

I. Diachenko,
Student,
O. Mykhailova,
PhD (Education), Associate Professor,
Zhytomyr Ivan Franko State University

PRESCHOOL AGE AS A KEY STAGE IN THE FORMATION OF NATURAL AND ECOLOGICAL COMPETENCE IN CHILDREN

Preschool age is a period of active cognition of the surrounding world. A child absorbs everything new like a sponge, and his natural curiosity is aimed at exploring everything that surrounds him. This period is extremely favorable and important for the formation of natural and ecological competence due to the peculiarities of the physical, cognitive and emotional development of children.

The issue of the formation of natural and ecological competence in preschool children is not new, but remains relevant. This is evidenced by a significant number of scientific publications and projects, conferences of various levels. The importance of the natural environment in the development of children is found in the views of teachers of the past. In particular, V. Sukhomlynsky, S. Rusova in their pedagogical activities focused on involving children in practical interaction with nature through observation, research activities and emotional connection as the basis of aesthetic perception of the natural environment and the formation of ecological consciousness. Teacher M. Montessori in the development of independence and awareness of ties in nature in preschool children focused on creating a special educational environment with a variety of natural materials.

Modern research by scientists is aimed at: studying the effectiveness of various methods and forms of work with children in the context of the formation of natural and ecological competence; the influence of parents and educators on the formation of a child's attitude to nature; the peculiarities of the influence of the natural environment on the development of ecological consciousness and the role of information technologies, in particular gadgets and programs in the ecological education of children.

In particular, N. Gavrish developed approaches to organizing space in preschool education, where children could interact with natural materials and objects; A. Bogush – investigated the features of environmental education through reading fairy tales, poems and stories about nature; O. Sorochynska considered the features of the formation of natural and ecological competence of children of senior preschool age through the prism of search and research activities, V. Tanska, A. Dragalchuk using STREAM education; A. Iskryzhytska using game technologies. The results of scientific and methodological research were reflected in the comprehensive educational programs for the development of preschool children “Confident Start”, “Child”, “Ukrainian Preschool”, “Paths to the Universe”, “World of Childhood”, “Preschoolers – Education for Sustainable Development” and partial ones “Little Researchers of Nature”, “You Need to Know About Yourself, You Need to Take Care of Yourself”, “Environmental Education in a Preschool Institution” and “Nature and

the Child”.

The analysis of scientific and methodological literature allowed us to identify key definitions of the concept of “natural and ecological competence of children of younger preschool age”, in particular, it is the child’s ability to behave appropriately in the natural environment (Yu. Petrenko) [6], the ability to respond appropriately to various circumstances that arise in the natural environment (Basic component of preschool education) [1], a value-based attitude towards nature (O. Maksymova, T. Kovaluk) [4], a complex of knowledge, values, motives, feelings and skills of children (V. Novitska) [5], an integrally meaningful ability of a person to understand the value of the environment, use knowledge, experience, make balanced ecologically appropriate decisions, and a willingness to preserve the natural environment (A. Dragalchuk, A. Iskryzhytska, O. Sorochnytska,) [3; 7]. Based on the generalization of the essence of the above concept, we formulated our own interpretation. So, under the natural and ecological competence of children of younger preschool age we understand an integral characteristic that reflects the basic level of knowledge, abilities, skills, value orientations and experience of the child related to nature and ecology.

The effectiveness of the formation of the specified problem prompts the isolation of the structural components of the natural and ecological competence of children of younger preschool age. The specification of structural components allows us to consider competence as a system of interconnected elements, which makes it possible to influence each component separately, while maintaining the integrity of development; to understand which aspects require attention; to ensure a balance between different types of activity - for example, observation, research activities, creative play; to develop criteria and levels of assessment; to plan work consistently, covering all aspects of natural and ecological competence. Therefore, knowledge of structural components allows us to clearly determine which aspects of development should be ensured, what methods should be used and how to evaluate the results of work.

Analysis of the scientific achievements of teachers shows that the structural components of the natural and ecological competence of preschool children are: cognitive, motivational, emotional-volitional, value-based and behavioral-activity (O. Maksimova) [4], intellectual (cognitive), emotional-value-based and activity-practical (G. Belenka and O. Polovyna) [2], motivational-value-based, cognitive-activity-based and emotional-reflexive (T. Ilchuk), motivational, cognitive, emotional-volitional, communicative and creative (S. Vysoeva and L. Kozak), motivational, emotional-value-based, cognitive, behavioral (O. Sorochnytska, A. Iskryzhytska) [3], etc.

The generalization of scientists' views on the structure of natural and ecological competence of children of younger preschool age made it possible to determine the most important: cognitive component: knowledge about nature, its objects, phenomena and relationships; emotional and value - attitude to nature, love and respect for the environment; practical - skills and abilities of environmentally appropriate behavior; research - the ability to observe, analyze and draw conclusions about natural phenomena.

