Ecological and Psychological Features of the Play Space Organization of Students with Using a Computer Technologies

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Summary

The article shows the ways of application of computer technologies, especially, slide presentations in the process of teaching students that can be ecologically educated and have the following advantages: the implementation of polysensory perception of the material; the ability to demonstrate various objects using a multimedia projector and a screen in a magnified view; an audio, a video and animation effects into a single presentation helps compensate for the amount of information received by children from the literature, as well is activation of visual functions, visual capabilities of the student. Computer presentation slide films are convenient to use to display information in the form of large print on a printer as a handout for classes with students. It is noted that the computer, as a tool for information processing, can serve as a powerful technical tool for learning and play the role of an indispensable assistant in the training of students. It is noted that the tasks of modern educators are: constant introduction into the educational process of various teaching methods that comprehensively intensify the activities of students, reconciling education with life and practice; improvement of forms of education, which are aimed it mastering specific types of subject activities and the formation of educational worldview. For high-quality training, children must acquire thorough basic knowledge, practical skills that would allow is practice not only to improve the conditions and productivity of their development, but also to prevent the possibility of disease, injury, gambling etc.

Keywords:

ecological education, play space, high educational institution, means of computer technologies, culture of life safety.

1. Introduction

The modern period of society's development is characterized by the strong influence of information and communication technologies, which penetrate into all spheres of human activity, ensure the spread of information flows in society and form a global information space. Ukraine is currently developing a new education system focused on entering the world information and educational space. This process is accompanied by significant changes in pedagogical theory and practice of the educational process, associated with adjustments to the content of learning technologies, which must be adequate to modern technical capabilities and promote the harmonious development of the student in the information society.

The process of reforming of modern education, the need for its informatization encourages high education, as an active part of continuing education, to seek ways to use the computer as a means of developing the child's personality in the appropriate environmental sphere. The environmental friendliness of the educational environment reflects the individual's need to learn about the nature of computer technology, increasing the level of knowledge of students about the problems of self-protection in their usage. The introduction of computer technology is accompanied by a number of needs that are highlighted in the presentation of multimedia equipment.

The usage of multimedia presentations allows you to make classes emotionally colored, attractive, arouse the child's lively interest, is a great visual aid and demonstration material that contributes to a good performance. At consideration, inspection and visual allocation of signs and properties of subjects, ways of visual perception, inspection, allocation in qualitative world of qualitative, quantitative and space-time signs and properties are formed, visual attention and visual memory are developed. The usage of computers, multimedia and information technology as didactic tools help increase motivation and individualization of learning, develop students' creative abilities and create a healthy emotional background. It is proved that a person remembers 20% of what he heard and 30% of what he saw, and more than 50% of what he sees and hears at the same time. So facilitating the process of perceiving and remembering information with the help of vivid images is

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the basis of any modern presentation. The computer allows to create conditions for increase of efficiency of process of training, expands age possibilities of training.

2. Analysis of recent research and publications

Burden K., Kearney M., Schuck S., & Burke P. [4] present the principles underlying innovative mobile learning: stakeholder priorities. Viznyuk I., Ordatii N., Ordatii A. [17] argue that there is a relationship between the causes of industrial destruction and injury in working with computer technology: the lack of culture of individual behavior, culture of interpersonal relationships, technological culture, culture of production and security culture.

Dagani J., Buizza C., Ferrari C., &Ghilardi A. proposed psychometric validation on the cultural adaptation of the Italian profile of student aggressors in an ecological environment [8].

Trudel-Fitzgerald C., Millstein R. A., von Hippel C., Howe C. J., Tomasso L. P., Wagner G. R., &VanderWeele T. J. reveal the essence of psychological well-being in discussions on health care and the formation of environmental competence [16].

The study of O. Semenikhina, A. Yurchenko, A. Sbrueva, A. Kuzminsky, O. Kuchai, O. Bida [15] is based on the analysis of the content of ten platforms that provide access to open resources, including: Coursera, Edx, Udemy, MIT OpenCourse Ware, OpenLearn, Intuit, Prometheus, UoPeople, Open Learning Initiative, Open University of Maidan (OUM). They are focused on improving the professional training of specialists: the organization of independent work, training courses, dissemination of author's techniques in the development of their own training courses and their promotion on open platforms etc.

Chagovets, A., Chychuk, A., Bida, O., Kuchai, O., Salnyk, I., & Poliakova, I. (2020) present the the problem of qualitative training of a future specialist under the reforming of the educational process content. The authors examine the diagnostics of initial level of formation of motivation to professional communication as the important factor of future specialists' creativity formation [7].

