

THE USE OF INTERACTIVE METHODS IN THE FORMATION OF THE STUDENT'S ECOLOGICAL THINKING IN THE TEACHING OF "NATURAL SCIENCE" IN THE IV GRADE

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Annotation

In this article, stated the use of interactive methods in the formation of the student's ecological thinking in the teaching of "Natural Science" in the IV grade, the students of general education schools from the science of science, the interdependence of society and nature, the process of ecologicalization of the educational process, the study of the ecological competence of the students of the IV grade, several tasks of the research process.

Keywords: natural science, ecological thinking, ecological competence, ecologization, ecological education.

Introduction

Today, students of the fourth grade of general education schools should be able to think about the subject of "Natural Science", the interdependence of society and nature, natural landscapes, processes and events, the natural landscape of the earth, rational use of nature, global environmental issues on the earth, appreciation and protection of nature. they should have the knowledge to do.

A natural science teacher must also have the ability to analyze the occurrence and change of environmental issues from an economic and social point of view. Explaining the negative impact of these processes on the global and national economy, and its impact on each student's family, although in small details, will have a good effect on the student's understanding of the rules of environmental behavior and culture.

Literature Analysis and Methodology

Environmental education should start from the family. In this case, parents should be environmentally literate. It is desirable to establish continuous environmental education in kindergarten, school, and higher education institutions. In the 4th grade, the natural science teacher explains to students the phenomena and events that occur on the basis of the laws of development of nature and society, their interrelationship, and the causes of environmental problems in the course of environmental education. is enough.

In accordance with the Resolution No. 434 of the Cabinet of Ministers of the Republic of Uzbekistan dated May 27, 2019 "Concept for the Development of Environmental Education in the Republic of Uzbekistan", unconditional implementation of the tasks defined in the Action Strategy for the 5 priority directions of the development of the Republic of Uzbekistan in 2017, 2021, education for the solution of environmental problems in the republic's territories to contribute to the introduction of the system, to increase the ecological literacy of the young generation, to form and develop ecological awareness and ecological culture, to effectively organize the process of ecological education and upbringing.

The relevance of environmental education was determined by the need to protect the nature, ecosystems, environment of our country from instability and derailment, to increase the ecological culture of the population, to contribute to these very serious and vital issues of all layers of the population, especially young people. The process of studying and researching students' ecological competence in teaching "Natural Science" in the IV grade has several tasks:

- scientific-theoretical justification that the development of environmental competence among students is a pedagogical problem;
- analysis of the world environmental education system and introduction of its effective aspects into the national environmental education system;
- to determine the factors affecting the environmental competence of students through normative and legal criteria; improvement of the model of development of environmental competence of students, determination of pedagogical conditions for its implementation;
- improvement of the methodical system of formation of environmental competence in students through the integration of sciences and innovative technologies;
- preparation of scientific-methodical manuals for students' environmental culture competence, conducting pedagogical experiments and testing them, and determining the level of effectiveness.

The words of our ancestors that "the fate of the world depends on ecological education" are not in vain. Because ecological education is one of the most urgent issues of today, in fact, the worship of the elements of nature was initially formed as a primitive religious imagination, and later it was reflected in Zoroastrianism and other teachings. The Zoroastrians also glorified the four elements of nature, the sun, water, earth, and air, in their ceremonies, and recognized them as the most sacred things in the world.

Our great ancestors such as Imam Bukhari, Imam al-Tirmizi, Bakhovuddin Naqshband, Khwaja Ahmed Yassavi, Al-Khorazmi, Abu Nasr Farabi, Abu Rayhan Beruni, Ibn Sina, Amir Temur, Mirza Ulugbek, Zahiruddin Muhammad Babur made a great contribution to the development of our national culture. who have become national pride. They spoke valuable thoughts about nature and its balance, flora and fauna, and respect for nature, before the science of ecology was born.

The process of ecological education requires a natural science teacher to have a deep understanding of his subject, a skilled master of teaching it, and a perfect mastery of modern innovative technologies. A teacher should know how to follow certain didactic principles when determining the content and scope of environmental education given to students. Pupils should test the theoretical ecological knowledge acquired during the course of the lesson, acquire the skills and abilities to do it, and draw their own conclusions on the problem at hand.

In the IV class, almost all departments of programs on the science of "Natural Science" have ecological issues. The geography course for environmental education and training can be divided into 3 stages:

1. In the 4th grade, the "Natural Science" course is devoted to the formation of the culture of using nature, mastering certain norms and rules of interaction with living natural objects, students will get information about the basic concepts of the Earth, which is formed by the shell of natural science, that is, formed as a whole whole. Environmental lessons can be conducted during the study of each section in "Natural Science" in the IV grade. Taking into account the age of students, environmental knowledge can be imparted through various materials: ecological tales, epics, songs, legends.

2. Forming a system of subject knowledge and skills of research activity on revealing cause-and-effect relationships in natural geography, class IV. It includes the development of the ability to actively use the acquired knowledge in a familiar situation, compare and generalize, find the cause, predict the consequences, draw conclusions, etc. The priority type of activity is the search for systematic knowledge of the type of scientific research.

