UDC 372 **DOI https://doi.org/10.24195/2617-6688-2024-1-4**

Seyıdova Elnara
PhD in Pedagogy (Candidate of Pedagogical Sciences),
Head of Geography Department
Nakhchivan State University, Azerbaijan
E-mail: eli.seyid.77@gmail.com
ORCID ID: https://orcid.org/0009-0001-0486-2324

The methodology of environmental protection organization at the geography lessons

The main purpose of the article is to study the pedagogy methods at the geography lessons. Thus, the educator might use a variety of techniques to oversee the students' creative activities in the context of organizing environmental education and nature conservation projects. By carrying out their efficient organization in Geography classes and extracurricular activities, the roles of the instructor, the student, and the instructional duties should be accurately specified. One of the most important requirements for educating students about environmental preservation is selecting teaching strategies based on the information sources and cognitive activity of the class. For this reason, the article examined how to organize nature protection within the Geography teaching process and described many training approaches.

The research also demonstrates how to use contemporary learning technologies to help students create environmental protection actions. The methods of their implementation as well as the subject matter of the practical work are examined. Some instances of how new pedagogical tools are being used to teach geography are given in the study.

A variety of forms and methods of work, their skillful alternation in the classroom and outside of school hours allow children to instill a careful attitude to nature, to form an ecological consciousness, culture within the framework of environmental education and its components-environmental education.

Ecological culture should be considered a part of pedagogical culture, and therefore it considers the maximum possible use of general pedagogical methods of education.

Keywords: *pedagogy, training technology, environmental protection, practical work, geographical training, methodology.*

Introduction. Orientation of students to environmental protection in geography lessons, as well as in geography extracurricular activities, cannot be considered possible without applying the latest teaching methods. In this field, each subject teacher has their own methodology, as well as the methods recommended by scientific pedagogy and didactics. Based on this, we can say that geography teachers in grades VI–IX should be able to use those methods as necessary. “Method” (a Greek word meaning a path leading to something) means methods and means for achieving a goal in any field of activity. As for teaching methods, in the process of teaching geography, maps and other cartographic tools, visual aids, as well as methods used to instill in the student a system of knowledge, skills and abilities corresponding to the text of the textbook. Thus, methods consist of techniques.

Analysis and discussion. Research work serves to focus environmental knowledge on skills and habits through new methods and knowledge, educational strategies. In the article, we try to understand the essence of environmental education in geography lessons, to determine the system of work on nature protection in teaching certain subjects through experiments with collecting facts in the relevant literature and conducting practical research, as well as appropriate verification methods. In order to improve or change the quality of modern environmental education in secondary schools, we have studied a number of topics on the methodology of organizing environmental protection in geography lessons, with reference to the research of a number of scientists and teachers. Because, understanding the value of studying environmental knowledge, strengthening our knowledge of living and inanimate nature through an objective view of these aspects, we strive to gain a more correct understanding of the biotic and abiotic factors shaping the environment on a scientific basis.

Environmental education and environmental culture, understanding both human interaction with the environment and the skills necessary for it, and helping it evaluate these skills as a relationship with the natural environment.

In this regard, extracurricular activities in geography in research work are more optimal. Extracurricular activities not only help to accurately follow the correct problem solving methodology, but also help to achieve more effective results in environmental protection. Timely environmental education also provides great assistance in making the right decisions on such issues by conducting an environmental assessment of the environment.

Literature review. The literature used in the article is significant enough to coordinate the educational process and environmental issues. Of these (Rodzevich, 2009) at geography lessons in secondary schools, very important points for exploring the possibilities and ways of environmental education attract attention. To characterize the available opportunities and ways of environmental education in teaching the subject, several literature has been used as a textbook and textbook, such as "methods of teaching geography" (N. Seifullayeva. Methods of teaching geography). The application of the problem in the educational process, ways to solve it using active teaching methods based on curriculum reforms are covered in more detail in the literature, given in accordance with the requirements of modern educational reforms (M. Verdieva. Methods of teaching geography). In addition, the pedagogical and psychological foundations of the problem are described in detail in the literature. The analysis of a number of topics contained in school textbooks helps to more accurately assess the possibilities of forming students' environmental activities (E. Alizade, N. Seifullayeva, I. Aktoprak, Y. Shabanova. Geography textbook for the 9th grade of secondary schools). In general, the literature allows you to choose the right methodology and conduct a comparative analysis of the problem.

The main part and method. The article is based on the works of Azerbaijani and foreign research scientists on Geography and methods of teaching Geography, textbooks for secondary schools, methodological guidelines for teacher training, Internet resources and etc.

