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Nature therapy
as health improving technology
in the educational process of primary school

Introduction

Development of the Ukrainian state, democratization of public life, revival of national culture, strengthening of integration processes modernize and intensify the attention to education. It should be a priority, continuous, person-oriented, humanistic-value, it should ensure the self-development of the pupil’s personality.

Changing the philosophy of a human requires changes in the philosophy of education, personal development. Modern society is now in the process of updating the concept of human capabilities, potential and goals. Thus, the task of understanding and cognizing new pedagogical realities, creating the new philosophy of education, open to the aspirations of a human, his life and spiritual world, has been actualized. On such principles, the new pedagogy should be formed, the center of which is the pupil with his or her needs, capabilities, potential.

Therefore, the school is called upon to educate the individual, who aspires to constant self-development, self-improvement, realization of the own potential, capable of realizing and being responsible for his or her activity. However, as the results of psycho-pedagogical and medical-sociological researches show,
any social and educational reforms will not be effective until the pupils are healthy, developed, preferring deliberately healthy lifestyle.

**Statement of the main theses**

The main goal of environmental education today is not only the awareness of the latest scientific-ecological developments and achievements, but the need to form the new ecological thinking that will be able to synthesize scientific knowledge and aesthetic attitude to the environment, the need to “teach to live” the modern public in the realities of today¹.

This approach requires from education the overcoming established stereotypes regarding the perception of the child as a passive object of educational influence, searching for effective technologies for restoring the physical, mental, spiritual health of junior pupils, making maximum use of the positive influence of all natural objects on his or her personality both during and after school.

All mentioned above illustrates the urgent need to fill the content of primary education with the concern for the health of children. It involves the introduction of the system of pedagogical, medical, social measures, aimed at restoring, correcting or compensation of the disturbed psychophysical functions, states, personal and social status of children. It is about helping the child in crisis situations, in the optimal adaptation to the new socio-economic and political conditions.

Thus, today the main task of pedagogical collectives of the primary level of education is the creation and use of the set of health-educational activities aimed at strengthening and preserving the health of a junior schoolchild.

However, nowadays, scientists still pay little attention to the positive impact of nature on the development of the personality of the pupil and the role of environmental education in this process. Therefore, it is necessary to rethink the content of the school’s teaching and upbringing work, to introduce new teaching technologies that provide for the positive influence of nature as a whole and its individual objects on the psycho-physiological state of younger schoolchildren, and to promote the development of children’s life activity².

Thus, one of the priority tasks of modern higher pedagogical education is the formation of the new generation of teachers capable of systematically correcting the education and upbringing of children, relying on the living nature.


² M. I. Drobnohod, *Konceptual’ni osnovi formuvannâ ekologìčnogo mislennâ ta zdìbnostej lûdini buduvati garmonìjnì vidnosini z prirodoû*, MAUP, Kïïv 2006, p. 76.
Theoretical provisions of environmental education are actively developed by modern and foreign pedagogues. Ecological preparation of the future teacher has been studied by Elena Beda, Mariá Bočeva, Sergej Ivašenko, Ivan Matrusov, Tatâna Ninova, Vitaliâ Slastënin, Vera Transkaâ, Galina Tarasenko, Eva Flečar, Alevtina Černikova, Natal’â Ásinskaâ. The analysis of the state of preparation of the future teachers by means of local lore and tourism has been carried out by Taras Vajda, Mihail Kostryca, Vasilij Oboznij, Svetlana Sovgira, Alexander Timec.

An important place in the system of continuous environmental education belongs to the primary school. At the same time, the peculiarities of the positive influence of various natural objects on younger schoolchildren have been studied superficially, and most of the questions of this direction remained without due attention of specialists. But the need for such research is now urgent, primarily because of the significant increase of the attention of modern scientists to the study of such a phenomenon as the positive impact of natural objects on the mental and physical state of children, which is called “nature therapy”.