Kuzminskyi A.I., Kuchai O.V., Bida O.A., Chychuk A.P, Sigetiy I.P., Kuchai T.P. concider the training of specialists in free economic education in the conditions of distance learning. The advantages of distance learning are shown. The characteristic features of distance learning in the preparation of students and in the implementation of these technologies in the educational process of free economic education are determined [14].

Kuzminskyi A., Bida O., Chychuk A., Kuchai O. study of the state of information support of teachers made it possible to establish that the main functions of scientific and pedagogical information – analytical and prognostic, integrative, operational and targeted information of different categories of teachers – are not sufficiently implemented [13].

Kuchai O., Kuchai T., Chychuk A. examine the information culture of future professionals in France and the Great Britain. The basis of an individual's information culture is knowledge of the information environment, the laws of its functioning and development, and most importantly, a perfect ability to navigate the boundless modern world of information [12].

Kuchai O., Yakovenko S., Zorochkina T., Okolnycha T., Demchenko I., & Kuchai T. focuses on the main aspects of computerization of studies as a technological breach in methodology, organization and practical realization of educational process and informative culture of a teacher. Information technologies are intensive involved in life of humanity, educational process of schools and higher educational establishments. Intercommunication is examined between the processes of informatization of the society and education [11].

Bida O, Prokhorchuk O, Radul O , Yakimenko P, & Sheychenko O. presents an analysis of distance education in the world during a pandemic, analyzes significant changes, and implements measures in the field of education in Ukraine and around the world [3].

Asharul Islam, Khan Zuhoor, Al-Khanjari Mohamed, Sarrab Source [2] reveal the quality assessment process of a mobile learning program designed for preschools.

Anderson, S., Marcolino, Elaine A., Praca, Eduardo G. & Silva offer a practical approach to improving the interdisciplinary teaching and learning process through innovative M-learning projects [1].

Fierro-Suero S., Almagro B. J., &Sáenz-López P. (2020) tested the Emotion Achievement Questionnaire on Physical Education (AEQ-PE) in terms of disclosing environmental factors in child's health. Taking everything into account, we understand that further development of issues related to the study of components, criteria and principles for safe living and the role of specific tools of computer technology in the formation of information and communication competence of teachers in the environment of children's education [10].

The purpose of the article is to improve the quality of educational work with students on environmental education, personal safety and protection of life with the usage of computer technology; improving the theoretical knowledge and practical skills of future teachers in the formation of students' values of their own way of life. The main task of the article is to form in each pupil environmental education, active life position on their own safety, equipping him with knowledge and skills of safe behavior at home and in high educational institution in working with computer technology.

3. Research methods

3.1. Theoretical foundations of the study

Nowadays the computer is a kind of "intellectual tool" that allows a person to reach a new level of information in the

educational system of Ukraine. It should be considered as a modern means of activity of a student. Students' computer lessons are important for the development of environmental education, intelligence, hand motility, visual-motor coordination, improve and develop memory and attention. Performing fun game tasks, students learn to think analytically in an unusual situation, to classify and generalize concepts, to strive for the goal. In families and educational institutions of different types with the help of a computer, the student solves various tasks, converting images on the screen using a keyboard and a "mouse".

The computer, being the most modern tool for information processing, serves as a technical means of learning and plays a significant role in the overall technical development of students. Students show a high interest in the computer, its structure, functions, capabilities, while receiving a good emotional state, pleasure. Working on a computer, students act with visual screen images, which they attach to the game's meaning. The students move from their usual practical actions with objects to actions with them in cyberspace (imaginary, model, symbolic). The student's work with the computer forms the prerequisites for theoretical thinking, the ability to work at an individual pace. He has mastered basic computer technology is better than others ready to think, solve his problems internally, feel competent in life in terms of information.

The study of certain computer technologies and tools should be determined by the needs of the educator in his professional activity.

Value-motivational component includes motives, goals, needs for professional training, improvement, self-education, self-development, values of actualization in professional activities, stimulates the creative expression of a person in professional activities. It presupposes the presence of interest in professional activity, which characterizes a person's need for knowledge, in mastering effective ways of organizing professional activity. Also, the value-motivational component includes the motives for pedagogical activities, the focus on the transfer of knowledge and the development of student's personality.

