Forming ecological culture in Russian language lessons

Abstract. Modern environmental problems do not lose their relevance, since without their solution it is impossible to imagine the formation of environmental consciousness, which is necessary for cultivating a responsible attitude towards the environment and its resources. One of the main ways out of the crisis is the development of ecological culture among the younger generation. The purpose of the study is to show possible ways of integrating ecological culture into Russian language lessons. Achieving this goal determines the setting of a number of tasks, including the identification of difficulties and problems that hinder the formation of ecological culture in the general educational process. The study used both methods of questioning, testing, conversations, and methods of generalization and mathematical statistics. The indicated methodology made it possible to show and prove that it is possible to form an ecological culture with maximum efficiency in Russian language lessons. The main results reflected in the article allow a more fruitful approach both to the process of forming an ecological culture among schoolchildren and to the professional training of a future Russian language teacher. The conclusions indicate that the proposed constructive approach to the stated problem makes it possible to integrate environmental topics into humanitarian school subjects, in particular, the Russian language, thereby most effectively contributing to the environmental education of students. The novelty of the work lies in the study of the levels of training of future teachers of the Russian language, as well as in approaches to studying the formation of the ecological culture of schoolchildren.

1 Introduction

In the “National Doctrine of Education in the Russian Federation” (2022), which is the main state document and determines the vector of domestic education, one of the goals and objectives of education is environmental education, the formation of a careful attitude of the population towards nature.

The “Concept of environmental education in the system of general education” (2022) notes that environmental education is not limited to issues of nature protection and the study of the basics of bio- and geoecology and is carried out within the framework of natural science subjects and the humanities.
2 Materials and methods

In the modern world, the issues of ecological culture are quite often found in the research field of scientists of various levels. In the 2022/2023 academic year at Bunin Yelets State University students, future teachers-philologists, were involved in the process of studying this problem, who were to determine the role of eco-culture not only for teachers, but also for schoolchildren. At the same time, it was necessary to find out how much the students themselves are aware of this issue, and how the presence of certain problems contributes to the formation of the ecological culture of schoolchildren.

In the presented work, various methods were involved, including conversations, test tasks, questionnaires, and the analysis of the regulatory framework in the relevant area, as well as the use of methods for generalizing independent characteristics and mathematical statistics.

The research was carried out on the basis of the Institute of Philology of Bunin Yelets State University.

This work appeals to the “Naturafil” method (authors S.D. Deryabo and V.A. Yasvin [14]), which makes it possible to determine the formation of the motivational-value
component of the readiness being studied. The use of this technique allows us to obtain reliable results.

To identify the level of motivational-value attitude to nature, the authors turned to the “Naturafil” method, aimed both at highlighting the sensory-expressive elements of nature, and at the manifestation of the corresponding reaction in students.

The results of the application of the “Naturafil” methodology thus give a comprehensive description of interaction with nature, show the interest of students in the rational organization of the use of natural resources. The work on identifying the initial level of the motivational-value component of students in line with environmental education is demonstrated by the data shown in the figure.

Fig. 1. Levels of motivational-value attitude to nature of the 2nd year students of the Institute of Philology

As a result of the study, it was revealed that the level of motivational-value attitude to nature of students is average, there are no extremely low or, conversely, very high index.

The second part of the study was aimed at identifying the levels of the cognitive criterion for preparing students for the formation of the ecological culture in schoolchildren. Students were asked to complete an anonymous questionnaire. Here is the text of the questionnaire:

1. How do you understand the term “ecological culture”?
2. Does a modern man need knowledge about ecological culture?
3. Do you have the necessary theoretical knowledge and practical skills for the formation of ecological culture?
4. What knowledge and skills for the formation of ecological culture do you lack to work with children?

Questions for this questionnaire were not chosen randomly. Firstly, we were interested in whether students understand the essence of the term “ecological culture”; what percentage of students will correlate the concept of “rational nature management” with “environmental and pedagogical activities”. Secondly, it was important for us to find out whether the students in their answers would indicate the importance of environmental management for the daily life of every person. We believed that students who chose the profession of a teacher, imagining its complexity and responsibility, should be aware of the importance of a personal example for schoolchildren. Thirdly, we wanted to determine the
extent to which the students themselves determine their readiness for the formation of the ecological culture in schoolchildren.