In modern scientific-methodological literature, the expediency of using the combination of forms, methods, models, and technologies for the formation of the fully developed personality has been grounded.

At the present time, the terms-synonyms “eco-therapy” and “nature therapy” are used to determine the therapeutic effect of nature on the human body, however little attention is paid to their use in the educational context. Given the relevance of the above mentioned, let us dwell in more detail on the definitions of “therapy” and “nature therapy”.

Therapy or therapeutics is a healing medical art, treatment. Therapy (therapeutics) – is a direction in medicine, associated with various conservative methods of treating diseases and treating the body (therapeutics), with the use of medicinal substances. Therapy (Greek: therapeia – treatment) is the area of medicine that studies internal diseases, one of the most ancient and basic medical specialties. Other than surgical methods of treatment are also called therapy.

The natural environment (water, air, sun, cold, smells, noise of the forest, etc.) has been used by different peoples for healing and disease prevention since

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ancient times. Folk nature therapy is a combination of folk knowledge, methods and means of using curative factors of nature for the prevention and treatment of diseases, for maintaining and strengthening human health. Nature therapy, in our understanding, is, first of all, health-enhancing effect on the human body by means of nature.

As we can see, the term “nature therapy” belongs to the medical sphere. However, let us examine the studied definition from the psychological-pedagogical point of view.

In this sense, it is advisable to consider the process of learning through the prism of the child’s recovery by influencing the environment. Thus, the Russian scientist Tatiana Rezer concludes that the success of solving problems of modern humanist-oriented pedagogy is possible only if the medical and pedagogical sciences are integrated. At the present stage of the development of the society such mutual penetration should be recognized as a priority, oriented towards ensuring self-determination and self-realization of the personality. So, the peculiarity of the use of nature therapy is to provide the pedagogical actions of health-improving, therapeutic sense.

The idea of using various natural means, laws and forms of organizing the educational process in pedagogy appears even in ancient times of Ancient China, India, Greece. The great importance of the didactic natural material, the purposeful use of natural resources by the pedagogue in the organization of the educational process, was provided by Rudolf Steiner, Jan Amos Komensky, Stanislav Šackij, Vasilij Suhomlinskij, Aleksander Zaharenko.

The powerful effect of nature therapy – the restoration of health through communication with nature – is not only to significantly improve the physical and mental state, but also to enhance the intellectual abilities of the child. The French scientist Claude Bernard noted that the constancy of the internal environment is an important hereditary feature of a healthy organism. He argued that this protects the human body from the physical and chemical influences of the external environment.

It has now been proven that communication with nature has the powerful therapeutic effect on a human. Studies of the UK scientists have shown that

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6 T. M. Rezer, Medicina i pedagogika na puti integracii, „Pedagogika” 2007, no. 7, p. 83–90.
long walks in nature help to get rid of the symptoms of depression, and besides medicine people should receive eco-therapy (nature therapy) sessions.\(^9\)

The most healing and effective factors in harmonizing the spiritually aesthetic world of the child of the era of urbanization and man-made disasters are natural resources. The therapeutic-corrective meaning of this influence on the emotional-sensory sphere of a man, according to Olga Fedij, is considered today in two directions: nature therapy as the independent psychotherapeutic method, use of the curative influence of nature on the human condition as a background component of other rehabilitation methods.\(^{10}\)

Valuable for our study is the thesis proposed by Natala Bezludna\(^{11}\) that the activation of the joint work of the right and left brain hemispheres of the pupil contributes to the development of his or her learning activity through the comprehensive approach to the perception of the phenomena of nature.

Vasilij Suhomlinskij warned against excessive verbal-conceptual influence, causing rapid brain fatigue and poor academic performance. Rest in the midst of nature and “absorption with the whole heart” of sounds, colors, fragrances, fairy tales with their intonation variety (music therapy, color therapy, aromatherapy, word therapy) – all these pedagogical techniques he proposed to use to strengthen the immune system of children, care for their body and soul balance.\(^{12}\) The pedagogue saw the way of development of a healthy child in the emotional, valeological and cultural-health components of the teaching content, taking into account the functional asymmetry of the brain hemispheres.

