

## ANALYSIS OF INTERACTIVE METHODS USED IN THE EXPERIENCE OF EUROPEAN STATES IN TEACHING ECOLOGY

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### Annotation

This article analyzes the interactive methods used in teaching ecology in higher education institutions of European countries. This article analyzes the interactive methods used in teaching ecology in higher education institutions of European countries. In particular, the content, didactic capabilities and impact on educational effectiveness are analyzed. This article analyzes the interactive methods used in teaching ecology in higher education institutions of Europeanm.

**Key words:** Ecology education, interactive methods, European experience, higher education, problem education, project-based teaching.

## АНАЛИЗ ИНТЕРАКТИВНЫХ МЕТОДОВ, ПРИМЕНЯЕМЫХ В ПРАКТИКЕ ЕВРОПЕЙСКИХ ГОСУДАРСТВ ПРИ ПРЕПОДАВАНИИ ЭКОЛОГИЧЕСКОЙ НАУКИ

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### Аннотация

В данной статье анализируются интерактивные методы, применяемые при преподавании экологических дисциплин в высших учебных заведениях европейских государств. В данной статье анализируются методы, применяемые при преподавании экологических дисциплин в высших учебных заведениях европейских государств. В частности, будут освещены содержание, дидактические возможности и аннотация. В данной статье анализируются интерактивные методы, применяемые при преподавании экологических дисциплин в высших учебных заведениях Узбекистана.

**Ключевые слова:** экологическое образование, интерактивные методы, европейский опыт, высшее образование, проблемное образование, проектное обучение.

In the context of today's globalization, environmental problems are one of the most pressing issues facing humanity. Therefore, it is important to organize the process of teaching ecology in higher education institutions on the basis of modern, effective and interactive methods. In the

context of today's globalization, environmental problems are one of the most pressing issues facing humanity. Therefore, it is important to organize the process of teaching ecology in higher education institutions on the basis of modern, effective and interactive methods. In the system of higher education of European states, environmental education is aimed at arming students not only with theoretical knowledge, but also with practical activities, critical and creative thinking skills. The purpose of this article is to analyze interactive methods widely used in the European experience and to reveal their pedagogical effectiveness.

Teaching ecology in European Higher Education Institutions relies on a competency-based approach. In addition to the student's environmental knowledge:

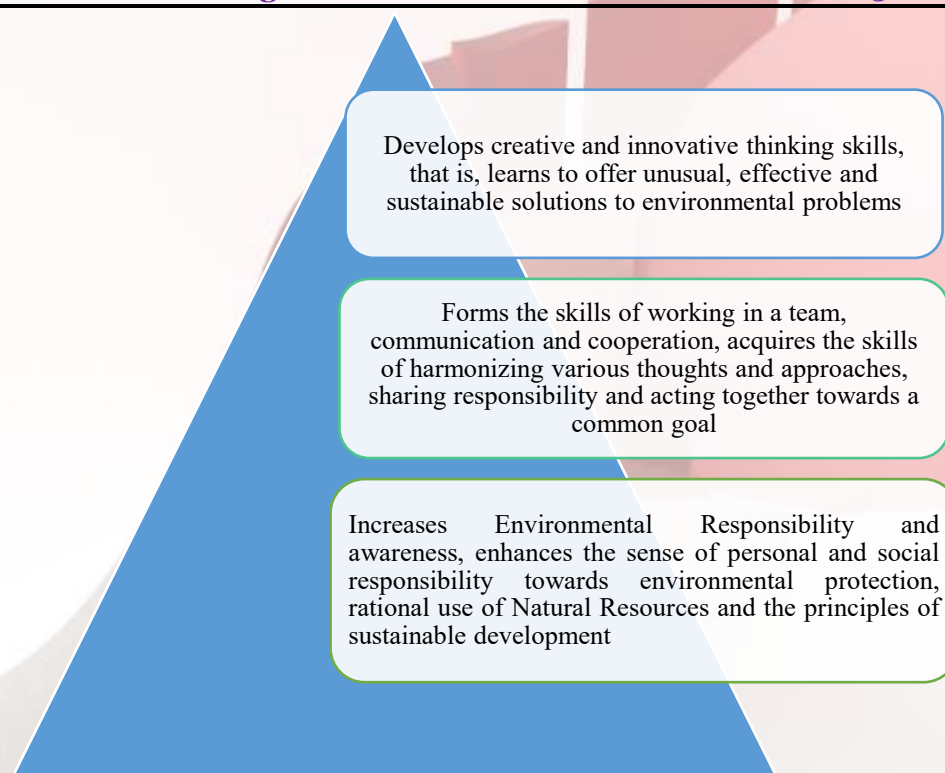
- environmental thought;
- teaching ecology in European Higher Education Institutions relies on a competency-based approach;
- In addition to the student's.