The 4th grader of the "Course of Natural Geography of Continents and Oceans" reaches the level of being able to reflect on the positive and negative effects of man on nature, to be able to perceive various changes in the environment caused by man. The teaching of Natural Geography of Oceans and Continents encourages students to think globally. The teacher selects ecologically oriented lessons and includes them in the calendar-thematic planning.

Results

The term "environmental education" was interpreted as "ecological education", which became the basis for defining education to solve environmental problems related to the study of natural sciences-ecology. Four main goals of environmental education are formulated:

- 1) learning to know,
- 2) practical learning,
- 3) learning to live together;
- 4) learning to be.

Ecological competence is defined as a complex system object based on combining theoretical knowledge, practical skills in the field of ecology and certain personal qualities that perform a specific function in the system of professional activity, which leads to readiness for ecologically sufficient behavior in the conditions of ethical choice.

The motivation and value component is formed from the outside in the form of social norms, requirements, prohibitions that must be implemented. In accordance with the profile of educational institutions that carry out professional training, retraining and professional development of specialists, teaching of academic subjects on environmental protection, ecological safety and rational use of nature should be provided. At the level of higher educational institutions, this task is not systematic in nature (ecology of some topics of model programs, extracurricular activities, excursions), as well as through the educational activities of museums, libraries, especially protected natural areas, zoos, botanical gardens, etc. can be done.

The following organizational forms are used in the process of formation of environmental competences of 4th grade students in the teaching of "Natural Science":

- public (conferences, Olympiads, exhibitions, thematic weeks);
- group (various forms of lessons, presentations, practical exercises, games, excursions);
- personal (advice, conversations).

Examples of activities for the formation of ecological competences on the example of pedagogical experience: The system conducts a lesson on the topic "characteristics of ecological groups of plants". It covers the concept of "environmental factors" and their types, explores the names of plant groups in relation to various factors of inanimate nature such as light, heat, water, and examines relevant examples of plants.

The whole of Uzbekistan prepares an ecological lesson called "Freedom from waste", in which students act as ecoleaders. The purpose of the lesson is to develop a responsible attitude of future teachers towards waste and to take practical steps to solve the problem of waste in everyday life. During the lesson, the concepts of "natural resources" and "life cycle of things" are revealed, students get acquainted with each of the five stages of the life cycle process. A recycling report for students is presented as one of the main ways to solve the problem of waste. After that, the students suggest options for recycling the waste.

Discussion

The result of the lesson is to encourage future teachers to participate in environmental actions, and the homework is to create environmental posters. A creative exhibition "Protecting Birds" dedicated to International Bird Day and aimed at protecting birds will be organized in higher educational institutions. The exhibition features rare species from the Red Book, extinct and small species, as well as representatives of the city's flora. The impact of human activity on the environment will be considered during the exhibition.

All students who want to participate in the city's "green hands" action, which is dedicated to the day of greening of the city. Students present pre-made flyers to the city residents, inform them about the purpose of the action. Each such eco-action attracts the attention of 100 residents of the city. Every year, all higher education institutions participate in the "paper" action to collect paper. At the time of writing, it can collect over 1000 kg, thus saving trees.

The main concepts necessary for the formation of ecological competence are: ideas, activities, environmentally safe activities, project, management, indicators, resources, mandatory, environmental risk, environmental damage, environmental monitoring, caution, damage to the environment, health and life safety. prevent delivery.

Environmental culture is not a separate type of culture that regulates the relationship of man with the natural world, but a vector of all components of modern human culture. Ecological competences are included in all the basic competences formed in general education as the ability to apply student's values, ecological way of thinking and behavior in social and environmental situations that arise in various forms and directions of human activity.

The practical component of environmental competence includes:

- the ability to apply environmental knowledge in practice to identify, solve and prevent environmental problems, improve the environment;
- the presence of practical experience of environmental activities. Presupposes the existence of value orientations, understanding the meaning of ecological activities, realizing the need to preserve the natural environment as the most important value;
- understanding the social and personal significance of environmental activities;
- confidence in the protection of the living environment, conscious citizenship position;
- willingness to actively participate in ecological activities, environmental conditions;
- responsibility for the results of one's environmental activities, decisions made in the field of environmental change and protection.

It is necessary to review the process of environmentalization of the educational process, to redistribute the theoretical and practical component in favor of the second degree, which will help to stimulate

environmental activities. Only the correct implementation of the system of ecological education of future specialists will allow to implement ideas, goals and tasks and achieve the necessary results in solving important issues such as the greening of society.

Conclusion

In conclusion, it should be said that the principle of mutual relations determines the interdependence of the goals, tasks, methods, forms and methods of teaching in determining the content of the discipline at each stage of the formation of environmental competence. The principle of the unity of choosing the content of the discipline allows to understand the importance of ecological knowledge together with other humanitarian, legal, and natural sciences. At the same time, the experience of teaching the discipline shows the need to improve the methodological work of teachers in the field of educational environmentalization in order to activate environmental activities that help to build environmental potential.

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