The study of the functional characteristics of the human brain showed that the left hemisphere performs speech functions. It is more adapted to analytical thinking and operations with sequential signals, whereas the right hemisphere – to synthesis and associative activity. The cells of the children’s brain are so tender, so responsive to the objects of perception that they can work normally only if the object of perception, reflection is the image that can be seen, heard, which one can touch.\(^{13}\)

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10 Èkoterapià, ili nazad..., op. cit.


The left hemisphere of the brain acts on the discrete basis, analyzing information flows (verbal, sensory, structural). It is leading in the implementation of the processes of abstract, symbolic, intellectual activity. The structures of the left hemisphere predict the behavior of the organism in the future. The “left hemisphere” personality can be quite talented, but due to the loss of prosodic components of speech, intonation coloring, the voice of such a person becomes unattractive. The sounds of nature seem to him or her monotonous and uninteresting noise. This person is indifferent to singing, to music, this individual loses a musical ear.

The right hemisphere forms single equipotential structure due to well-developed internal associative connections (Valery Balanov, Vadim Deglina). Its full development is crucial for the adaptation of the child to the external environment; saving himself or herself as a personality; protection against harmful effects of the external environment. The right hemisphere dominates in the process of concrete-figurative thinking, in the course of activities related to the activation of the emotional sphere of the spiritual life of the personality. The hemisphere of the artistically-shaped perception of the world (right) functions in real time and reflects the irritation of the current moment or impression of the past. It is with the activation of the right hemisphere that the development of figurative memory (eidetics) is connected.

Now the teaching-methodological components for primary school pupils are developed mainly with the support on the “left hemisphere”, verbal-conceptual perception of information. The same functional areas of the cerebral cortex become active and work intensively, which affects the nervous state, stability of the pupils, and leads to the weakening of the body’s immune system. The purposeful activation of the activity of the right, artistically-imaginative hemisphere of sensory information will promote the disclosure of those reserves of health and activity that remain untapped in the left hemisphere state (under the condition of prevalence of verbal influence). Normal mental activity involves the joint work of the two hemispheres, since the unification of the mechanisms of figurative and abstract thinking provides comprehensive (concrete and theoretical) approach to the perception of environmental phenomena.

Interesting, in our opinion, is another, informational, approach to the subject of our study. As noted above, therapy has the corresponding effect on

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various human sensory systems. Consequently, it is logical to assume that it is the polytypic information coming to the person from the environment that causes positive (therapeutic) effect and involves incentive functions to perform any (including educational) activity with increased internal motivation.

Any information, coming to a person from the environment, forms the single resonant field, and it is instantly recognized by the laws of analogy. Such a field of information perception in the pupil’s personal information environment consists of: visual or color-graphic information (visible objects), sound information (speech, music, noise), olfactory information (volatile substances), taste information (nutrients), tactile-kinesthetic information (spatial subjects).

Adaptation of this approach to the essence of the concept of nature therapy as a means of influence of nature on the pupils of the junior classes, in the context of our work, allowed us to formulate the investigated definition as a positive influence of natural information on the pupil with the goal of forming the active operational-activity life position and preserving his or her personal health.

Let us consider the types of nature therapy as a means of forming personal information environment of the pupil of primary classes, within the framework of which the realization of health goal of the educational process of the primary school is realized.

**Olfactory natural information**

Aromatherapy (from the Greek: aroma – aromas & therapy) – a variant of alternative medicine, which uses the impact on the body of volatile aromatic substances derived from plants. The growth of chronic diseases of people is associated with the ecological state of the environment, as well as with an increase in the allergic reaction of the body to healthcare products and medicines. Aromatherapy (therapy by scents) can overcome this situation. Aromatic therapy is a method of influencing a person’s state of feeling with the help of odors. The term “aromatherapy” was proposed by the French chemist and perfumer René-Maurice Gattefosse. Natural aromas regulate the physiological systems of every living organism. At the same time, no artificial flavor is capable of performing such a function.