The cognitive component should ensure the educator's free skills in processing information and working with information objects that affect the content of environmental education, skills to improve professional knowledge and skills, knowledge of interdisciplinary links, etc. The level of development of the cognitive component is determined by the completeness, depth, systematic knowledge of the educator in his subject area.

The activity component is the active usage of information technology and computer in professional activities as a means of cognition and development of information and communication competence, self-improvement and creativity, as well as the development of environmental qualities of students. The communicative component of this component is manifested in the ability to establish interpersonal relationships, choose the optimal style of communication in different situations, to master the means of verbal and nonverbal communication.

Reflective component includes self-awareness, self-control, self-esteem. Forms responsibility for the results of their activities, self-knowledge and self-realization in environmental activities through the means of computer technology.

The development of each component of information and communication competence of students is associated with the formation of its characteristics and properties as a part of a holistic system.

Classification of computer technology, depending on their methodological purpose for the development of environmental and psychological features of the organization of the game space contains educational (report educational information, form knowledge, skills and abilities of educational or practical activities), training (designed to consolidate skills, repetition material), information retrieval and reference (report information, form the ability to systematize it), demonstration (visualize the objects being studied for research and study), simulation (represent a certain aspect of reality in education to study its structural and functional characteristics), laboratory (allow to conduct remote experiments on real equipment), modeling (allow to model objects in order to study them), educational and game (create learning situations in which activities are implemented in the form of games), calculation (automate various calculations and other operations j) components.

To identify the ecological and psychological features of the organization of the play space is of great importance the content of basic information and communication competence for lecturers includes understanding the principles of work and ability to search, collect, basic computer programs, and create, organize including text and spreadsheets electronic information and systematize the data obtained, use methods of storing and processing information. Have the ability to use appropriate tools (presentations, graphs, charts, maps, e-mail, video conferencing) to comprehensively understand the information obtained and the ability to use information technology innovation in different contexts at home, at work and at leisure.

Informatization of education for the development of ecological and psychological features of the organization of the play space is a great place for the manifestation of creativity of teachers, which encourages the search for new, non-traditional forms and methods of interaction with students; it helps increase students' interest in learning, activates cognitive activity, develops the child comprehensively. Possession of new information technologies will help the teacher to feel comfortable in the new socio-economic conditions. The usage of computers, multimedia and other technical means in classes to educate and develop the creative abilities of the student, the formation of his personality, enrichment of the intellectual sphere of the student can expand the capabilities of the teacher.

Informatization of education is a very objective and inevitable process. A new educational eco-environment is being formed in preschool educational institutions, high-tech information tools for teaching and developing students are appearing (video cameras, multimedia computers, projectors, screens, touch interactive whiteboards, etc.). There is an expansion of the production of educational multimedia products for students (computer games, electronic encyclopedias, cartoons, educational videos and programs, websites, etc.). There is a growing interest of teachers and specialists in high education in the means of computer technology and the possibility of using them in their professional activities to identify environmental and psychological features of the organization of play space.

The criteria for selecting computer technology tools that ensure their compliance with the age characteristics of students, and therefore suitable for the application of ecological and psychological climate of the organization of play space in high institutions, include:

1) information and communication technologies are developmental: all tools used in the education of students are developmental and educational in nature, others – are excluded;

2) promote cooperation and integration: form the student's ability to act both independently and in a team ;

3) create the situation of the virtual game: play is the leading activity of students, and as an imitation of software, it plays a central role in the process of acquiring new knowledge, skills and abilities; gaming computer technology, along with real toys and objects, can become alternative models of life situations;

4) "transparency" and clarity: the functions of computer technology tools must be clearly defined and clear;

5) social acceptability: in information and communication technologies there should be no scenes of violence, otherwise students are imposed stereotypes of socially unacceptable, aggressive behavior, and if the means of computer technology do not meet this criterion, their usage in any educational context cannot be justified;

6) dosing in time and content: the integration of computer technology should support awareness of health, safety and parental involvement in high education, as the introduction of any innovations in the learning and upbringing of students should be carried out in close cooperation with parents.

Among the categories of computer technology that can be used in the practice of high education to improve the ecological and psychological organization of play space, we can highlight: planning and management technologies, Internet technology and e-mail, learning technology and related tools (computers, projectors, touch screens, interactive electronic blackboards), educational software products, digital and programmable toys, etc.