This approach is carried out through interactive methods and ensures the participation of the student as an active subject in the educational process.

1. Problem learning (Problem-Based Learning). In European universities, problem education is widely used in Ecology.. Problem learning (Problem-Based Learning). In European universities, problem education is widely used in Ecology. Students are presented with problem situations:

- develops critical thinking of students;
- forms the skills to analyze environmental problems;
- harmonizes theory and practice.

2. Project-Based Learning (Project-Based Learning). Special priority is given to the project method in teaching ecology in higher education institutions in Germany, Finland and the Netherlands.. Project-Based Learning (Project-Based Learning). Special priority is given to the project method in teaching ecology in higher education institutions in Germany, Finland and the Netherlands. In the experience of these countries, environmental education is aimed at inextricably linking theoretical knowledge with real life, and students actively participate in the processes of developing practical projects, planning them, implementing them and analyzing their results based on pressing environmental problems. Project work is often carried out in cooperation with local communities, industrial enterprises, environmental organizations and scientific centers, allowing students to test their initiatives in practice (Figure 1).



**Figure 1. Options for applying the project method in students**

Thus, the project method serves to shape students in teaching ecology not only as connoisseurs, but also as active, enterprising and able to solve environmental problems.

3. Case-Study (Case study) method.. Case-Stady (Case study) method. The Keys-stadi method is widely used in teaching ecology in European Higher Education Institutions, and it serves to reconcile students ' theoretical knowledge with r. Case-Stady (Case study) method. The Keys-stadi method is widely used in teaching ecology in European Higher Education Institutions, and it serves to reconcile students ' theoretical knowledge with real-life environmental situations. Based on this method, students study environmental problems associated with a particular area, industrial enterprise or socio-economic activity through specific examples, conduct an in-depth analysis of the situation, relying on available data, statistical indicators and expert conclusions. During the process, students pay special attention to determining the correlation of environmental, economic and social factors.

This method allows students to:

- to gain practical experience by studying situations close to real life, that is, understanding real environmental problems and analyzing the causes and consequences of their originis method allows students to:
- to gain practical experience by studying situations close to real life, that is, understanding real environmental problems and analyzing the causes and consequences of their origin;



- comprehensive and systematic approach to the problem, use of various interdisciplinary knowledge in assessing the environmental situation, joint consideration of environmental, legal, economic and social aspects;

- it makes it possible to develop alternative solutions, offer several options for solving the existing problem, compare their advantages and disadvantages, and justify the most effective and stable solution.

As a result, the keys-Stady method forms in students the skills of critical and logical thinking, decision-making, analytical conclusions and responsibly approach environmental problems, effectively preparing them for future professional activities.

Debate and discussion methods in teaching ecology are considered one of the effective pedagogical tools that ensure the active participation of students, directing them to independently think and state their views on the basis. Debate and discussion methods in teaching ecology are considered one of the effective pedagogical tools that ensure the active participation of students, directing them to independently think and state their views on the basis. Through these methods, students debate current topics related to global and local environmental issues, environmental protection strategies, sustainable development issues, and environmental policy. In the experience of European Higher Education Institutions, debates are not limited only to strengthening the theoretical knowledge of students, but also serve to form them as active, responsible and conscious individuals in society.

Students using this method students using this method:

- develops a culture of communication, that is, a person acquires the skills to express his opinion clearly, logically and based on evidence, listen to the point of view of others, respect and conduct constructive discussion;
- a conscious and responsible approach to environmental issues is formed, deeply aware of the social, economic and legal consequences of environmental problems and able to assess their impact on the development of society;
- strengthens the civic position, that is, students have an increased desire to form personal views and beliefs on environmental problems, protect them, express public opinion and actively participate in environmental initiatives.

Debate and debate techniques also develop skills in students to think critically, analyze arguments, compare opposing opinions, and draw balanced and reasoned conclusions about the problem. Debate and debate techniques also develop skills in students to think critically, analyze arguments, compare opposing opinions, and draw balanced and reasoned conclusions about the problem.