In the process of learning Geography, we can group teaching methods as follows:

– The passive method;

– Active method;

– Interactive method.

Passive and active methods are based on more traditional methods, whereas interactive methods are applicable to modern teaching methods. But in both active and interactive methods, the teacher must direct the class to the lesson, creating a problematic situation, ensuring free access of students to new knowledge.

The methodology shows that students can assimilate new knowledge in several ways. Basically, it is the transfer of new knowledge to students in a ready-made form and the assimilation of knowledge by students using interactive methods. Based on this goal, didactics divide educational modules into two subgroups that help in acquiring new knowledge:

a) informative-oriented;

b) the methodlar heuristic (Alizadeh, 2013: 51–52).

The use of these methods depends on the teacher's pedagogical skills and the scope of the topic being taught. Because in interactive teaching methods, the teacher, giving preference to informative, directed teaching methods, must also convey to students the knowledge gained from additional literature that meets the requirements of program materials. Learning from sources of knowledge when using methods, the teacher explains a certain part of the information about the phenomenon, process and environmental change through questions aimed at research. Thus, the teacher allows information about nature protection to be "discovered" by the students themselves. For all this, the teacher can use oral comments, interviews, lectures and practical methods that are considered more effective methods of shaping environmental activities (Geography-9, 2016: 116–126).

One of the advantages of the practical method is that it directs the entire class to the lesson, conducting it with the participation of the student. Using this method, it is possible not only to develop students' creative thinking, but also to identify sources of knowledge.

It is more expedient to carry out practical work according to the following plan.

Table 1

The content of the practical work, stages of work organization and visual aids

The content of the practical work	stages of work organization and visual aids
1. Purpose and objectives of the work 2. Direction of implementation of work a. Plan b. The main content of the work c. Stages of implementation of work, etc.	1. Study of degraded natural landscapes. 2. Study of anthropogenic impacts that upset the ecological balance. 3. A map of the area, space images, the necessary equipment for determining environmental indicators in natural components, and much more.

As can be seen, the main content of practical work and the source of knowledge are geographical phenomena and processes. The method is implemented as a result of the joint activity of the teacher and

students. Practical work has such types as instructional, coaching, final, etc., with reflection in the school curriculum (Garibov, 2018: 35–36).

During the lesson, the teacher also ensures better assimilation of topics by activating the class with various questions. When choosing questions, the tasks set before the lesson are put first. Sometimes the purpose of the questions is to test students' knowledge in the field of environmental education. Then the teacher helps the students to come to an independent conclusion on this topic, analyzing the new topic, asking auxiliary questions. We can give examples of this:

Teacher – do natural waters purify themselves?

Student – yes, although they differ in the duration of purification, water purifies itself naturally.

Teacher – how is our country provided with water resources?

Student – Azerbaijan is one of the low-income territories in the South Caucasus region, which varies depending on the physical and geographical areas.

Teacher – what is the ecological state of the Kura and Araz rivers?

Student – both rivers are transit rivers and are mainly subject to pollution from neighboring states, etc.

This type of question, which encourages students to think independently, is called the heuristic method. The heuristic method requires high pedagogical skills from the teacher and is more effective if it is conducted by the interview method.

The combined use of lecture and visual methods on topics related to ecology and environmental protection is more effective. The lecture, consisting of a teacher's speech and used mainly for high school students, develops students' thinking and logical thinking at high speed. Visual methods are implemented using maps, graphs, tables, layouts, display tools, diagrams, graphs (Seyfullayeva, 2011: 186).

With the help of visual aids, you can teach environmental problems and environmental measures in more detail. In recent years, the improvement of visual aids has become one of the main problems. The main place among them is occupied by natural visual aids.Natural visual aids include objects taken from the environment. These include various rocks, minerals, mineral raw materials, semi-finished products, and finished products. The place and role of local history materials in this area should be determined with a constant focus on topics related to subject programs and textbooks of Geography (Fig.).

The role of visual aids in obtaining geographical knowledge is invaluable.Experienced teachers effectively use visual aids to explain new knowledge.The use of funds in school practice is carried out in two directions:

1) Description of events in statistics (figure, graph, table, diagram, etc.) demonstration;

2) the dynamics of events (films, etc.) demonstration.The first is called an illustrative method, and the second is a demonstration method (Alizadeh, 2013: 54).

The teacher is working on integrating illustration and demonstration methods with the research method in order to use diagrams, images, graphs, tables related to the atmosphere, biosphere, hydrosphere and lithosphere, typical for teaching geography, in the process of teaching each topic, as well as to present synchronous tapes and video images related to these topics to the class.