The effectiveness and efficiency of the formation of natural and ecological competence in children of younger preschool age depends on the methodological

toolkit - a system of methods, techniques and teaching aids that take into account the age characteristics, interests and capabilities of children. The effectiveness of these methods depends on their interactivity, emotional appeal and practical orientation. In order to maintain children's interest in the topic and encourage them to take action, it is necessary to provide a variety of methods and techniques. In the process of familiarizing children with the material of natural and ecological content, teachers usually use traditional approaches: visual, practical and verbal. It is also advisable to use innovative and interactive methods, such as problem situations, modeling, polylogues, and projects, to improve educational interaction with children [8].

The modern world offers many innovative tools that can be used to form natural and ecological competence in preschool children. For example, digital technologies (interactive boards and programs, ecological mobile applications); project activities; game methods (robotic toys, VR technologies - immersing children in virtual reality, where they can find themselves in different natural environments, online games); other innovative tools (3D printing - creating models of plants, animals, natural landscapes); touch panels that allow children to feel different textures, temperatures, sounds; smart devices - using smartphones and tablets for taking photos, video, creating presentations). In addition to the above, an effective tool is natural Smart boxes, which can be easily made in the conditions of preschool education and involving children and parents in this process. A natural Smart box is a specially designed set of materials and tools designed for conducting experiments, experiments and games related to the study of nature. It can include various natural materials (pebbles, sand, shells), scales, plants, seeds, cereals, tools for experimenting and caring for plants, toys, as well as pictures, photographs, flash cards for demonstrating natural objects and phenomena, as well as for developing observation and analytical skills. We see the main tasks of using natural Smart-boxes in the formation of natural and ecological competence in children of younger preschool age as: the formation of solid knowledge about nature and ideas about the relationships in nature, the development of observation, the upbringing of a caring attitude towards it and the development of the necessary skills for interacting with the surrounding world and creative abilities.

Therefore, the formation of natural and ecological competence in preschool age is key to the development of a harmonious personality, which in the future will be able to treat nature responsibly. This period also determines the basis for the formation of environmental awareness and behavior, which is important for the sustainable development of society.

REFERENCES

1. Basic component of preschool education / Scientific supervisor: T.O. Pirozhenko, corresponding member of the National Academy of Sciences of Ukraine, prof., doctor of psych. sciences; Authors: N. Gavrish, Brezhneva, O. Belenka, O. Bayer, O. Reypolska, L. Zagorodnia, M. Mashovets, O. Polovina, N. Levinets, I. Mordus, A. Shevchuk, O. Kosenchuk, O. Bezsonova, O. Korneeva, S. Neryanova, G. Lysenko K.: Publishing house, 2021. 37 p.
2. Preschoolers about the world of nature: children of the fifth year of life / Galina Belenka, Olena Polovina. Kyiv: Geneza, 2016. 96 p.

3. Iskryzhytska A. Formation of natural and ecological competence in children of senior preschool age by means of game technologies / A. Iskryzhytska, O. Sorochynska // Innovative processes in preschool education: theory, practice, prospects: collection of scientific works: in 2 parts / [ed. by O. O. Maksymova, M. A. Fedorova]. Zhytomyr, 2022. Part 1. P. 128-132.
4. Maksymova O., Kovalyuk T. Content and methodical support for the formation of environmental competence in children of senior preschool age // Scientific notes of the Vinnytsia State Pedagogical University named after Mykhailo Kotsyubynsky. Series: Pedagogy and psychology: Collection of scientific works. Issue 56 / Editors: V.I. Shakhov (head) and others. Vinnytsia: "Tvory", 2018. 65–69 p.
5. Novitska V. Innovative technologies for the formation of environmental competence in children of senior preschool age // Introduction of modern technologies in the process of ensuring high-quality training of future specialists of preschool education: collection of scientific works / ed. L. Zdanevich, L. Pisotskaya, N. Myskova, L. Onofriychuk. Khmelnytskyi: KhGPA, 2021. 173–177 p.
6. Petrenko Yu. Modern approaches to the formation of natural and ecological competence of a preschooler in preschool education. URL: <http://surl.li/euebtw>
7. Sorochynska O. A. Formation of natural and ecological competence in preschool children by means of STREAM education / Sorochynska O. A., Tanska V. V., Dragalchuk A. P. // Eurasian scientific discussions: Proceedings of the 4th International scientific and practical conference. Barcelona, 2022. P. 287-292.
8. Staienna O. Analyzing the educational process: natural and ecological direction. URL: <https://emetodyst.expertus.com.ua/10004961>