To the question posed in the conversation: “Are you taking any steps to fill the gaps in your knowledge in the field of nature management, ecology, pedagogy, etc.?” only 22% of all students surveyed answered that they turned to additional sources during the period of preparation for semester exams. Among them are: scientific literature, the Internet, popular science journals.

During the conversation, we asked students to highlight the knowledge and skills that they needed for successful work on the formation of environmental culture in schoolchildren. Students note the paramount importance of direct knowledge of their subject and the specifics of its teaching methods, possession of the conceptual apparatus of environmental science, as well as understanding the psychological characteristics of students. Speaking about priority skills, students singled out communicative, perceptual and organizational ones. The results of the study showed that the noted knowledge and skills are “basic” ones.

The study showed that the vast majority (77%) of students are at a low level of readiness for the formation of environmental culture in schoolchildren, 23% are at an average level. Students did not have a high level of readiness for the formation of ecological culture in schoolchildren. In general, the following can be noted:

- motivational-value component of attitude to nature is below average;
- insufficient formation of ecological and pedagogical knowledge;
- a small number of means, methods and techniques for the formation of schoolchildren’s ideas about the rational use of natural resources;
- narrow understanding of the term “rational nature management”.

This study showed that we can talk about the problems of the formation of ecological culture among teachers. The majority of students of the Institute of Philology recognize the importance of environmental education, but it is beyond their professional self-awareness. Ecology is not given due attention in the class, as evidenced by the insufficient depth of knowledge in the study area among 63% of students. 53% of philology students have little idea of what rational nature management is and find it difficult to name natural resources.

3 Results
In elementary school, knowledge about the norms of behavior in nature is laid, the beauty of the world of flora and fauna is shown, love for the native land is brought up, respect for all living things.

At the senior level, the didactic potential of educational texts involves teaching the moral and legal principles of nature management, fostering a sense of responsibility for the ecological future of the world around.

Let us consider the content of the tasks of the textbook "Russian Language" for grade 6 (part I) by M.T. Baranova, T.A. Ladyzhenskaya, L.A. Trostentsova et al. (2019) for the presentation of environmental exercises.

In exercise 7, pupils are asked to establish a semantic proportion and correlate words that name generic concepts (herd, flock, flock, herd) and species (geese, sheep, cows, horses) as representatives of the class.

Pupils learn about the diversity of color in the world around them. They are invited to insert the missing spellings in words that convey color, such as turquoise (biryuzovyj), lilac (lilovyyj) (Ex. 11), remember the spelling of dictionary words burgundy (bordovyj), crimson (baegryanyj).

To master the morphological norms of nouns, exercises are given in which it is necessary to determine the gender of nouns and compose phrases based on the principle of agreement. As a material for exercise 13, foreign and Russian words are used: avocado, mango, cocoa, coffee, potatoes, beans. The introduction of foreign words also involves the organization of work with lexicographic sources to clarify the meaning of words. In the next exercise (Ex. 14) it is proposed to form the genitive plural form. Among other examples, three are given with the names of fruits: orange, tangerine, tomato.

To practice the pronunciation skills of individual sounds, poetic texts by V. Suslov, A. Kondratiev, S. Marshak are used, in which the sounds of the surrounding nature are transmitted (ex. 27, 29, 32, etc.). Reading texts teaches pupils to hear the rustle of the forest in the silence of nature. Schoolchildren are also invited to find texts that demonstrate the sounds made by other inhabitants of the fauna world, conveying the cuckoo's croaking, the croaking of frogs, the flight of a bumblebee (exercise 28).

The proverbial fund of the Russian people reflects ideas about harvesting: Rye is ripe – get down to business (Rozh(') pospela – beris' za delo); consequences of a non-environmentally friendly attitude to nature: Not so much they will shake pears, as they will break them (Ne stol'ko natryasut grush('), skol'ko nalomayut).

The works of writers and poets convey by means of artistic expression the image of nature after the rain (ex. 113 – A. Yashin; ex. 122, 123 which present materials for an essay based on a reproduction of A.M. Gerasimov’s painting “After the Rain”), the charm of the sunset (exercise 46 – K. Paustovsky), the beauty of the evening dawn and sunlight, which are drawn through the use of epithets, metaphors, comparisons, personifications (exercise 52 – I. Turgenev). Using the example of school work “Autumn has come” (Ex. 121), it is shown how one should not write an essay.

