

## **FORMING THE STUDENT'S ECOLOGICAL THINKING IN THE LESSON DURING THE TEACHING OF "NATURAL SCIENCE" IN THE 4TH GRADE**

Sunnatullo Do'stov

Independent Researcher of the Denov Institute of Entrepreneurship and Pedagogy

**Annotation:** This article describes in forming the student's ecological thinking in the lesson during the teaching of "Natural Science" in the 4th grade, the reforms being carried out in our country in the formation of environmental culture through the teaching of geography in secondary schools, and the fact that environmental problems are gaining global importance.

**Keywords:** natural science, ecological culture, global importance, ecological thinking, ecology.

### **Introduction:**

As one of the reforms being carried out in our country in the formation of environmental culture by teaching natural science to students of general education schools in the IV grade, at a meeting held on February 2, 2018 under the chairmanship of the President of the Republic of Uzbekistan Shavkat Mirziyoyev, he said: "Ecology is one of the acute social problems of our time. Its solution is the responsibility of all nations. interests, and the present and future of civilization largely depends on the solution of this problem.

Ecological problem is considered urgent in all corners of the earth. Controversial discussions were held about the fact that the level of tension is different in different countries and regions of the world and the relevance of environmental problems in our republic. In the decision No. 187 on approval of the state educational standards of special and vocational education, the learning stages of natural sciences and geography in general secondary educational institutions, and practical natural sciences in secondary special and vocational educational institutions were approved.

### **Literature Analysis and Methodology:**

Nature conservation is a form of relationship between man and nature, and the preservation, restoration and rational use of the surrounding natural environment, including the Earth's atmosphere, the purity of forests and waters, underground resources, the diversity of flora and fauna, and natural resources. set of measures. In other words, nature protection is a general expression of the system of measures that ensure the ability of natural landscapes to create environments and resources, their diversity, and the preservation of non-renewable resources. In recent years, along with the concept of "nature protection", the concept of "environmental protection" or "environmental protection" has been widely used.

Taking into account the fact that environmental problems are gaining global importance, in recent years, along with important priority tasks, special attention has been paid to the issues of environmental protection, ecological culture, ecological education and environmental

enlightenment. "Ecology" is not included as a compulsory subject in the curricula of secondary schools, academic lyceums, colleges and technical schools in our republic.

Environmental education is carried out step by step in the family, kindergarten, secondary schools, higher education and post-higher education. School environmental education plays an important role in students' attitude towards the environment. This education begins in the fourth grade when studying the lessons "The world around us" and "Natural science". Through these lessons, students' ideas about the interactions that exist in nature will expand, and on their basis, they will continue to form an ecological worldview and culture, a responsible attitude to the environment and their own health.

The following tasks are set for the deepening of the students' ecological knowledge: during the lesson, it is necessary to explain each topic to the students, bringing it closer to nature protection, to try to explain on the basis of examples how the negative consequences of human influence have led to the development of ecological and socio-economic phenomena. For example, by talking about the brutal cutting down of forests in the tropics and the destruction of plants in the deserts, increasing desertification and their consequences, it encourages students to improve their relationship with nature.

In 4th grades, students study biology, physics, chemistry and other subjects in addition to "Natural Science" courses. Therefore, providing students with ecological knowledge is developed on the basis of interdisciplinary communication. In the 4th grade "Natural Science", where Central Asia and the nature of our country are studied, on the topic "Uzbekistan's natural resources and their protection", information is given about the use of natural resources of our country and the "Red Book".

3. Use of nature IV classes. At this stage, elementary school students are able to independently combine new knowledge into a system of private knowledge, design new methods of decisions, and present them in the form of projects, presentations, and publications. The main direction of work on the formation of the culture of nature use is the modeling of the consequences of human interference with nature.

Environmental competence is the application of knowledge about the environment and human activities, environmental risks to health, and the ability to act in an environmentally correct manner in certain life situations. Today, the most promising strategy for socio-economic development - the concept of sustainable development adopted by 179 heads of state and government, including Uzbekistan, emphasizes the need to change people's minds and lifestyles in the direction of measuring needs within the capabilities of natural ecosystems.

### Results:

A set of interrelated qualities of a person necessary for effective activity to maintain an ecologically competent living environment. Ecological maturity is the ability, readiness and experience of a person to preserve the living environment and solve environmental problems.

Thus, environmental competence is a characteristic of a person:

- ecological knowledge is the manifestation of ideas about the nature and norms of human interaction with the environment as the most important value of nature,

- the ability to solve environmental problems - the experience of participating in practical work on environmental protection and improvement, ecologically significant personal qualities are thrift, responsibility for the results of ecologically oriented activities.

-environmental functions of ecological competence - ecological value;

- it is determined by the dependence of social and ecological activities not only on natural, but also on social factors;

- ensures the process of socialization, is the leader in the formation of the ecological consciousness of a person, who determines the goals, content, methods, forms, and criteria of evaluating the results of activities in socio-ecological and economic conditions:

- cultural is not only ecological, but also general, political, technical, economic, aesthetic, artistic, professional, physical culture is a factor of formation of culture, norms and values.

The initial stage of the formation of ecological competence of a person is ecological literacy, which is characterized by four components: 1) understanding nature as the habitat of mankind, its "home"; 2) natural science knowledge about the interaction of nature and society, 3) organizational and other abilities of environmental activities; 4) the ability and skills to control the devices that determine the state of the natural environment. Thus, literacy mainly provides awareness and instrumentalization of conservation activities.

In schools, a seminar called "modern methods of environmental quality assessment" is periodically held in IV classes. During the workshop, participants conduct small project studies and create model solutions to environmental problems. Regular work is carried out with students to prepare for the theoretical stage of the Ecology Olympiad.

Ecological competence Socially problematic environmental situation is considered as a complex of conflicting situations, conditions, relations in the system of "man - his activity - socio-natural environment" at different levels and scales as a result of social, economic and ecological consequences of human activity.

Competence means a person's ability to independently apply acquired knowledge and skills in a new situation. In accordance with the meaning of the concept of "safety" included in the Law on Environmental Protection, ecologically safe activity means the quality that ensures the state of environmental protection, human health, and life safety.

Leading activity is considered not only as a means of forming environmental competence, but also as an object of its application. That is, environmental competence is formed not only through the leading activity of the student, but also in the example of socially problematic environmental situations that arise in it.

Therefore, the environmental qualification of the student in the field of leading activity not only ensures the environmental safety of this activity to the student, but also allows to increase its efficiency and optimize the process of personal and intellectual development. Thus, the ecological competence of adolescents in the field of communication is the ability to communicate directly with different people and nature, to find sources of ecologically dangerous information, to propose and to resist.

Based on the above, we suggest highlighting the following important areas of environmental competence in the field of general education:

- ecology of educational activities,

- communication ecology,
- ecologically oriented educational and social practice
- the environmental aspect of career guidance.

### Discussion:

At different stages of education, these meaningful lines are implemented in different proportions depending on the leading activity of the student. For example, educational activities in the field of ecology and the lifestyle and behavior of students in the field of higher education have created the foundations of environmental competence, but continue to develop during education. Learning ecology is considered by us as a field of human ecology that studies the relationship between human learning activities and the surrounding educational and social environment. The content of this field of knowledge:

- assessment of the impact of environmental conditions on academic achievement;
- design and organization of the environment to improve research results, health and safety;
- ensuring environmental safety when working with information flows; -using general education skills to spread ideas.
- environmental maturity in the field of ecology of educational activity implies the student's ability to design and organize taking into account the temporary conditions of the implementation of educational activities;
- relations between educational subjects, requirements of the state standard and educational program;
- individual resources of the student;
- educational burdens and their impact on health and environmental safety, etc.

Thus, ecological maturity is ensured by the implementation of interrelated, common cultural tasks of education, upbringing and development and includes the formation of:

- to know the natural-scientific and social-cultural laws of human activity in the environment;
- activities related to environmental risks for the environment, human health, life safety, rules of ecologically safe life;
- the ability to design one's activities from the point of view of environmental safety.

Environmental competence is the student's ability to independently transfer and comprehensively apply general educational skills and scientific knowledge to design and organize ecologically safe activities in socially problematic environmental situations, human health and life safety. The content of ecological education is reflected in its following aspects:

- scientific (development of scientific and educational relations to the social environment);
- value (determining the value in nature in society and human life);
- normative (mastering the system of ethical and legal norms and rules);
- activity (formation of knowledge, practical and creative skills, types and methods of environmental activities).

Ecologist N. N. Moiseyev stated that "the leader of the century today will not be a country with a high standard of living and the most perfect electronics, but people who will ensure the transfer of knowledge and culture and find relationships with the environment that meet modern needs."

Ecological competence helps future teachers to form ecological culture, to develop their interest in nature, to be convinced of the need to protect the environment, to convey knowledge about world environmental problems to students in an understandable and meaningful way.

In the process of studying the science of "Ecology and sustainable development", the formation of environmental competences of students is based on the most effective scientific principles. The systematic principle is aimed at systematically acquiring environmental knowledge and environmental activity skills. The principle of the continuity of the selection of the content of the subject "Ecology and sustainable development" emphasizes the continuous nature of the acquisition of environmental knowledge by students in the educational process.

### Conclusion:

In conclusion, it should be said that in the process of receiving ecological compensations, ecological thinking is gradually formed in students as the basis of ecological culture and ecological maturity, which, in turn, is an important component of the formation of an intellectual and spiritual-moral personality. An intelligent, literate, ecologically competent and highly moral person will be able to understand and assess the global nature of the ecological crisis and take responsibility for his actions in nature and the actions of other people.

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