

**APPLICATION OF MODERN PEDAGOGICAL TECHNOLOGIES IN THE
TEACHING OF SOIL SCIENCE IN THE HIGHER EDUCATION SYSTEM**

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***Annotation.** This article discusses the use of modern pedagogical technologies in the teaching of soil science in the higher education system.*

***Key words:** higher education system, soil science, pedagogical technology, interactive method.*

Today, a number of measures aimed at reforming the education sector and improving it based on the achievements of the educational system of developed countries are being carried out. At the initiative of the President of the Republic of Uzbekistan, a number of decisions and decrees were adopted in order to reform the system of higher education in our country. In particular, in order to fully ensure the effective solution of the tasks defined in the decision of the President of the Republic of Uzbekistan "On measures to further develop the higher education system" dated April 20, 2017 PQ-2909, higher education comprehensive development of the higher education system for 2017-2021 in order to fundamentally improve the education system, strengthen and modernize the material and technical base of higher education institutions, equip them with modern educational and scientific laboratories, information and communication technologies program has been approved.

The decision of the President of the Republic of Uzbekistan dated June 5, 2018 "On additional measures to increase the quality of education in higher education institutions and ensure their participation in comprehensive reforms implemented in the country" and Decree No. PF-5847 of 2019 "On approval of the concept of development of the higher education system of the Republic of Uzbekistan until 2030" was developed.

The final goal of this decision is aimed at making fundamental changes in the higher education system, which highlights the issues of further development of the higher education sector, increasing the quality of personnel training, and expanding the integration of science and production.

Also, the decision PQ-4795 dated July 30, 2020 of the President of the Republic of Uzbekistan "On measures to further improve the agricultural education system" was adopted. In this decision, the priority directions of modernization of agricultural higher education, based on advanced educational technologies, the process of training of highly qualified specialists with high moral and moral virtues, based on modern knowledge, will be brought to a qualitatively new level. raising was set as a goal.

The purpose of the research work: In the continuing education system, it is necessary to improve the strategies of using knowledge in the field of pedagogy in the training of highly qualified personnel, who have creativity and initiative, who can independently solve professional and life problems, who are able to quickly adapt to new techniques and technologies, and education in modern conditions according to all the possibilities of the process, it is demanded that it should be oriented towards the development, socialization and education of independent,

critical, creative thinking skills. The future specialist should study the soils of the farm or individual area in which he works in detail, and at the same time, he should know very well the secrets of applying measures to increase soil fertility. This science is especially important in solving problems such as increasing soil fertility, using industrial fertilizers, improving land reclamation, combating soil erosion, and other issues.

Materials and methods: analysis of scientific research and scientific-pedagogical literature as well as normative, educational and programmatic documents, observation of the educational process, conducting questionnaires, tests, methods of experiments, mathematical-statistical results of pedagogical experiments and tests processing and generalization using methods.

In the first stage of the experimental process, preparatory work was carried out to strengthen the use of interactive methods in soil science classes in the higher education system. Research works of scientists, philosophical, psychological, pedagogical problems were studied and analyzed. At this stage, the use of pedagogical technologies in soil science classes in the higher education system was researched, the role, importance, and impact of science concepts using pedagogical technologies in classes were studied.

In order to determine the level of pedagogical technologies of soil science in the second stage of the experimental-testing process, pedagogical experimental-testing was conducted among the students of the Department of Soil Science of the Faculty of Agronomy and Biotechnology of Bukhara State University. The lesson processes conducted in soil science groups according to the chosen professions of the students were observed. Quantitative and qualitative changes of students' interest in the lesson during the beginning and end of the pedagogical experiment were determined in order to determine its effectiveness. Based on the scientific hypotheses of the research, a number of activities were carried out on the use of pedagogical technologies in soil science classes. In the process of pedagogical experiment-testing, attention was paid to the attitudes of soil science students to the new methodology put forward in our research, their comments on the means of implementing pedagogical technologies used in education, and measures to eliminate some of the difficulties that arise in this. activities were analyzed. At the same time, the problems of improving the quality and effectiveness of the educational materials mastered by students through some means of pedagogical technologies were studied.

In the third stage of the pedagogical experiment-testing process, the results of the experiment-testing were summarized on the vitality, novelty of the proposed hypotheses, and the effectiveness of the developed recommendations. The dynamics of teachers' and students' skills in soil science classes before and after the beginning of the experimental work were studied in terms of organizing education based on learning using pedagogical technologies and increasing the effectiveness of scientific concepts and knowledge. The main idea, vision and rules of research took a scientific form at this stage.

All forms, tools and methods used for the development of scientific concepts and the implementation of pedagogical technologies were used during the study of soil science students on the basis of pedagogical technologies. In order to check their quality and effectiveness, a regular form of education was introduced into the trial process. In the process of soil science lessons, the influence of the students on the level of thoroughness and consistency of the knowledge acquired by the students, on the students' interest in acquiring and mastering

knowledge in the lessons on the use of pedagogical technologies in the lessons , and on the improvement of skills and abilities was studied.

Our goal was to analyze the effectiveness of the implementation of various educational activities selected on the basis of "testing" and "teaching" experiences using pedagogical technologies in soil science classes.

Pedagogical experience - test results and its analysis. In order to clarify the methodological and didactic foundations of pedagogical technologies, pedagogical experiments were conducted with soil science students.

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Summary. The tasks of the pedagogical testing process carried out in several stages and the work performed based on these tasks constitute the content of the 3rd chapter. At each stage of the experiment-testing process, a specific goal was determined, and activities were carried out according to a strict plan and program based on this goal. At the first stage, the relevance of the researched problem, the fact that it has not been studied until now, was studied by questionnaires and justified based on scientific literature. In the second stage, the characteristics and level of pedagogical technologies in soil science classes were determined in the process of pedagogical experiments and tests, and the achieved results are evaluated from the point of view of our scientific research. During this stage, the author of the research created teaching-methodical manuals and methodical recommendations on the characteristics of pedagogical technologies in soil science classes, on this basis, to increase students' scientific understanding. In the next third stage, the results achieved in terms of the viability, novelty of the hypotheses put forward in our research, and the effectiveness of the developed recommendations were summarized. Organization of education based on learning in pedagogical technologies and organization of education based on learning in pedagogical technologies in soil science classes before and after the beginning of experimental work of students and the dynamics of skills in improving students' scientific concepts and knowledge studied. In this chapter, it was explained that the main idea, view and laws of the research took a strictly scientific form.

In the process of studying the sciences of soil science, all forms and tools used for the implementation of pedagogical technologies for the development of scientific concepts were used. In order to check their quality and effectiveness, a regular form of education was introduced into the trial process. The impact of pedagogical technologies on the level of thoroughness and consistency of the knowledge acquired by students in the educational process, on the interest of students in acquiring and mastering knowledge in soil science classes, and on increasing skills and abilities was studied. In this chapter, along with improving the methods and means of implementing and using pedagogical technologies, the most effective forms of using pedagogical technologies in training sessions are sorted out and the methods of application are highlighted. Pedagogical experiment-trial process conducted for re-control was also conducted during this stage.

The correctness of the scientific hypothesis put forward by us was confirmed. At the same time, the level of mastering the content of relations between scientific concepts learned from all subjects with the characteristics of pedagogical technology has increased somewhat.

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