In the modern educational reform, the term “new technology” has entered the scientific and pedagogical environment. Technical means of education are widely used in a number of developed countries and have already been integrated into our education system. Some educators view this as pedagogical technology, viewing the technological revolution as teaching in school.

The main characteristics of pedagogical technologies are conceptuality, consistency, manageability, reproducibility and efficiency.

Teachers divide technologies into three groups: explanatory, personality-oriented, and developmental.

It is explanatory technologies that are the most frequently used technology of visual learning in geography, since geographical knowledge plays an important role in the formation of skills and habits.

Let's look at some of the modern learning technologies. In the development of geographical knowledge, the formation of general educational skills, the development of logical, critical, creative thinking, the technology of problem-based learning in the formation of students as a person in the future is of particular importance. It cannot be attributed to new technologies in general.

Problematic issues, tasks and tasks in the formation of environmental protection activities help to identify the answers to the tasks with the available knowledge and methods of activity. Here, the main task of the teacher is to create a problematic situation. Thus, the teacher must ensure that students can apply the knowledge they have gained, finding answers to any questions and questions with the help of existing knowledge. The main goal at this time is to prove the correctness of the hypothesis. To do this, it may be useful to use a causal relationship. For example, in a Class X geography course, prove why the Caspian Sea, the largest lake in the world, is also the most polluted body of water in the world (Garibov, 2017: 114).

Table 2

A brief analysis of the environmental problems of the Caspian Sea

Cause	Result
The Caspian Sea is of great importance for coastal States	A large amount of industrial and household waste is thrown out in the Caspian Sea
The Caspian Sea has rich oil and gas reserves	The Caspian Sea is one of the most polluted reservoirs with petroleum products, its fauna and flora are under threat of extinction.
The economy in the Caspian Sea and on its shores is developing rapidly	Economic development leads to serious environmental problems

New facts with existing knowledge help to clarify the problematic situation of students, and the emergence of a cause-and-effect relationship creates the basis for understanding environmental problems.They apply the same method in BIBO technology, turning them from a passive listener into an active participant, taking into account the needs of students, new materials are studied with the joint participation of a student and a teacher.

It is more useful to apply the 'Venn diagram' to topics that require comparative characterization.This method, dedicated to identifying similarities and differences in topics, engages students in alternative thinking that requires a more thorough discussion of the question posed to them (Seyfullayeva, 2011: 221).

In addition, with the help of such educational technologies as "brainstorming technology", "discourse", "role-playing games" and so on, it is possible to instill in students a careful attitude to nature. The main criterion for the effectiveness of work on the formation of ecological culture is the unity of their ecological consciousness and behavior among schoolchildren (Galay, 1998). A systematic approach to pedagogical technologies in this area provides for the interaction of technical and human resources aimed at creating a learning and learning process, optimizing the teaching methods defined for its application.

A careful attitude to nature should be developed in children when teaching geography, biology, knowledge of life and other disciplines, starting with family, preschool institutions, expanding in the lower grades and further at the educational level, turning into a system of continuing education "nature protection".

It is known that about each of the natural components – soil, plants, animals, water, air, minerals, etc. – students receive certain initial environmental knowledge in the lower grades. In high school, speaking about the interaction and impact of these natural components, about the bitter consequences of a violation of the natural balance, about the protection of natural resources and their rational use, about changes in nature in connection with human economic activity, students' attention should be directed to emerging and possible environmental problems.

In the conversations that we have about the rational use of natural resources in nature protection, human relations with nature, environmental problems, the natural beauties of our Homeland, landscape monuments, the development of natural resources, we must strive to ensure that every student as a citizen has a conscious attitude to nature, concern for its preservation and development, or rather, the ecological culture in them.

However, there are nuances in geography textbooks that activate students, such as "application and verification of knowledge", "work on text and Picture", "after the lesson", "generalizing tasks". But the absence of such guiding methodological guidelines as "practical work", "practical instructions", although it does not prevent the solution of the question posed, it also does not provide methodological assistance (Alizadeh, 2016). Therefore, along with practical adjustments, methodological guidelines corresponding to these adjustments should be developed for the teacher.

Conclusion. The content of the geography course and the process of its development realize the most important aspect of the global goals of education. The level of teaching of geographical education determines the culture of human behavior in geographical space, which is an integral part of mass ecological culture. An experienced geography teacher should, with special pedagogical skill, not only form an imaginative general geographical picture of the world in the minds of students, but also teach them to take care of natural components and natural resources, following the norms of behavior established by society in the natural environment. The article examined how to organize nature protection within the Geography teaching process and described many training approaches.

