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**METHODOLOGY FOR DEVELOPING PUPILS' INDEPENDENT  
THINKING IN TEACHING GEOGRAPHY**

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**ABSTRACT**

The article discusses about the methodology that should be used in teaching geography to develop pupils' independent thinking and the results of the survey conducted among geography teachers and pupils of the school.

**Keywords:** geography, methodology, method, exercise, creativity, pedagogical technology, efficiency, competence, modern school, innovation

**Introduction**

In our country, the introduction of educational standards based on the participation of competencies, National study guidelines, is putting significant tasks on the teachers of general secondary education schools. In order to fulfill these tasks, it is necessary to educate pupils to be educated persons who can quickly and realistically evaluate the events happening around us, including those who can accept the correct solution to any problem. The reason is that the main purpose of the national educational standard is to establish the general secondary education system based on the socio-economic reforms being implemented in the country, the previous experiences of developed foreign countries, science and modern information and communication technologies, moral perfection and it is determined that it consists in educating a mentally developed personality [1]. In the implementation of these tasks, pupils are not provided with reading materials but are directed to acquire the knowledge themselves, to be able to retain the acquired theoretical knowledge in the pupil's life, including we need to pay more attention to assignments to form creative and critical skills, to monitor their performance. The reason is that on the basis of the Decree of the President of the Republic of Uzbekistan No. PF-6108 of November 6, 2020 "On measures to develop the fields of education and science in the new period of development of Uzbekistan", the order of the Ministry of Public Education of the Republic of Uzbekistan No. 298 of December 9, 2020, the National Study Guideline for general secondary education subjects was developed, and today it is planned to introduce it step by step. The content of the National Study Guide consists of 50% theory and 50% practice, which supports the pupil's independent thinking. In the current direction, 90% consists of theory, and the teaching methodology is focused on memorization. So, if the pupil receives only material information, or if he/she listens,

sees, and memorizes, such knowledge will be superficial, therefore, schools that only provide theoretical knowledge and memorization will be replaced by schools that develop creative work ability. We need to turn the old schools into modern schools. Including, on the basis of the National Study Guideline, not only the amount of incomplete knowledge is determined, but the skills formed by the pupils are evaluated. In the creation of modern schools, school teachers are required to have pedagogical skills, deep scientific preparation, pedagogical literacy, and communicative competences. With the help of such a system, conditions will be created for us to develop the creative thinking of the pupils and to form their talent for solving problems [3]. Therefore, it is necessary for our teachers to be aware of the changes taking place in the field of education and to understand them correctly. The reason is that most of the time it is not easy for teachers to receive incoming news. In the course "Natural Geography of Continents and Oceans" (grade 6) in general secondary schools, pupils are taught geographic maps, geographic crust and its development laws, structure, properties, geographical crust components (lithosphere, hydrosphere, atmosphere) and each continent, oceans are given knowledge related to close to them [2]. It is necessary for the pupils to deeply understand the covered knowledge while studying this course, to be able to reveal the meaning and significance of the topic given in the textbook, and to be able to correctly analyze maps, atlases, pictures and drawings in order to expand their knowledge. As stated in the national educational standard, geography is one of the subjects of general education, and the main goal of teaching geography is to build pupils' confidence and general competences related to the subject. Based on the content of nature and geography subject, pupils should develop the following competencies related to the subject:

Competence to control, identify, understand and explain natural, socio-economic processes and events;

Competence to correctly use geographic objects, place names;

Competence to use globes, geographical atlas and maps in practice;

Competence of ecological culture and nature protection;

