Steam Integrated Educational Technology in Increasing the Efficiency of Eco-pedagogical Basic Competencies in Continuous Education

Kuchkinov Abdumalik Yuldoshevich
Uzbekistan, Leading Researcher of the Research Institute for the Study of Problems and Prospects of Public Education named after A. Avloni, Doctor of Philosophy in Pedagogical Sciences (PhD)

Abstract: The content of eco-pedagogical core competencies in continuing education, the importance of improving the didactic support of improving the effectiveness of environmental education technologies in the process of environmental education for students, speaking about STEAM education, media studio, iSpring QuizMaker, development of eco-pedagogical core competencies to ensure the effectiveness of environmental education in the design of technologies for the transmission of environmental literacy, culture, economic, social processes.

Keywords: Continuing education, eco-pedagogy, environment, student, environmental education, technology, didactics, STEAM education, interdisciplinary and practical approach, educational scheme, design, integrated sciences. Competence, Auto plays media studio, iSpring QuizMaker, and technology.

INTRODUCTION. Special attention is paid to the use of modern information technologies in environmental education. Today, modern environmental education institutions around the world give special priority to the formation of truly human relations with nature, the identification of specific socio-natural dimensions that ensure a more guaranteed development of man and nature, and the development of behavioral norms. The international pedagogical community is researching the creation of a system of teaching individuals about environmental thinking as a leading task of modern environmental education and improving the mechanism of environmental education through the eco-pedagogical impact on students.

In the world system of ecological research, the assessment of the ecological worldview as an interrelation of national and universal values, the aesthetic attitude of the individual to nature as an integrative connection with the ecological consciousness and culture of society allows to develop new methodological approaches. Therefore, in the process of ecological education of students, it is important to improve the didactic support to increase the effectiveness of eco-educational technologies. In today's developed countries, ecological education is classified as an "interdisciplinary subject" by three main concepts - system, worldview, future, and students develop an aesthetic attitude to nature and practical skills.

The concept of environmental protection, defined in the Concept of Environmental Protection, "plays an important role in the ecological education of the new Uzbekistan", "increasing the level of transparency of government agencies in the field of environmental protection and strengthening the role of civil society." In this regard, the development and adoption of the National Action Plan for the implementation of the Paris Agreement on climate change in Uzbekistan, strategies for the transition of Uzbekistan to a "green" economy in 2019-2030, until 2030. The formation of a new system of public administration in the field of environmental protection and the need to improve the technology of environmental education of primary school students in the field of environmental protection in the pursuit of ambitious goals, such as the prevention of environmental disasters in the field of sustainable development.
LITERATURE ANALYSIS AND METHODOLOGY. The fact that the science of environmental protection and its educational ideas are reflected in national and spiritual sources, such as the Avesto, the Koran, the science of hadith, folk pedagogy, testifies to the historical and pedagogical nature of the problem. Thinkers and scholars have provided valuable insights into nature, its components and balance, flora and fauna, respect for the environment, and responsible treatment. In particular, al-Bukhari, al-Termizi, al-Beruni, ibn Sino, Mahmud Qashqari, Yusuf Khas Hajib, Ahmad Yugnaki, Khorezmii, Farobi, Amir Temur, Ulugbek, Alisher Navoi, Babur, Abdurahman Jami, Hussein Waz Kashifi In his works, the solution of such problematic issues as nature and society, their interrelation, environmental protection, conservation of natural resources, their rational use, respect for nature was scientifically and practically justified at the level of that period.

An analysis of the scientific and pedagogical literature and research shows that no special research on the principles and technologies of environmental education of primary school students has been conducted to date.

DISCUSSION. The analysis of the practice of environmental education in primary school showed that the content of existing curricula and textbooks on environmental education in many cases does not allow to effectively apply the principles and technologies of environmental education in practice, the system of skills, competencies and competencies is not systematized in accordance with the interactive methods of environmental education and technologies based on their application.

Such disparities and contradictions create the need for a scientific and pedagogical solution to the problem of environmental education in primary education at the level of the requirements of the time.

Bunda:

to establish the principles of a comprehensive approach to the design of technologies for environmental education of primary school students;

Improving the methodological capabilities of the content of materials on environmental education in primary school based on the priority of moral and spiritual values;

The content of environmental education of primary school students has been improved on the basis of a comprehensive approach (purposefulness, connection with socio-environmental processes, integrity, continuity, cooperation, community, individualized and individualized approach to individualism), technological theoretical and practical substantiation of the system;

It is desirable to improve the eco-pedagogical competencies to ensure the effectiveness of environmental education of primary school students through the development of methods for using Autoplay media studio, iSpring QuizMaker and extracurricular activities Ecoolam Web site.