Computer technology tools in high educational institutions create opportunities to solve a number of problems and, in particular, provide:

1) development of psychophysiological functions that provide readiness for learning (fine motor skills, spatial orientation, visual-motor coordination); enriching the outlook of ecological and psychological features of the organization of the game space;

2) mastering various social roles; formation of educational motivation, development of personal components of cognitive activity (cognitive activity, independence, arbitrariness) for ecological orientation of the organization of game space;

3) the formation of age-appropriate general intellectual skills (serialization, classification, etc.);

4) organization of favorable for the development of the student's subject and social environment.

Work with students using the computer technology in their cognitive development to environmentalize the play space, should be based on the following principles:

The principle of clarifying the objects presented in a digital form, you can perform various actions, to isolate the main patterns of the studied object, phenomenon or consider them in details. Computer-simulated processes can be varied in form and content, demonstrating environmental and other realities.

The principle of attractiveness due to presentations, children, who usually did not differ in high activity in direct educational and joint activities, began to actively express their opinions.

The principle of systematicity and consistency involves both the organization of cognitive material and the system of actions of the student to master it: perception from the screen, explanation of the educator, independent work.

The principle of psychological comfort involves the removal of all stressors in the educational process, creating an atmosphere in the group focused on the implementation of the ideas of pedagogy of cooperation, the development of dialogic forms of communication.

The principle of integrity involves the formation of students' generalized systemic view of the ecoworld (nature, society, self).

The basic requirements for computer technology tools in the educational environment (tools used in the first years of students' education) should be educational in nature, others are excluded. Computer technology tools should promote integration that is as close as possible to other traditional activities of the children's institution (games, project work, etc.), which ensure the development of the educational process for students. Game simulators can be effective in developing some of the skills that help memorize learning material according to the software.

It should be noted that the components of the high educational and information environment of the preschool educational institution, aimed at ecological and psychological features of the organization of play space are: at the level of material resources – modern technical means for widespread usage of computer and information as well as communication technologies (computer classes, computer centers, etc.), electronic databases of software and pedagogical tools

(computer training, development programs and environments, simulators, electronic library, video library, etc.), computer-based learning tools and learning environments for students; at the level of human resources – an educator who has the skills to work on a personal computer and is able to use computer technology at the level of integration into the existing high educational space, the administration of the high eductional institution, which has modern computer and information technology; at the level of information resources – connection to the Internet, the site of the institution, the administration, educators and specialists, etc.

Recently, the defining trends in the development of the Internet have become new technologies, approaches, support and use of Web resources, which received the common name "Web 2.0" and became a key in the development of Internet services. The concept of Web 2.0 appeared in 2005, but the debate over its interpretation and continues up to now. O'Reilly Media and the commercial organizer of a series of conferences called Web 2.0, MediaLive (now CMP Technology), have outlined Web 2.0 as a concept used for designation of a number of technologies and services of the Internet, or rather a part of it – the World Wide Web, known as the Web (WWWeb).

Cademy M. Yu., Shakhina I. Yu. outline Web technologies as a set of Internet services and training that give equal rights to all users. According to the author, such services provide an opportunity to participate in various communities in order to gain and disseminate experience. The dissemination of knowledge on the Internet depends on the functional usage of the browser, which provides personal security in the process of working on the Internet, constantly sending, receiving and processing information [5].

Web 2.0 technologies are Internet resources that help educators to achieve their environmental goals while using all the functionality and tools of the web space. Web 2.0 is the Web for People. The reason for the success of the Web 2.0 concept is simplicity. It is the simplicity of using Web resources that have provided Web 2.0 flagship with large active user audiences, which in turn improve these resources. These services are especially important for teachers, as Web 2.0 technologies are technologies that help not only communicate, disseminate, store, add information, but also fill the entire space of free time and be able to self-realize. Web 2.0 services open up the following opportunities for educators:

- usage of open and free electronic resources of educational computer programs, electronic textbooks, language games, images and sound files that can be used for educational purposes, forming the ecological worldview of a person;

-independent creation of online content (texts, pictures, photos, audio and video clips, etc.);

- participation in new forms of educational and cognitive activities related to the search for a foreign language information on the Internet, as well as the creation and editing of their own texts, photographs, audio recordings, video clips, etc.

Advantages of using Web 2.0 technologies: accessibility; mobility; openness; flexibility; infinity; convenience and ease of use; speed of dissemination, receipt and processing of information; feedback; communication settings; realization of creative ideas; preservation and systematization of important information, etc. Among them, to determine the ecological and psychological features of the organization of the game space, we can distinguish the following:

Mind maps are a handy tool for displaying the process of thinking and structuring information in a visual form. Characteristic features: the key object, concept, topic is in the center and aspects, concepts, questions, topics that reveal or characterize the concept are depicted in the form of branches, which are combined with keywords, phrases or images. The movement of the branches depends on the structure of the chosen topic.