The system of names adopted by the northern Pomeranian peasants contains dialecticism that reflect the relationship between a person and such a natural phenomenon as the wind, which can bring harm and benefit. The names captured the people’s ideas...
about the importance of the environmental factor: an evil enemy — the formidable north brings cold, destroys crops; a good helper — a glorious autumn siverko drives fishing boats returning from fishing in Murman to their native White Sea shores (Ex. 146).

However, most of the texts related to the world of plants and animals, given in the textbook, serve an aesthetic purpose — to educate the sense of beauty, to develop an aesthetic taste.

The exercises of the textbook introduce schoolchildren to representatives of birds living in Russia: the singing little bird (exercise 73 – V. Poltoratsky), woodcocks (exercise 78 – I. Turgenev), cranes (exercise 157 – S. Kirsanov), they tell how to distinguish the male sparrow from the female by plumage (exercise 80 – G. Skrebitsky). Interestingly, spelling dictionaries allow 2 options for writing words in Russian: vorobushek and vorobyshek.

Pupils are invited to study independently the material about animals that have camouflage properties and continue the story using a picture of an animal (Ex. 93).

The beneficial properties of fireweed are described in exercise 77. Since ancient times, people have used this plant as willow-herb. The author of the text, K. Paustovsky, describes the role of fireweed in creating an ecological environment around itself, which warms the surrounding green neighbors with its warmth: weak shoots, young pines, until deep snow covers them. Thus, the important ecological function of a herbaceous plant is emphasized — a watchman, a protector, a nanny, a selfless flower. The inclusion of this text in the materials of the textbook teaches to understand the value of a viable plant and to take care of this important element of the ecosystem.

The rules of behavior in the forest and the mutual assistance of the inhabitants of the fauna are discussed in exercise 96, the behavior of prankster boys who picked up a defenseless baby bird when its mother could not find a place nearby and squeaked loudly is condemned. Even animals feel the request for help and respond, so the dog barked at the boys and made them leave the baby bird alone.

4 Discussion

At the same time, there is exercise 66 in the textbook, the content of which causes conflicting feelings. Let us give it here.

A fire

A pile of dry leaves is getting stronger, more cheerfully flaring up, and it crackles and the fire burns.

The flame burns in the face, warm smoke flutters in the wind, tightened the entire forest slope.

The forest hums on the mountain, branched birches bend low, a shadow sways between the trunks.

Glitter, the noise of foliage fills the golden forests this sunny windy day. (I. Bunin)

On the one hand, a fire, as a source of warmth and illumination, becomes an object of reverence and artistic description. Thanks to the use of epithets branchy birches, golden forests, a forest slope, a sunny day create an image of a fine day, on one of which the author admires the fire flame and the forest landscape in the autumn forest. On the other hand, the fire is a source of increased danger, which can lead to devastating consequences, which, in our opinion, conceal the words: a windy day, the fire flares up more strongly, burns, blazes in the face, the smoke flutters in the wind, tightened the entire hillside. Fires...
in natural ecosystems are detrimental to all living things and it takes a long time to restore the system – trees die, insects and birds lose their nesting sites. Thus, on the basis of the analyzed exercises, it can be concluded that most of the exercises given in the textbook are full of aesthetics – even such a source of increased danger as a fire, which can lead to devastating consequences.

The text of exercise 59 by L. Leonov is devoted to environmental education, which contains parting words to the younger generation to take care of natural gifts, to use forest resources wisely, thinking about the future. As a continuation of the theme, exercise 61 has a dialogue with a young reader about how many trees he/she planted this year and what he/she did to protect green spaces.

Despite the prevailing number of texts containing descriptions of the beauties of nature, the textbook for grade 6 contains limited exercises in which norms of behavior in nature are described.

5 Conclusion

Instead of considering themselves above nature or the master of nature, people should be together with nature, believe that nature has its own values, protect them, treat it with love and respect [15]. Unity with nature is possible only when a person accepts its value and realizes that nature is a living organism of our planet.

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