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Thalassotherapy (from the Greek: thalassa – sea & therapy) – treatment with the sea is a treatment with sea water, sea air, algae, sun rays.

Aerotherapy (from the Greek: aer – air & therapy) – use with the preventive and curative purpose of fresh air. Aerotherapy improves nerve regulation and enriches the body with oxygen. It is used in the form of air baths (warm, cool or cold). Of course, aerotherapy is combined with walking and moving games\(^\text{18}\).

**Sound natural information**

Music therapy – treatment with music. Music therapy is a medicine one need to listen to. Physicians found out that the positive emotional excitement during the sounding of pleasant melodies increases the tone of the brain, improves metabolism, stimulates breathing, blood circulation\(^\text{19}\). Pleasant emotions, caused by music, improve mood, activate attention, increase efficiency.

Tale therapy – treatment with fabulous atmosphere in which potential personality’s traits can appear; a dream can be materialized; and most importantly – there is a sense of security and taste of secrecy. Tale therapy contributes to the formation of connection between fairy-tale events and behavior in real life, the transfer of fairy meanings into reality. Tales are the important psychotherapeutic tool that helps to regulate person’s inner world\(^\text{20}\).

Game therapy – treatment with a game. In the 1920’s psychotherapists Anna Freud, Melan Klein, Hermina Hag-Hellmuth called the children’s game the method of treatment. The psychologist, the developer of methods for game therapy Mihail Panfilov concluded that with the help of the game it is possible to evoke cognitive interest in the environment, fantasy, to teach how to properly make a dialogue, positively influence on the physical and mental state of children, develop communicative and intellectual abilities\(^\text{21}\).

**Visual natural information**

Chromotherapy or color therapy (from the Greek: chroma – color, paint & therapy) is the treatment with light and color. Color therapy is based on the effect of color on the human nervous system. There are two directions of color


\(^{19}\) N. F. Denisenko, Ozdorovčì tehnologìï v osvìtn'omu procesì, „Doškìlne vihovannâ“ 2004, no. 12, p. 4–6.


therapy: direct influence on the human brain and the creation of the necessary color therapeutic environment.

**Taste natural information**

**Phytotherapy** (from the Greek: *phyton* – plant paint & therapy) is the ancient way of treating with herbs.

**Climatotherapy** (from the Greek: *klima*-slope of the earth’s surface to the sun’s rays & therapy) – a set of treatment methods that use the dosed impact of the climate of the area and special climatic procedures. Close interconnection of meteorological factors with the state of human health is noticeable. Biological influence of the climate is diverse: it calms and tones the nervous system, improves the regulation of physiological functions, activates the metabolism, respiratory function, blood circulation, digestion, increases immunity, body’s resistance to infectious diseases.

**Tactile-kinesthetic natural information**

**Hydrotherapy** (from the Greek: *hydor* – water & therapy), external use of fresh water (water, river, lake, rain) for the purpose of treatment and prevention of diseases) is the use of water in any of its manifestations (ice, cold, hot, fresh, mineral, steam) for preventive and curative purposes. Today, pouring, wiping, washing, shower, bath, compresses, wrapping, bathing, intestinal lavage, hydromassage are widely used.

**Art therapy** (art and painting & therapy) – treatment by art. So, art therapy is a treatment with the help of any artistic creativity. Art therapy is the modern direction of psychotherapy. In the Psychotherapeutic encyclopedia, edited by Boris Karvasarski, this direction is interpreted as follows: the use of art as a therapeutic factor. This therapeutic direction, connected with the use of various materials by the patient and the creation of visual images by means of figurative activity and his or her reactions to products created, reflects the features of his or her mental development, abilities, personal characteristics, interests, problems, conflicts and the like.