Book trailer – a short video based on a book or a fairy tale.

Interactive poster – an electronic tool that provides a high level of visual perception of educational material. Information is presented in stages – the gradual unfolding of information in the form of interactive elements.

Virtual board – an opportunity to diversify the educational process, visualize all the materials, communicate with parents.

Photo collage – creating an individual, interactive composition. Relevant resources help organize the necessary tasks or images into a single whole.

Multimedia presentation – a set of color slides, decorated with information technology and designed to reveal a particular theme of the ecological direction of the game space. Multimedia technologies are one of the most promising and popular areas of informatization of preschool education. They aim to create a product that contains collections of images and data, accompanied by sound, video, animation and other visual effects. A multimedia presentation for preschoolers should include a slide show of graphics, pictures, etc., as well as sound, video, and animation, the three main components of multimedia.

So the Web 2.0 Learning Apps service.org (https://learningapps.org/create?new=375&from=pqqw17eq217) can be considered educational because it is designed to support learning and teaching processes through small interactive modules that can be used directly as learning resources or for independent work. The aim of the work is to create a public library of independent blocks suitable for reusage and modification. Blocks (or Exercises) are not included in specific scenarios or programs, so they are not considered holistic lessons or tasks, but can be used in any relevant methodological scenario.

3.2. Methods of conducting a pedagogical experiment

The usage of modern programs for the upbringing and development of students has contributed to the development of

methods of using certain computer technologies in high education to highlight the most important environmental and psychological features of the organization of play space.

Methodical work in educational organizations is a system of interrelated activities aimed at improving pedagogical skills, developing the creative potential of teachers, and at the final stage of increasing the education and upbringing of students. The main purpose of the information support service is:

-formation of information educational environment of the institution, step-by-step solution of problems of educational informatization for a better development of the game space;

-introduction of new information technologies in educational and managerial processes for environmentalizing of the game space;

-information and methodological support of the educational process; introduction of electronic document management.

That is why the methodical service is aimed at creating the integrity of the teaching staff, creating a model of methodical work that will provide the choice of optimal technologies for improving the play space. Methodists should use different forms of work with teachers: weeks of pedagogical skills, during which teachers hold open demonstrations, which present the successful experience of introducing information technology in the educational process to environmentalize the playing space; master classes, in the process of which educators learn methods and techniques of working with students using information technology to environmentalize the play space; pedagogical workshops, work in pairs, where teachers communicate and learn from the experience of those educators who can help in the development and application of new technologies for changing of the play space; educational and thematic seminars conducted to improve the skills and abilities of educators. For example: "How to create a multimedia presentation", "Preparation of interactive didactic materials via the Internet", etc. Implementation of such competitions as the electronic portfolio of the teacher, video presentation "Meet – my group"; electronic methodical materials and presentations for a game space.

The method is focused on the usage of video clips of environmental cartoons structurally contains the following stages of work: propaedeutic, viewing, reflective. At each stage, we offer students special tasks, the solution of which requires them to concentrate significantly with the usage of computer technology to environmentalize the play space.

Students' computer activities for the environmental education are important not only for the development of intelligence, but also for the development of their motor skills. In any game, from the simplest to the most complex, students need to learn to press their fingers on certain keys, which develops fine motor skills. Asharul Islam, Khan Zuhoor, Al-Khanjari Mohamed, Sarrab Source [2] note that the more we make small and complex finger movements, the more areas of the brain are involved. Like the hands, the eyes are also widely represented in the cerebral cortex. The more we look at what we are working on, the more effective the memorization process will be.

Communicating with the help of a computer is of a great interest to children, first of all as a game activity and only then as an educational activity. This interest underlies the formation of such important structures as a cognitive motivation, random memory and attention, because these qualities ensure the psychological readiness of the child to study at school and do not direct efforts to environmental education of students. Students' communication with the computer begins with computer games, is carefully selected based on age and educational orientation. A play is one of the forms of students' practical thinking. Therefore, the usage of computer games in educational activities is natural for a student and serves as an effective means of an increasing motivation and ensuring individualization of learning and development of personal abilities.