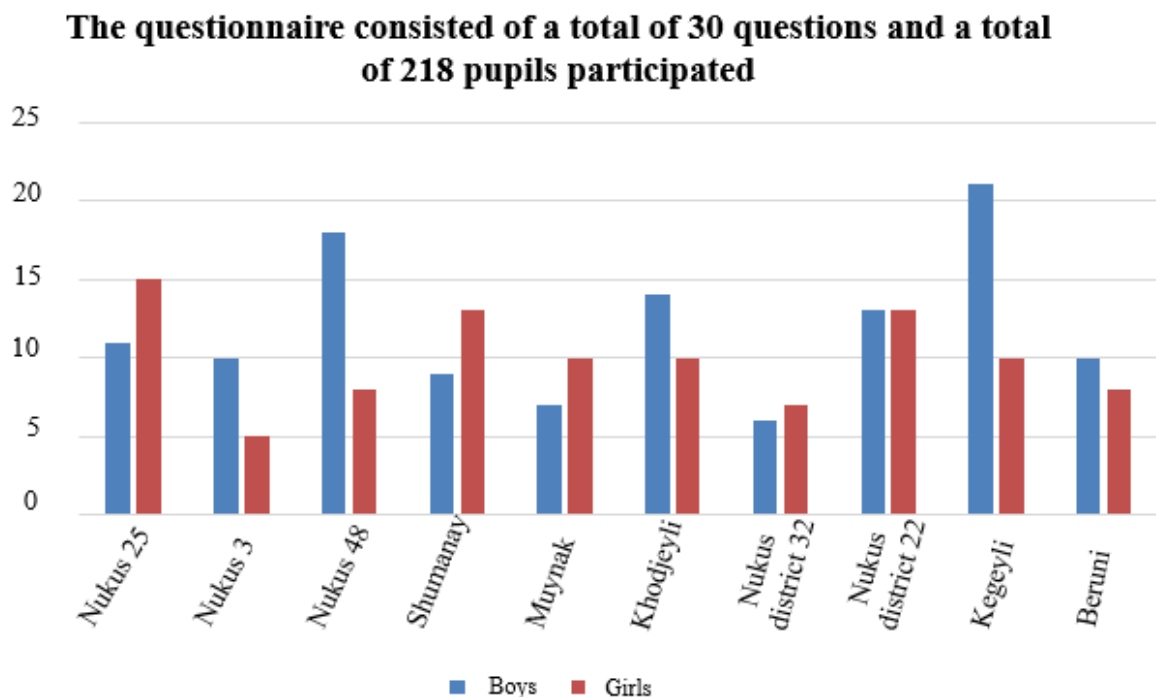
The elements of competences related to this subject must be formed in the course of mastering the subject of geography at the level of the national standard. Therefore, at the same time, teachers of general secondary education schools are required to work more on themselves and follow up. It is necessary to get methodical support from experienced, trained teachers, to improve their skills by gaining experience among themselves. Including, it is the task of every teacher to teach pupils to learn science independently, i.e., to make sure it possible for him to do so that the pupil learns by his own efforts, overcomes difficulties and wins, is confident in his knowledge, and in himself. By gaining the role of the pupils in their own learning, we are forming competences related to the science. However, for some teachers, adapting to change will not be easy. The reason is that during such times, a healthy competition environment appears among teachers. The increase in responsibility and demands means that the teachers are also more focused on themselves and prepare tasks that

generate different ideas. Pupils should directly participate in acquiring new knowledge required by the national educational standard and perform the assigned tasks on their own. In geography lessons, pupils should not be learned to read maps, but rather, they should be able to remember geographical terms in terms of geographical objects and places.

## MATERIALS AND METHODS

In order to determine the conditions and problems of the natural geography of continents and oceans in the 6<sup>th</sup> grade in general secondary schools, questionnaires were conducted among pupils and geography teachers in the schools of the Public Education Department in the Republic of Karakalpakstan. By analyzing them, it was determined what should be paid more attention to when conducting scientific research. According to the analysis of the questionnaire conducted among the teachers, it was determined that there are some problems in teaching this course. According to the geography teachers, the textbooks for 6<sup>th</sup> grade pupils are too less to give the pupils the materials. In revealing the contents of the subjects, it was highlighted that there are few study methodical manuals related to the subject, providing information that is not given in the textbook and which can be added by the teacher. Therefore, the results of the questionnaires revealed that the competencies formed in the pupils during the lesson process are not fully reflected.

The 6<sup>th</sup> grade pupils of general secondary education schools in the Republic of Karakalpakstan were taken as an experiment (Fig. 1).



