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ADVANTAGES OF TEACHING NUCLEAR POWER SCIENCE USING INNOVATIVE METHODS

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Abstract
This article highlights the use of innovative technologies in teaching graduate students of higher educational institutions the subject of modern problems of nuclear energy, the importance and advantages of innovative technologies, the use of innovative methods in the course of the lesson.

Keywords: Nuclear energy, innovation, innovative technologies, cluster, "BBB", method.

Introduction

At the heart of the comprehensive reforms carried out in the education system of our independent Uzbekistan in recent years, updating the content of the higher education system, organizing the educational process of the teaching staff working in this education system in the era of information globalization, it is planned to carry out such important tasks as modernizing production, introducing innovative technologies in this process, the effective use of foreign experience in this regard. When implementing these tasks, a modern teacher is responsible for choosing innovative educational technologies related to the content of education, designing educational developments and technological maps, the ability to apply the educational goals set in them in practice, age, psychological, and one of the topical issues is the possibility of organizing training focused on the personality of the student, taking into account ergonomic features. The use of modern pedagogical technologies in order to further develop students' knowledge while studying in higher educational institutions is the main basis for achieving high efficiency.

Nowadays, modern teaching methods are widely used in the educational process. The use of modern teaching methods leads to a high efficiency of the educational process. When choosing teaching methods, it is advisable to proceed from the didactic task of each lesson. While maintaining the traditional form of the lesson, enriching it with techniques that activate the activities of various students will lead to an increase in the level of students' mastery. To do this, the lesson process must be organized rationally, the teacher should increase the interest of students and encourage their activity in the educational process, divide the educational material into small parts and intellectually reveal their content, it is required to use such techniques as attack, work in small groups, debates, problematic situation, guided text, project, role-play and encouraging students to independently complete practical exercises. It is known that the educational goal is of great importance in the design of any educational activity.

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Innovation - translated from English means innovation, innovation. A.I. Prigogine understands innovation as a purposeful change that introduces new, relatively stable elements into a specific social unit - an organization, a population, a society, a group. This is the work of an innovator. Innovative technologies represent the introduction of innovations and changes in the pedagogical process, the activities of the teacher and students, while in its implementation predominantly interactive methods are used to the fullest extent. Interactive methods are called group thinking, that is, they are considered as a component of the learning content as methods of pedagogical influence. The uniqueness of these methods is that they are implemented only through the joint activities of the teacher and students. This process of pedagogical cooperation has its own characteristics, which include:

1. Makes students not be indifferent in the classroom, think independently, create and search.
2. Ensuring the constant interest of students in knowledge during the educational process.
3. Strengthening the student's interest in knowledge through an independent creative approach to any issue.
4. It consists in organizing the activities of the teacher and the student in cooperation.

Today, interest and attention to the use of innovative technologies, pedagogical and information technologies in the educational process is growing day by day. One of the reasons for this is that, until now, in traditional education, students were taught to acquire only ready-made knowledge, and modern technologies allow them to independently search for acquired knowledge, independently study and analyze it, and even draw. learns to draw conclusions by itself. In this process, the teacher creates conditions for the development, formation, training and education of the individual and at the same time performs the function of management and leadership. In the learning process, the student becomes the main model. Pedagogical technologies and knowledge, experience and interactive methods of pedagogical skills ensure the formation of educated, mature qualifications among students.

The use of innovative technologies in teaching modern problems of nuclear energy in higher education institutions helps to consolidate the knowledge of undergraduates, express their thoughts in depth, connect the process of knowledge exchange and learning with the teacher, analyze the news to cover news related to the topic, and analyze the shortcomings of science and technology, related to this topic helps to work on them.

The "cluster" method can be used at seminars in the course of teaching modern problems of nuclear energy in higher educational institutions by creating a board with the rules for creating a cluster or a large cluster (cluster-beam) information map of all structures. The collection of ideas around some key factor to focus on the essence accelerates the activation of knowledge. With the main word in the composition, words and sentences related to the topic are written in circles “satellites” next to it. They are

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connected to the main word with a dash. If necessary, they will replace them with clusters for consideration.
Figure 1.