In the group a child operates with his knowledge, experience, impressions, which are reflected in the form of game modes of action, game signs, which are acquired in the semantic field of the game. One of the most important functions of computer games is educational. Computer games are designed so that a student can imagine a particular concept or situation, and get a generalized concept of all similar objects or situations. While playing on the computer, the student early realizes that the objects on the screen are not real things, but only signs of these real things. Thus, students begin to develop the so-called sign function of consciousness, it means that they develop understanding of several levels of the environment – these are real things, and pictures, diagrams, words or numbers, etc.

Table 1: The program of development of preschoolers in the eco-environment of a children's educational institution by means of computer technologies

The title of the educational event	The ultimate goal of computer software
1	2
Didactic game "How many things are in order"	Games – quests
Golden Key Connoisseurs Club	Educational computer games
Plot-role game "And the cat in honor of purity"	Computer diagnostic games
Valeological minute "How to wash your hands"	Games – fun
Relay Games "Collect Breakfast", "Help Grandma"	Educational computer games
Conversation "Vitamins for a child"	Educational computer games
Didactic game "Edible-inedible"	Computer diagnostic games
Story-role game "Hospital"	Games – quests
Fruit and Vegetable Modeling	Games – fun
Sports competition "Merry Starts"	Games – fun
Didactic game "Flower of Health"	Studying the sphere of health

Family role-playing game	Educational computer games
Theatrical performance "Be healthy"	Games – fun
Conversation-mode of the day "How is a child's day"	Computer diagnostic games
Reading a story V. Sukhomlinsky's "Lazy Pillow"	Educational computer software
Didactic game "Connect"	Educational computer games
Drawing "I do morning gymnastics"	Educational computer games
Didactic game "Choose clothes for the athlete"	Computer diagnostic games
Ball School “Stadium”	Games – fun
Sports competition "Mom, Dad and I are a sports family"	Games – fun
Travel-exclusive "Transport"	Create a mental map
Story-role game "Problem situations on the road"	Educational computer games
Didactic game "Name the sign"	Educational computer games
Psychogymnastics "Sounds of the road"	Games – fun
Studying B. Spisarenko's poem "Drivers"	Educational computer software
Exercises for empathy "I'm a truck"	Educational computer games
Board-printed game "Build a car"	Computer diagnostic games
Didactic game "Cars and Garage"	Games – fun
Theater of pictures on the flannel "Cars on the street"	Create a mental map
Story-role game "Drivers"	Educational computer games
Conversation "Children's entertainment"	Games – quests
Didactic game "Good-bad"	Educational computer games
Reading the warning poem by P. Korol "Baby, stop, don't run out"	Educational computer software
Didactic game "Ambulance presentation"	Educational computer games
Didactic game "Places for entertainment"	Educational computer games
Creating a layout of the street "We are passengers"	Educational computer games
Creative game "Let's go on a journey"	Computer diagnostic games
Didactic game "What you need for the trip"	Educational computer games
Consideration of illustrations "Evaluate the act"	Educational computer games
Reading of K. Chukovsky's work "Cockroach"	Educational computer software
Drawing "Bus"	Create a mental map
Didactic game "Rules of a traffic light-blinker"	Educational computer games
Thematic entertainment "Traffic light in kindergarten"	Create a mental map
Watching the video "New Adventures of Stobid"	Games – fun
Role-Play, “Who's Attentive”,“Situation Games”	Educational computer games
Story-role games "Rescue Service Manager", "Fire Report"	Educational computer games
Training games "Hello, fire service!", "Attention, evacuation, due to a fire!"	Educational computer games
Relay “Skilled Firefighters”	Computer diagnostic games
Story-role game "School of Extreme Situations"	Educational computer games
Didactic games "Choose safe items", "Guess by description"	Conversation on video illustrations
Watching the cartoon "Fixies"	Educational computer software
Composing a fairy tale based on pictures	Computer diagnostic games
Didactic game "Encrypted word"	Educational computer games
Moving games "Fire service rushes to the rescue", "Who's faster?"	Educational computer games
Game-training "I'm not afraid of needles"	Computer diagnostic games
Didactic game "What is possible and what is not"	Games – quests
Thematic entertainment "Young Pilot School"	Educational computer games
Holiday "Cossack entertainment"	Games – fun
Carrying out the competition "Extinguish the fire"	Games – fun
Thematic entertainment "Vesnianka"	Educational computer games
Seminar-training "Tolerance-legal education of preschoolers"	Computer diagnostic games
Seminar-training "Development of emotional intelligence as a prerequisite for the development of innovative personality"	Educational computer games
Implementation of the educational program "Sure Start"	Educational standard

Computer games teach students to overcome difficulties, monitor actions, evaluate results, promote their own safety and hardening of the body in a virtual eco-environment. Thanks to the computer, it becomes effective to teach purposefulness, planning, control and evaluation of the results of the students' independent activity, through a combination of playful and non-playful moments. Thus, the computer helps to develop not only the student's intellectual abilities, but also to cultivate strong-willed qualities such as independence, concentration, perseverance, encourages the student to empathize, help the heroes of games, etc., thus improving his attitude to the world.

