



MODERN REQUIREMENTS FOR IMPROVEMENT OF MECHANISMS OF ECOLOGICAL EDUCATION

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Abstract

The content of this article is devoted to the issues of modern requirements for improving the mechanisms of ecological education. In the article, the author analyzed the importance of environmental education and its modern requirements at a time when environmental problems are gaining global meaning and essence. It was analyzed from the point of view of the technical requirements for pedagogical, didactic, psychological and modern information and communication tools for the improvement of ecological education mechanisms.

Keywords: ecological education, ecological culture, social education, nature and society, software, mobile education.

Аннотация: Содержание данной статьи посвящено вопросам современных требований к совершенствованию механизмов экологического образования. В статье автор проанализировал значение экологического образования и его современные требования в условиях, когда экологические проблемы приобретают глобальный смысл и сущность. Он проанализирован с точки зрения технических требований к педагогическим, дидактическим, психологическим и современным информационно-коммуникационным средствам для совершенствования механизмов экологического образования.

Ключевые слова: экологическое образование, экологическая культура, социальное образование, природа и общество, программное обеспечение, мобильное обучение.

INTRODUCTION

At the same time as the current scientific and technical progress is rapidly developing, the requirements for improving the mechanisms of ecological education are also developing. The conditions of globalization require serious attention to the quality of training of mature personnel in the world's education system. Today, virtualization, optimization (Software Optimization) of education and mass online open courses on





the Internet, mega-portals, innovative education (3D learning; e-learning platforms; Moodle; Ilias, etc.) the growing popularity of higher education institutions requires the development of creative activities of students and the ability to constantly search for new ideas and implement them. Improvement of teaching technologies in the educational process is the main essence of the system. A systematic approach creates the basis for the effective operation of the educational process, the introduction of technologies and continuous operation. In the current era, pedagogical technologies are important because they direct students to free and creative thinking, creative research, and independent research. In this process, of course, the service of online resources is great. Today, the individual is not the object of the educational process, but the main driving force of its subject. This process created the need to effectively use modern pedagogical technologies in the field of education, to improve the competence of computer use.

LITERATURE ANALYSIS AND METHODOLOGY

Russian scientist V.P. Bespalko divided the pedagogical periods as follows.

- 1 - period of pedagogical activity of an individual pedagogue
- 2 – period of textbooks
- 3 - period of audiovisual media
- 4 – period of control of training with simple automatic means
- 5 - the period of management of training with automation tools on the basis of modern electronic computing equipment.

With the growth of modern technical-technological opportunities, special emphasis has been placed on individual-oriented education. Especially with the improvement of phones and smartphones, mobile education is also developing.

In the improvement of the mechanisms of ecological education, it is important to pay particular attention to the improvement through automated technical supplies, software tools, and modern information and communication tools. Emphasizing technical and software, modern information and communication tools, it is also important to dwell on the essence of the concept of software. Software is a collection of information stored in the computer memory for a long time, which is used in a specific purpose-oriented manner based on instructions. Software is based on two different support systems. Main and service supply. It is also common to categorize service provision by purpose and instrument provision. If the main support includes the operating system and the environment, the service support includes all the systems that serve on the computer, that is, it includes systems such as the





organization, download, use, transfer of services aimed at various purposes through technical means.

In education, mobile learning systems were introduced by Alan Key in 1968 with the creation of "Dynabooks" - portable learning devices. "Dynabook" is one of the first versions of tablets and notebooks, which was interpreted as the main tool of the educational system. That is, it is considered as the main tool in the classroom and extracurricular activities of every learner. Later, with the advancement of phones and smartphones, the concept of using mobile applications in education began to improve by the 2000s. Mobile application - is a software product for mobile devices that is also used under the names of network applications in everyday life - in short - a type of application software designed to work on devices. In 2007, this term became very popular in America, and in 2010 it was included in the "Word of the Year" list. Nowadays, it is developing globally in all sectors, including the education system. In the early 2000s, due to the development of the use of phones and gadgets, the increased need for the use of mobile applications in education also created unique requirements. The expansion of the scope of use of modern information programs, in turn, has increased attention to the aspects of constant updating, quality improvement, addition of external news and their control.