**Fig. 1.** Territorial share of pupils who participated in the questionnaire

In the conducted questionnaires, analyzed based on the questionnaires related to the competence of being able to use geographical atlases and maps in practice, and the competence of correct spelling of geographical objects and place terms, which must be occupied by pupils in the natural geography of continents and oceans. The conducted questionnaires were analyzed based on the questionnaires related to the competence of being able to use geographical atlases and maps in practice, and the competence of correct spelling of geographical objects and place terms, which must be occupied by pupils in the Natural geography of continents and oceans. In our opinion, a person who does not know the location of geographical terms and objects on the earth cannot receive information about them in a conscious way. According to the national educational standards, pupils who have completed the elementary course of natural geography in the 5th grade can correctly identify the terms of the continent, ocean, the largest sea, the Gulf, islands and peninsulas, the highest mountains and large plains on Earth, rivers and lakes. It is necessary to form the competencies to be able to read, to retrieve them from globes and maps. Based on this, we asked the following key questions (Table 1):

**Table 1.** Percentage of correct answers to questions in the questionnaire

Nº	Questions	The number of boys is -119. Answered correctly (%)	The number of girls is 99. Answered correctly (%)	Total number of pupils - 218 Answered correctly (%)
1	What is the total surface area of the entire globe?	68.1%	63.6%	66%
2	What is the total surface area of the world's oceans?	63%	49%	56.8%
3	The highest point on earth?	47.8%	44.4%	46%
4	The deepest lakes on earth?	49.5%	48.4%	49%
5	The largest island on earth by area?	66.3%	47.4%	57.7%
6	The largest lakes on earth?	58.8%	60.6%	59.6%
7	The largest sea on earth by area?	82.3%	86.8%	84.4%
8	Which continents separated from Gondwana?	21 %	14.1%	17.8%

As can be seen from the results of the analysis, pupils did not get 100% correct answers to any question. This information is introduced to the pupils in the 4<sup>th</sup> grade from the subject of Natural Science. To a certain extent, teachers also have an influence on the inability to fully absorb this information in the course of the lesson. The reason is that it is their duty to fully explain to the pupils the basic information necessary for their life, to meet the requirements of the national educational standard.

Based on the national educational standard, pupils in the 6<sup>th</sup> grade can determine the actual distances according to the scale of the map, can use globes and geographical maps to determine the coasts of continents, ocean, the largest sea, the Gulf, islands and peninsulas, the highest mountains and large plains on Earth, rivers and lakes and can use atlases, geographical maps in practice. In studying the course of the Natural

geography of continents and oceans, it is necessary to use more cartographic pamphlets than in the elementary course of Natural geography in the 5<sup>th</sup> grade. For this, pupils can provide information on any place by various maps (natural and political maps of continents, relief, climate, etc.), and it is necessary to work with atlases and contour maps to measure the coordinates of points, the length and width of continents, or to study the area and geographical location of continents.

In the questionnaire received from the teachers, they explained that the three main problems in teaching this course are the lack of maps, and because most pupils do not have atlases and contour maps, they give more theoretical information instead of approximate assignments. As proof of our words, when we asked pupils for geographic locations on a map, we got the following results (Table 2).

**Table 2.** The percentage of students' answers to the questions about the location of geographic places on the map

No	Questions	The number of boys is -119. Answered correctly (%)	The number of girls is 99. Answered correctly (%)	Total number of pupils - 218 Answered correctly (%)
1	Which continent is located only in the northern and western hemisphere?	41.1%	45.4%	43.1%
2	Which continent is highlighted in the picture below?	30.2%	24.2%	27.5%
3	Arrange the continents in descending order of area	30.2%	40.4%	34.8%
4	Arrange the oceans in order of area	49.5%	47.4%	48.6%
5	On the Earth, the hottest African continent in what ranks by land area?	48.7%	48.4%	48.1%
6	If the area of the Earth is 510 million km <sup>2</sup> , then 149 million km <sup>2</sup> is land area. How many Pacific Oceans can be placed in the water area of the Earth?	51.2%	50.5%	50.9%

It is clear from this that there are still gaps in pupils' ability to use geographic atlases and maps in practice, formation of cartographic knowledge, and this is a big problem for teachers. Among other things, it shows that the requirements of the educational standards of the country are not fully met. The reason for existence begins with the study of the geographical location, area, borders, appearance of the continents, and the surrounding seas and oceans.

In General secondary schools, pupils should fully master the meaning of geographical terms while studying this course. The result of the pupils' answers to the survey of geographical terms competences can be seen in the following list.