Thus, the usage of modern measures for environmental education of students with the help of computer technology in the educational process in high education is one of the newest and most pressing problems in modern pedagogy. The modern educator faces the problem of finding a new pedagogical tool.

4. Results

At the Faculty of Pedagogical Education of Lviv University, students conducted research on the basis of the Private Kindergarten GlobalKids in Lviv with the aim of environmental education of preschoolers with the help of computer technology for 4 weeks. Parents of older preschool children were offered a questionnaire "Environmental education of children" to identify parents' attitudes to the relevance of ecology, environmental issues, environmental protection, environmental management, environmental education of older preschool children. It turned out that most parents know what ecology is and what it does, love animals, birds, have plants and animals at home, have a positive attitude towards nature, only 45% of respondents introduce children to the rules of behavior in nature. 63% of parents could not answer, 49% of parents need the help of a kindergarten to cope with this problem (for example, how to observe the weather, what practical activities in nature can be done with children). 71% of parents do not talk to children about nature, environmental activities. The results showed that fewer parents have a low level of environmental knowledge. 127 children of senior preschool age took part in the initial section. These are the groups "Kalinka", "Dandelions", "Sun", "Oaks" and "Birches". The main purpose of this stage was to determine the initial level of ecological ideas about the patterns and relationships of natural phenomena, the unity of animate and inanimate nature, the interaction and interdependence of nature, society and a person in older preschool children.

Table 2: The level of formation of ecological ideas in preschoolers

Development level	The control group (127 people)	
	Before the experiment	After the experiment
High	18 people (22,88%)	78 people (61,41%)
Satisfactory	101 people (79,25%)	45 people (35,43%)
Low	8 people (6,30%)	4 people (4,96%)

Table 2 and Figure 1 show that children with a higher level of environmental ideas in preschoolers are able to differentiate flora and fauna, explain their opinions, know the habitat of animals and plants, explain the peculiarities of plants and animals, without personal difficulties answer questions , are of great interest to learn more about representatives of flora and fauna, express their thoughts about houseplants, birds and animals, which was not observed at the initial stage of the study.

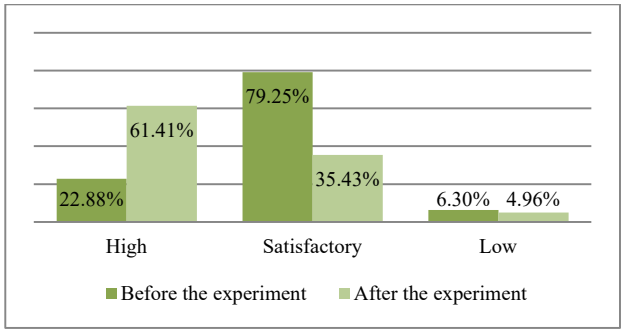

Fig. 1. Formation of ecological ideas in preschoolers

Children *of average level of formation of ecological ideas in preschoolers* do not have many mistakes in determining animals and plants by species, not in all cases can explain their choice of animals and plants, make mistakes in answering questions, show interest and explain their attitude to houseplants, animals, birds, name the conditions necessary for normal life, growth and development of plants as well as domestic animals, which at the initial stage of the study was also not observed.

The low level of formation of ecological ideas in preschoolers is characterized by the fact that children constantly make mistakes in determining the species of plants and animals, cannot explain their choice, do not know the habitat of plants and animals, do not name the distinctive features, do not answer questions, have no interest in plants and do not show their attitude to animals and birds, have no practical skills in the process of taking care about plants and pets.

Thus, the study provided an opportunity for university students to realize their creative potential in working with preschoolers, which indicates their self-organization and improving the quality of educational work with students on personal safety and protection of life with the use of computer technology; improving the theoretical knowledge and practical skills of teachers in the formation of students' values of their own way of life and environment.