The creative work of students is great educational importance. Environmental posters, drawings, newspapers, thematic projects, essays on environmental topics make children reflect, think, analyze

environmental knowledge, compare various sources. All of these tools are used under my cordination at the lesson, either.

Such pedagogical methods are also very productive for participation in environmental activities (ecology, geography), school and district Olympiads, environmental competitions, helping them to treat issues of rational use of natural resources more correctly.

The following forms, methods and means of organizing environmental education which I also use during my teaching process at the university are distinguished:

1. Classes in the traditional form include introductory classes, thematic classes, lecture classes, talks, etc. to teach.

2. Organize special classes (independent work of students, methods of educational discussions, story-role-playing games, etc.).

3. Apply research methods, practices, solutions to environmental problems in extracurricular and extracurricular activities.

4. Organize koraf evenings, quizzes, lectures on environmental issues, watch movies, listen to stories.

5. Organization of various types of excursions.

A variety of forms and methods of work, their skillful alternation in the classroom and outside of school hours allow children to instill a careful attitude to nature, to form an ecological consciousness, culture within the framework of environmental education and its components-environmental education.

Ecological culture should be considered a part of pedagogical culture, and therefore it considers the maximum possible use of general pedagogical methods of education.

Сейдова Ельнара
кандидат педагогічних наук,
завідувач кафедри географії
Нахічеванського державного університету, Азербайджан

Основною метою статті є вивчення методики педагогіки на уроках географії. Таким чином, педагог може використовувати різноманітні прийоми для спостереження за творчою діяльністю учнів у контексті організації екологічних освітніх і природоохоронних проектів. Здійснюючи їх ефективну організацію на уроках географії та в позакласній роботі, варто чітко визначити ролі вчителя, учня й обов'язки викладача. Однією з найважливіших вимог до природоохоронного виховання учнів є вибір стратегії навчання з урахуванням джерел інформації та пізнавальної діяльності класу. Тому в статті розглянуто, як організувати охорону природи в процесі навчання географії, й описано багато навчальних підходів.

Продемонстровано, як використовувати сучасні технології навчання, щоб допомогти учням створювати екологічні дії. Розглядається методика їх виконання, а також тематика практичної роботи. У дослідженні наведено деякі приклади використання нових педагогічних засобів для навчання географії.

Різноманітність форм і методів роботи, уміле їх чергування на уроках і в позаурочний час дають змогу виховувати в дітей бережливе ставлення до природи, формувати екологічну свідомість, культуру в рамках екологічного виховання та його складника – екологічного виховання.

Екологічну культуру варто вважати частиною педагогічної культури, тому вона передбачає максимально можливе використання загальнопедагогічних методів виховання.

Ключові слова: *педагогіка, технологія навчання, охорона навколишнього середовища, практикум, географічне навчання, методологія.*

References

Abbasov, A.N., Alizadeh, H.A. (2000). *Pedagogy (textbook),* Baku, Renaissance, 202 p.

Alizade, N., Seyfullayeva, N., Aktoprak, I, Shebanova, Y. (2016). *Textbook on geography for the 9th grade of secondary schools*, Baku. 203 p.

Alizadeh, E. Seyfullayeva, N., Shebanova, Y, Rakcheyeva, I. (2013). *Geography/* Textbook on geography for the 6th grade of secondary schools, Baku.

Ermolovich, M. (2021). Methods of teaching geographical and environmental disciplines. The workshop. Minsk, BSU, 69 p.

Garibov, Y, Alkhasov, O., Hüseyinli, Sh., Babayeva, M. (2017). *Textbook on geography for the 10th grade of secondary schools*, Baku. 207 p.

Garibov, Y., Seyfullayeva, N., Humbatova, Sh., Shebanova, Y. (2018). *Methodological Manual of the textbook on geography for Grade 7th grade of secondary schools*. Baku. 144 p.

Galay Ivan Petrovich. (1998). Textbook for "the course methodology of teaching geographical disciplines." BSU, 81 p.

Rodzevich, N.N. (2009). *Geography and ecological culture*. Geography at school, No. 4.

Seyfullayueva, N.S. (2011). *Methods of teaching geography*. Textbook for high schools. EMK publishing house. Baku, 493 p.

Verdiyeva, M. (2022). Methods of teaching geography. Textbook for higher pedagogical schools. Baku. 367 p.

Accepted: March 15, 2024