**Table 3.** The results of pupils' answers to the questionnaire on the competence of knowing geographical terms

Nº	Questions	Boys-119 Correct answers (%)	Girls-99 Correct answers (%)	Total-218 Correct answers (%)
1	What is the continent?	49.5%	37.3%	34.8 %
2	What is an island?	60.5%	59.5%	60 %
3	What is relief?	49.5 %	40.4%	45.4 %
4	Globe is -	83.1%	67.6 %	73.8 %
5	What does geography teach?	57.1 %	44.4 %	51.3 %
6	What is a lake?	47.4%	48.4%	48.1%
7	What is Scale?	54.6 %	57.5%	55.9 %
8	What is wind?	50.4 %	49.4 %	50 %
9	What is a map?	46.2%	52.5%	49%
10	Lithosphere is -	39,4%	34.3%	37.1%

### Results and Discussion

Through the obtained data, we can see that pupils' ability to remember geographical terms is low. If you look at the percentages covered, we can see that pupils have a higher understanding of globes than other terms. This is due to the fact that pupils have learned about globes in the 4<sup>th</sup> grade in Natural Science, and in the 5<sup>th</sup> grade in the elementary course of Natural Geography, including the fact that in most cases globes are used as a hidden tool as a module of the sub-earth. As a result, pupils have the opportunity to see globes in more public places. Some of the mentioned geographical terms are carefully studied in the 5<sup>th</sup> grade from the elementary course of Natural geography, and in the 6<sup>th</sup> grade, these concepts are expanded. We saw from this that it was necessary to develop some mechanism for pupils to remember geographical terms.

In fact, the importance of maps in geography lessons is very strong. However, it would be a mistake to say that such gaps are only due to the lack of maps or maps without inscriptions. This means that the teacher uses the material information and shows the