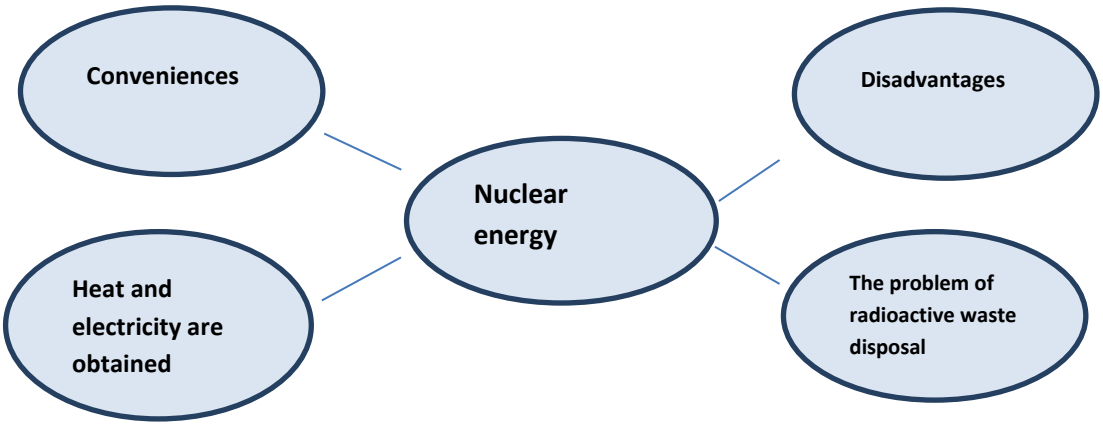

Figure 1

As shown in Figure 1, the cluster is divided into the networks indicated on the worksheet and filled in by the students with their thoughts based on their knowledge and skills.
The use of the above method when studying the science of nuclear energy in higher educational institutions increases the cognitive activity of students, their motivation for a deeper understanding of the physical phenomenon under study, obtaining additional information on the subject, turning the study into a creative process and encouraging research. It develops the abilities of students of higher education as the basis for their further professional activities. A graduate or a specialist who has mastered the lecture in accordance with the educational standard must have the appropriate authority and professional skills. The active practical activity of students is a necessary condition that determines the effectiveness of the formation of these skills in students in the process of studying various subjects.
At the same time, it is effective and convenient to apply the process of using innovative technologies in teaching modern problems of nuclear energy in higher educational institutions in the process of conducting laboratory classes, and there are also various local history methods that serve to enhance students' knowledge. B.B.B technology (I know, I want to know, I know) can be used. Using the "V.V.V." method according to the scheme, students can work creatively, evaluate them, reinforce the topic, repeat knowledge
. The advantages of the BBB method are as follows:
• Formation of interpersonal communication skills among students;
• Students can express their knowledge independently;
• Students can work individually and in groups;
• Students respect the opinion of classmates;
• Teaches students to systematize their knowledge.

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At the end of the laboratory classes, the student will have to fill in the “V.V.V.” technology scheme in the notebook. (Table 1). Students can reinforce, consolidate and gain new knowledge with this method.

Table 1

I know	I wanted to knoww	I knew
1. Nuclear energy	Radioactive aerosol	AES
2.Career	Yadro reaktori	Radioactive waste

To come up to the conclusion, it can be said that when using modern innovative technologies, interactive methods in the process of teaching modern problems of nuclear energy in the system of teaching the master's degree in higher educational institutions, students will be inquisitive, think creatively, strengthen their knowledge and study deeply, serve for long-term preservation of the acquired knowledge in memory, activation of students to the analysis of lectures, practical, laboratory, seminary educational processes, differentiation of the content of education and individualization of education. Teaches students to model their knowledge and independence, accustoms to the complex use of various teaching aids.

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