operation and its main features; 2) to be able to distinguish this tool from other tools in terms of appearance; 3) to know the technical capabilities of the tool, the characteristics of its use; 4) to be able to use the tool and to have the skills to coordinate it with other tools; 5) to know the conditions that allow to get the desired result; 6) to acquire the skills of simple repair work, replacement of small details, correction in case of deviations from the norm.

Demonstrates mastery of apparatus assembly skills, laboratory and demonstration experiment techniques. In this case, it is important to fulfill the requirements for the process of experiment implementation and to use efficiency-enhancing tools effectively.

In practice, certain rules for assembling devices have been developed, which include the following: a) mental construction (design) of the device, drawing of structural schemes, block layout of devices, auxiliary drawings; b) selection of tools necessary for the experiment; c) assembling the device: placing the devices in a logical sequence on the laboratory

table, combining the device elements (in demonstration experiments, as a rule, the device is assembled in an inclined or vertical plane, the most important devices are recommended to be in the front row); g) checking the fulfillment of the requirements for the experiment, taking into account various tools; d) development of a sequence of actions in demonstration of experience.

Observing the activities of students in practical training in electrical engineering shows that there are a number of shortcomings in their experimental preparation.

First, it is necessary to educate the student's conscious attitude and interest in the experiment as a research and teaching method. The student should know the function of the experiment in the educational process and understand its role in providing them with deep and thorough knowledge. This issue can be successfully solved by strengthening the cooperation of teaching methods teachers.

Secondly, if the teacher shows the student different options for the same experience, the student will have the opportunity to choose the most optimal one among them. Depending on the variety of experiments, the possibility of a laboratory base for student practical training (the teacher may also have to make some simple devices by hand), the ability to choose experimental equipment and assemble the device independently. helps the formation of skills. Regular work in this direction makes it possible to educate students' constructive ability, creative approach to educational experiments.

Thirdly, students should write down the purpose of each experiment in a notebook, and form the skills of drawing the scheme of the experimental device, showing the parameters of the tools used. This creates a basis for their independent and creative organization of experiences in their future practical work (including pedagogical practice).

Fourth, students should learn the basics of modern school equipment and tools and acquire the skills to use them according to their assigned task.

Fifth, the skills of identifying and eliminating malfunctions in devices, independently designing some devices and making them by hand, and involving students in this should be formed already in their student years.

CONCLUSION

In practical training, students acquire the following theoretical-experimental information: introduce the basics of technical phenomena and their laws, develop skills and competences in working with modern measuring instruments, methods of measuring and

processing experimental results. introduces. In addition, in close connection with lectures, seminars and other forms of electrical engineering education, it fulfills the tasks of generalization, strengthening, development and in-depth mastering of the main states of the theory. Practical (laboratory) of electrical engineering solves a number of educational, practical and educational issues.

REFERENCES

1. Aripov X.K., Abdullayev A.M., Alimova N.B., Bustanov X.X, Obyedkov Ye.V., Toshmatov Sh.T. Elektronika. Darslik. - T.: «Fan va texnologiya», 2011. - 428 b

2. Каримов А.С., Ибадуллаев М., Абдуллаев В. Педагогиканинг назарий асослари (дарслик) 1-қисм. –Тошкент: «Фан ва технология»,2017.- 324 б.

3. Makhamatkhujaeva G. U., & Shukhratova Z. S. (2023). TRANSLATION PROBLEMS OF INTERNATIONAL WORDS. *Web of Teachers: Inderscience Research*, *1*(8), 87–89.

4. Shukhratova Z. S., & Makhamatkhujaeva G. U. (2023). Classification of Phraseological Units in English and Uzbek Languages. *Journal of Pedagogical Inventions and Practices*, *26*, 16–18.

5. Sobirova, M. G. (2023). TEACHING STUDENTS OF DIFFERENT LEVELS IN THE SAME CLASS. *Web of Teachers: Inderscience Research*, *1*(9), 147-149.

6. Sobirova, M. G. Q. (2023). PROSPECTIVE TECHNOLOGIES OF DISTANCE EDUCATION. *Academic research in educational sciences*, *4*(CSPU Conference 1), 777-779.

7. Eshonqulova, S. Y. (2023). The Problem of Readers' Perception of “Difficult” Literary Texts. *Web of Technology: Multidimensional Research Journal*, *1*(6), 22-28.

8. Maxamatxo’jaeva, G. U. (2022, November). OZBEK TILIGA O ‘ZLASHGAN SO ‘ZLAR TARIXIDAN. In *INTERNATIONAL SCIENTIFIC CONFERENCE" INNOVATIVE TRENDS IN SCIENCE, PRACTICE AND EDUCATION"* (Vol. 1, No. 3, pp. 127-130).

9. Maxamatxo’jaeva, G. U. (2022). OZBEK TILIGA INGLIZ TILIDAN OZLASHGAN VA O’ZLASHAYOTGAN SOZLAR HAQIDA BAZI MULOHAZALAR. *Results of National Scientific Research International Journal*, *1*(8), 46-49.

10. Eshonkulova, S. Y. (2021). APPLYING ELEMENTS OF THE CLIL METHOD IN ENGLISH LESSONS. *Theoretical & Applied Science*, (6), 482-485.