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Nowadays, the formation of readiness of the future teacher, first of all, of the primary school teacher, to use the possibilities of natural objects in preserving and restoring the child’s physical and mental health becomes urgent. It requires updating the content and forms of organizing the training, in particular, recognizing, among professional priorities, the responsibility for the environment and the health of pupils; the desire to enrich the teaching methods of basic disciplines with nature-therapeutic means; the availability of the system of knowledge, skills and abilities that form the basis for the creative carrying out the professional functions, aimed at environmental and nature-therapeutic activity; the readiness of the future teacher to create new knowledge, techniques and technologies that would realize the educational and recreational goals.

The preparation of the future primary school teacher for the use of the nature therapy in professional work is a system process with clearly defined structural components, integrative properties, functions and algorithmic control, and then it has all the signs of technology, aimed at achieving concrete results. The normative component of the presented technology takes into account the state standard of primary education; principles of both didactic and environmental education, the goal, aimed at the formation of the system of professional, environmental and nature-preserving knowledge; the system of intellectual, practical skills for studying, assessing, improving the state of the environment and the health of junior schoolchildren.

Efficiency of formation of readiness of the future primary school teachers for the use of nature therapy in work with primary school pupils is ensured by the combination of pedagogical conditions, which are the set of elements of the learning environment combined with the specifics of the training of the specialist in a particular sphere.

Conclusions

The generalization of the above mentioned approaches provides the basis for the conclusion that, in a definitive sense, nature therapy is a positive influence of the natural information on the pupil with the aim of forming active operational-activity life position and maintaining personal health. At the same time, we regard nature therapy as a specific pedagogical technology of preserving and correcting health and activating the cognitive function of pupils of junior classes on the basis of the influence of objects of the natural environ-

ment, as pedagogical “treatment” by means of nature in the educational process of the primary school, while realizing the need to develop the complex of appropriate technological methods for the preparation of the future primary school teachers for the use of nature therapy in their work with primary school pupils, while the willingness to use nature therapy is a specific ability of the future pedagogue, aimed at implementing the nature-therapeutic influence on the psychophysical health of schoolchildren. The result of the introduction of technology is the readiness of future primary school teachers to the use of nature therapy in work with pupils.

The priorities of environmental education of students of pedagogical higher educational institutions in general, as well as the formation and development of their readiness for the use of nature therapy in the educational process in particular, should be aimed at the formation of the emotional-value sphere of the child’s relationships with nature, the formation of interest in environmental and nature-therapeutic problems that are consistent with the development of general cognitive, educational and recreational processes, sensory nature-appropriate standards and value orientations.

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Summary

The article reveals the peculiarities of nature therapy as a health-improving technology in the primary school process. It is about new priorities in modern environmental education. In the definitive sense, nature therapy is the positive effect of natural information on the pupil in order to form an active operational and activity position and maintain his or her personal health. The article focuses on the technological aspect of the nature therapy. That is, this phenomenon is considered as a specific pedagogical technology of preservation and correction of health and activation of cognitive activity of pupils of primary classes on the principles of influence of objects of the natural environment, as a pedagogical “treatment” by means of nature in the educational process of primary school. The attention is focused on the physiological, medical, psychological and pedagogical components of the technology described.
Nature therapy as health improving technology in the educational process of primary school

The attention is drawn to the fact that the technology of preparing the future teacher of primary classes for the use of nature therapy in work with younger pupils on the basis of interdisciplinarity and integration, involves the formation of the system of value attitude to nature, knowledge, skills and abilities that enable students to use the means of nature therapy in the training, and subsequently in professional activity.

**keywords**: pedagogical technology, nature therapy, therapy, factors of influence, pupil’s personality

**słowa kluczowe**: technologia pedagogiczna, terapia przyrody, terapia, czynniki wpływu, osobowość studenta