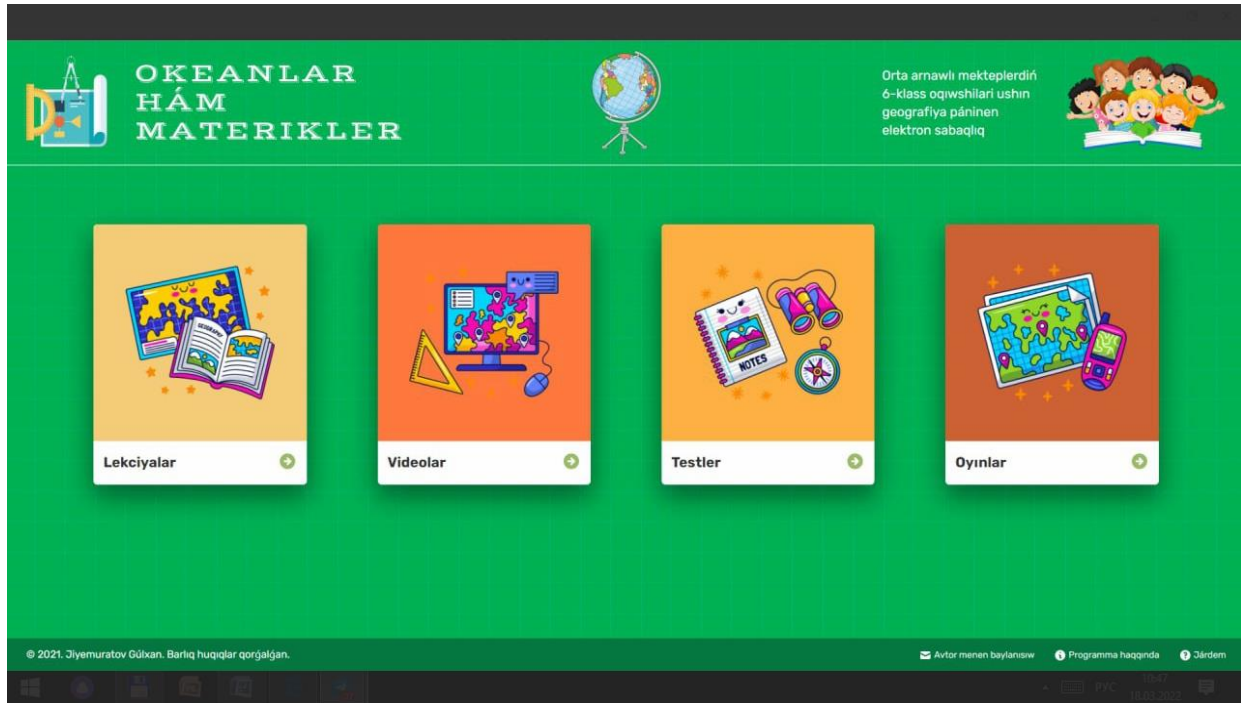


material. A solution to this problem can and must be found if the teacher approaches his task with responsibility. If it is not possible to use exhibition and electronic reports, it is necessary to prepare various reading tasks that develop pupils' creative thinking and look for ways to accommodate them. Even if it is only a few tasks, the pupils will be able to achieve the effectiveness of the knowledge being given to them. During our study, most of the teachers today in the 6<sup>th</sup> grade of the natural geography of continents and oceans in schools are running from pedagogical technologies to programmatic methods, without paying attention to didactic equipment in the lesson. Therefore, we determined the necessity of preparation of methodological manuals necessary for the teacher to organize the lesson interestingly. Based on the requirements of the present time, it is necessary to create an online educational system that evaluates the knowledge of pupils and organizes the activities of studying during lessons and after lessons for the Natural geography of continents and oceans and improves the mechanisms of their use. Because of this, pupils' ability to imagine natural phenomena and develop their creative thinking is the basis of pupils' self-study of geography [4]. By the way, one of the most effective ways to improve the quality of teaching is to use ICT wisely. The use of ICT serves as a pedagogical tool for improving pupils' knowledge. The reason is that the use of e-learning resources in geography classes today increases the pupil's interest in science, and further strengthens his knowledge, skills and talents. Including the ability to remember more basic information while performing various tasks. However, the mechanism of using e-learning resources is not well developed. Especially in the section of schools where education is conducted in the Karakalpak language, the possibility of using such electronic textbooks is at a very low level. Based on their capabilities, teachers are using a small number of electronic educational tools in Uzbek language. In our opinion, the quality of teaching would be increased if the pupils were based on the lessons given in their mother language. Therefore, we considered it necessary to improve the preparation of electronic educational resources in the Karakalpak language in order to increase the effectiveness of teaching geography. The reason is that science is developing at a rapid pace. In our society, where information technology has been widely introduced, the rapid updating of knowledge in all fields of science puts before the pupils the task of acquiring knowledge in one line, continuously and by themselves. Therefore, after the end of our experience, we developed an electronic methodical manual for the natural geography of continents and oceans in the Karakalpak language for general secondary schools. This electronic manual will be a good methodological aid for teachers, and a good trainer for pupils to consolidate their knowledge.

### **Conclusion**

Electronic methodical manual is a form of generalization and transmission of pedagogical experience, creation and distribution of new models of educational activity. In the electronic methodical manual, electronic video forms of pedagogical experiments, tasks created in electronic form are shown in a planned form according

to lessons. The electronic methodical manual we have created consists of a complex of study materials, videos, tests and study assignments (Fig. 2).



**Fig. 2.** Electronic methodological manual

Study materials - pupils can use it for self-study of the Natural geography of continents and oceans. In this section, continents and oceans are enriched with additional exhibitions.

The Videos section contains general multimedia educational materials on continents and oceans.

Developing pupils' creative thinking is the most necessary task of teachers in the section of tasks for independent work. In this section, electronic didactic reading resources are placed for pupils' independent learning, which means a tool for effective organization of the pupil's learning activities.

In the section of tests, there are tests prepared for the purpose of determining the acquired knowledge for pupils. Through this, pupils have the opportunity to self-assess.

This Electronic methodical manual has the following advantages in teaching geography:

- It helps to maintain the relationship between the teacher and the pupil;
- Teachers will have additional methodological support for the geography of continents and oceans;
- Realization of additional opportunities related to arousing the interest of pupils remotely;
- Pupils will be able to evaluate their own knowledge;



In conclusion, the introduction of information technology tools in the process of geography education of general secondary schools' increases pupils' interest in science and develops their imagination.

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