5. Digital and interactive technologies. Digital and interactive technologies are widely and effectively used in teaching ecology in European Higher Education Institutions.. Digital and

interactive technologies. Digital and interactive technologies are widely and effectively used in teaching ecology in European Higher Education Institutions. This approach will enrich the educational process with modern information and communication technologies. Digital and interactive technologies are widely and effectively used in teaching ecology in Europe.

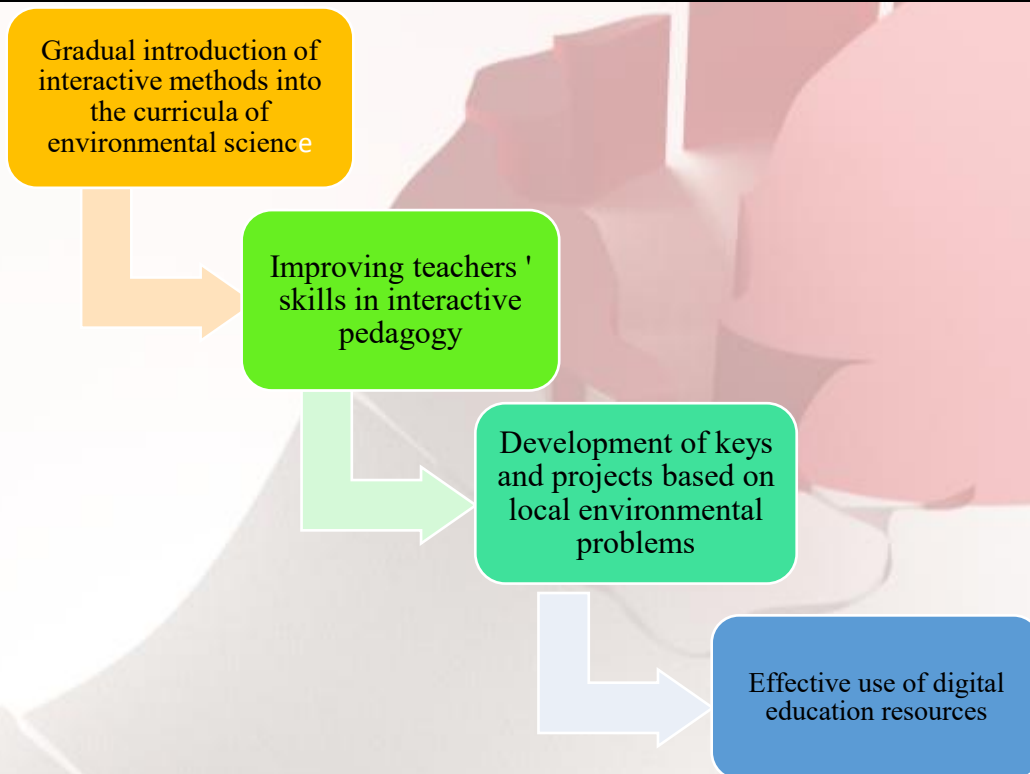
Students with these digital tools:

- ✓ -through virtual laboratories, the clock will be able to safely and repeatedly carry out experiments that are difficult or dangerous to carry out in real conditions, gradually observing environmental processes;
- ✓ with the help of environmental simulations, climate change, reduction of biodiversity, pollution processes, they analyze the impact of various factors on the environment, modeling the dynamics of the development of such complex environmental phenomena;
- ✓ -through online platforms, they develop knowledge sharing and independent learning skills through distance education, interactive assignments, discussion forums, and participation in international projects.

As a result, digital and interactive technologies help to study environmental processes in a visual, clear and understandable way, forming digital literacy, analytical thinking and innovative approach skills in students. As a result, digital and interactive technologies help to study environmental processes in a visual, clear and understandable way, forming digital literacy, analytical thinking and innovative approach.

The following areas are considered important in the application of European experience in the context of Uzbekistan (Figure 2):

In place of the conclusion, it can be said that the experience of European states shows that teaching ecology on the basis of interactive methods significantly increases the effectiveness of Education. In place of the conclusion, it can be said that the experience of European states shows that teaching ecology on the basis of



**Figure 1. Areas of application of European experience in Uzbekistan**

interactive methods significantly increases the effect in place of the conclusion, it can be said that the experience of European states shows that teaching ecology on the basis of interactive methods is.

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