5. Discussion of results

The essence of environmental education is in the necessity to set the foundations of environmental awareness in a person, starting from early childhood. Namely, the key categories of environmental education are – worldview – values – attitudes – behavior, which are components of the whole system, performing certain functions that have relative independence, but they are all interconnected and interact in the organization of environmental education.

The development of international cooperation and global partnership in order to preserve, protect and restore the environment within preschool education is relevant in such conditions as: rehabilitation of impaired functions of the child

in working with computer technology and environmental security in acquiring skills and abilities in preschool, efforts to adopt effective rules for the protection of childhood, motherhood and protection of the population from the negative effects of information and communication technologies, and the conclusion of relevant international agreements on the transition to sustainable development; ensuring free access to eco-information of the network service, development of indicators of progress on the way to creating the necessary databases, global and national communications and the usage of other means of information to solve global problems of post-industrial information society at the stage of preschool education; formation of a new legal framework and new principles of governance (including supranational and global) in the field of a child protection, motherhood and labor, eco-environment and environmental management, prevention and elimination of negative consequences, which should lead to sustainable improving of pedagogical activities; greening of human consciousness and worldview, radical reorientation of the system of education, morality, culture, art, science and technology to new civilized values and goals, etc.

The central component in the structure of preschoolers' play activities is a socially accepted way of behaving in different situations [9]. In the game, children play a variety of roles, the number of which increases with the age of 10. Not all roles are given to the preschooler equally well, 2-3 of them stand out as favorites. Role behavior is governed by the rules that create the core of the role. Therefore, the assimilation of a role behavior by the child is a powerful means of developing arbitrariness as a leading personal quality. The child learns to build their behavior, obeying the requirements of the role as a socially acceptable pattern of behavior. Performing the role, the child restrains his direct impulses, yields to personal desires and demonstrates a socially acceptable pattern of behavior, expresses ethical assessments. Although the seller wants to taste the candy, he does not. Speaking in different role positions, the child perceives the situation from different points of view: if the bus driver suddenly wants to change the route – "passengers" will protest. This promotes the development of the child's understanding of other people on the basis of mastering the mechanism of decentralization. At the same time, you become more aware of your responsibilities to others. The girl used to be cranky, stubborn, and difficult for her mother. As a mother in the game, she realized how important it is for her daughter to be obedient. Thus, playing activities develop in the child the skills of social perception and interaction, teaches the child to appreciate positive relationships between people, reveals the interdependence between them.

Computer (visual) games and exercises should be considered as a special tool that stimulates children's creative activity and is necessary for the environmental education of children. They are interesting and accessible, and the game tasks contained in them have not only educational material, ways and means to solve it, but also a motive and purpose that stimulate the child. A child working on a computer has a real opportunity to see the result of his work on the screen.

Conclusion

Thus, the formation of each student's active life position on their own safety, equipping him with knowledge and skills of safe behavior at home and in higher education in working with computer technology contributes to the education of environmental and psychological features of didactic play space for students by computer technology. which helps to improve their professional level in working with children and encourages them to look for new non-traditional forms and methods of learning, to show creative abilities; to increase children's interest in learning, to intensify their cognitive activity, which improves the quality of learning material by students. In particular, the use of computer technology helps to consolidate knowledge, skills and abilities of both preschool children and students in solving cognitive-creative tasks. So the use of multimedia in teaching not only increases the speed of information transfer to students, but also increases the level of its assimilation, promotes the development of such processes as attention, memory, thinking, imagination, speech, develops a sense of creativity, composition, enhances their intellectual, emotional and moral development.

The use of multimedia presentations in classes allows you to build an educational process based on psychologically correct modes of functioning of attention, memory, humanization of learning content and pedagogical interactions, reconstruction of the learning process and development from the standpoint of integrity.

During computer classes, students increase their independence, creativity, desire to implement their own ideas.

Currently, cyberspace is actively developing. Today, future preschool teachers have mastered the skills of working with Google services (blogspot), which allows them to create personal blogs. One of the new forms of organization of methodical work, based on the usage of computer technology and information literacy, is the creation of a networked pedagogical Internet community. The network organization of methodical work promotes a better exchange of experience between teachers not only of a particular educational institution, but also institutions of the whole region, and even the country and the world. Therefore, it is necessary to carry out organizational and methodological activities aimed at developing networking of participants in the educational process in a children's school: a seminar for leaders of children's schools on the topic "Network communities in the activities of preschool teachers", a seminar for educators on the topic "Information space preschool teacher institution ", which is the basis for further prospects of the study.

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