The most important idea of introducing mobile tools into the educational system is that it is convenient to get any information at any time. N. Hockley defines mobile learning as a unifying approach. According to A. Drigas and M. Pappas, mobile applications help to develop mathematical and arithmetic skills. According to F. Huddedge, S. Lattenman, they emphasize the convenience of organizing and checking controls, testing and downloading books. The environmental education mobile application "Good Habits" by IKEA was launched in 2019 and contains about 75 game tasks. Many people are concerned about environmental change, but cannot answer the question of what we can do to save our planet. This application, created by Russian programmers, paid attention to habits aimed at leading a daily lifestyle in harmony with the environment, and thereby set itself the goal of developing environmental education. Some mobile applications are aimed at improving mechanisms of environmental education through topics aimed at sorting waste and preserving natural resources. Recently, the increasing role of digital technologies in the field of education, especially the increasing importance of mobile devices, makes it possible to learn anytime and anywhere. According to M. Khoshimi and M. Azizinejad, the development of mobile devices opens up new opportunities in the field of education. Mobile learning resources have been put into practice as non-traditional learning resources since 2011-2013.





RESULTS

Today, the pedagogic requirements of environmental education and cultural improvement are modernizing and improving.

- Developing the introduction of modern pedagogical technologies in the improvement of ecological education mechanisms based on international experiences;
- Having quick and quality information resources;
- Creation and improvement of databases that develop environmental education skills in the system of information and communication networks;
- Providing the material and technical base of educational institutions with technical tools and equipment;
- Orientation to creative thinking in improving mechanisms of ecological education based on individual characteristics of students
- Directing independent learning and work on improving mechanisms of ecological education;

Pedagogical, didactic, psychological and technical requirements should be cited as modern requirements for improving the mechanisms of ecological education based on the theory of modern pedagogy.

Pedagogical requirements - the educational and educational value of the studied content, the expansion of the student's base of study and preparation for the lesson, requirements for ease of use.

Didactic requirements - ability to meet the requirements of modern techniques and technology, demonstration, coherence, sequence, complement each other educational materials.

Psychological requirements - age limit, availability of materials suitable for each age group, psychological thinking of young people, serving the educational and educational orientation of the mind.

Technical requirements - to achieve the continuous operation of modern information communication and software tools, to achieve the development and improvement of functional changes of the system in the future. Requests can be made to increase the ability to get any information at any time, etc.

The content of improving ecological knowledge is directly related to ecological knowledge, improving skills and qualifications, theoretical issues of ecological science, scientific biographical materials, ecological education methodology, scientific research methods.





DISCUSSION

In the course of our research, the "Ecoedu.uz" platform was created, which serves to improve the mechanisms of environmental education in educational institutions, and the use of this platform is an important platform for students and teachers living in the territory of the Republic of Uzbekistan. Further improvement of online educational activity, environmental education - creation of an online platform that serves to increase the quality of education, accessible to all, interesting activities, tests, riddles, animations, promoting schoolchildren to environmental education. Establishing mutual electronic cooperation between schoolchildren, teachers, researchers working on environmental education, which does not require additional hassle, transport, time, ensures the efficiency and speed of the activities of state bodies (schools) and other organizations (those engaged in research on environmental education), their creating an online forum where you can discuss your interests and opinions, information about plants and animals included in the "Red Book", recommendations for a healthy lifestyle, interesting tests to strengthen ecological knowledge, wise words, aphorisms, proverbs, information about scientists who contributed to the development of ecological science, games, working with maps, based on international experience, it is planned to create a single system that represents a complex (database) of interconnected information resources and is designed to monitor the realized results.

Currently, platforms and mobile applications that serve to improve mechanisms of environmental education are service providers. By working with educational materials and additional information, gamified images, games, interesting information, topics on mobile devices and online platforms help to improve the mechanisms of environmental education.

CONCLUSION

In conclusion, it should be noted that the issue of improving the mechanisms of ecological education has always been a topical issue. It is worth mentioning the general aspects of the requirements for modern software tools. It is necessary to take into account the reliability of the software tools, the social suitability for all users, the technical requirements, the instructions and requirements for compliance with security requirements, and the need to prepare the instructions. All requirements and tasks should be defined and understood in the instructions for using the platform. In the current era, when modern science and technology is rapidly developing, it is the need of the hour to give special importance to the number and quality of online resources. If we pay attention to the activity of young people on Internet resources





and networks and the increasing skills of working with social networks, it is of urgent importance to pay attention to the correct organization of young people's time, to pay attention to such issues in the processes of pedagogical control and pedagogical analysis.

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