An integrated approach to the design of technologies for environmental education of primary school students, the criteria for eco-pedagogical impact on the effectiveness of person-centered education, the possibility of prioritizing the moral and spiritual values of environmental education in primary school requires environmental education.

From the results of research, observation and generalization of the technology of environmental education of primary school students, the following can be recommended environmental education:

1. To take into account the fact that the content of educational subjects is enriched with respect for nature in order to increase the effectiveness of environmental education technologies for primary school students. Creating a system of continuous education in environmental education technology, to widely promote the philosophical, psychological, pedagogical and social factors of environmental education technology.
2. Virtual electronic program on the technology of environmental education of primary school students (Illustration, use of hearing aids, use of static and dynamic visual aids, independent creative activity, environmental education, graphic objects, virtual laboratory and practical experiments, virtual tour focus on organized environmental education).

3. Incorporate environmental education technologies into the content of DTS for primary school students, using them to create a new generation of textbooks.

In conclusion, in order to increase the effectiveness of the use of environmental education technologies in primary school students, the institutes responsible for retraining and updating the relevant curricula of institutions specializing in their professional development, the development of international assessment programs and the development of environmental awareness The need to coordinate activities is brought up ecologically.

Particular attention is paid to the use of modern information technologies in environmental education. Today, modern environmental education institutions around the world pay special attention to the formation of a real relationship between man and nature, the identification of specific socio-natural aspects that ensure the more sustainable development of man and nature.

Improving the didactic content of improving the effectiveness of environmental education technologies is important in the process of environmental education for students. In developed countries, environmental education is classified into three main concepts - system, worldview, future "interdisciplinary subject", and students develop an aesthetic attitude to nature and practical skills.

The concept of environmental protection defined in the Concept of Environmental Protection in the ecological education of the new Uzbekistan is defined in the Concept of Environmental Protection in the construction of a new Uzbekistan. strengthening the role of civil society. ” In this regard, Uzbekistan has developed and adopted a National Action Plan for the implementation of the Paris Agreement on Climate Change, strategies for the transition to a "green" economy in 2019-2030, 2030, a National Action Plan for the formation of a new government. system To provide students with environmental education technology in the pursuit of ambitious goals, such as the prevention of environmental disasters in the field of sustainable development. That is why STEAM projects can become one of the forms of unification of the world's natural sciences.

STEAM is a new method of teaching school students that differs from traditional teaching methods. Speaking of STEAM education, it should be noted that it is based on the use of interdisciplinary and practical approaches, as well as the integration of five subjects into one curriculum. These technologies include S-science, T-technology, E-engineering, A-art, and M-mathematics. STEAM-School-based learning allows students to create a mixed environment in which they begin to understand how to apply scientific methods in practice. Thus, the implementation of STEAM projects in the educational process allows to reduce the theoretical material to a reasonable, vital and academic level. This is especially important in the implementation of environmental projects, when the student has a real opportunity to apply the acquired knowledge in practice, if he / she uses the universal educational actions of the meta-subject and involuntarily intervenes in the protection and preservation of the environment.

STEAM environmental projects are implemented within the framework of the Natural Science Laboratory. The shape of the school laboratory allows for the creation of a single interdisciplinary didactic space, the students' knowledge of biology gives them a holistic view of the role of humans in the biosphere, and allows them to make connections between processes. the impact of environmental factors; basic chemical knowledge helps students to understand the mechanisms of biogeochemical processes; physics shows the threatening scale of human impact on nature; Geographical knowledge allows us to assess changes in nature.

Each topic in the integrated science course contributes to the environmental education of students. And engineering thinking and modeling skills allow students to create non-standard
One of the most obvious examples of STEAM projects is the creation of models of various ecosystems.

CLEAR CONCLUSIONS AND PRACTICAL SUGGESTIONS. A special task can be to teach students to live in harmony with the environment, to respect nature and to be careful. In this case, you can use the project to create your own environmental labels, which are not prohibitive, but incentive.

The research project "Ecotourism Travel" will be organized to acquaint students with the nature and form a culture of communication. Provides students with knowledge about natural objects and phenomena in the natural environment. Students will understand the natural world through its richness and diversity, see and be aware of the natural processes that take place in nature.

Thus, STEAM education provides an opportunity to implement new methodological technologies aimed at shaping the environmental culture of preschool and primary school students.

References: