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Developing Students' Cognitive Interest in Studying Physical Geography at School: an Experimental Study

This scientific article examines the problem of developing cognitive interest and increasing subject interest among students in the process of studying physical geography in modern schools. It emphasizes the importance of forming sustainable learning motivation as one of the conditions for improving the quality of geography education and stimulating the cognitive activity of schoolchildren. The results of a pedagogical experiment to identify the effectiveness of using various methodological techniques and forms of organizing educational activities that contribute to the development of students' cognitive interest are presented. During the study, an analysis of the level of cognitive interest of students before and after the experimental work was carried out. The results obtained indicate a positive trend in the indicators of interest and cognitive activity of students. A conclusion is made about the advisability of applying the proposed pedagogical methods and techniques in the practice of teaching physical geography.

Keywords: cognitive interest, cognitive activity, learning motivation, school education, physical geography, pedagogical experiment, active learning, geography teaching methodology.

Introduction

In the context of the updated content of school education, the development of students' cognitive interest and subject interest in the study of academic disciplines, including geography, is of particular importance.

The updated curricula increase student independence. Self-regulation of learning activities increases, as students can plan expected learning outcomes based on criteria. The teacher acts as a coordinator of the learning process. A modern physical geography lesson in a reformed school develops the knowledge, abilities and skills that students need in life and helps them to become independent, responsible individuals with high moral and spiritual values. A necessary condition for this is the development of higher-order thinking skills in students: analysis, synthesis and evaluation [1].

Modern physical geography lessons follow a competency-based approach, which ensures the transition from passive reproductive methods to active learning and the development of critical thinking in schoolchildren. Organizing active cognitive activities and developing interest in the subject through independent learning is one of the main requirements of the educational process. The use of information and communication technologies in lessons maintains students' interest in the subject, stimulates activity and curiosity, cognitive activity, facilitates the presentation of material, and maximizes the visualization of geographical processes and phenomena. The development and formation of sustainable learning motivation is considered one of the most important conditions for improving the quality of geography education and the effectiveness of the educational process [2].

At the same time, in school teaching practice, it is not uncommon to observe a lack of interest among students in studying the subject, including geography, which has a significant impact on the level of their cognitive activity and the quality of their assimilation of the teaching material.

In this regard, the problem of developing cognitive interest and increasing student interest in physical geography lessons is particularly relevant. Furthermore, the search for the most effective pedagogical conditions, modern methods, and forms of organizing educational activities that contribute to the activation of stu-

dents' cognitive activity is an important direction for improving the methodology of teaching geography as a whole.

The main objective of this publication was to present and analyze the results of a pedagogical experiment aimed at increasing students' cognitive interest and engagement in the study of physical geography. In addition, the study made it possible to evaluate the effectiveness of the pedagogical methods and techniques used to stimulate cognitive activity and subject interest among schoolchildren in geography lessons and to draw conclusions.

Materials and methods

The theoretical and methodological basis for writing this scientific article was provided by fundamental works by domestic and foreign scientists on the basics of teaching geography in schools. When developing the methodological support for the pedagogical experiment and selecting teaching methods, the provisions of the classification of teaching methods proposed in the didactics of I.Ya. Lerner and M.N. Skatkin, and specified in relation to school geography by L.M. Pancheshnikova [3, 4] were taken into account. Materials from the I. Altynsarin National Academy of Education and the NIS-Programme education programmes in geography from the Nazarbayev Intellectual Schools JSC were also used.

The scientific research was conducted using a systematic approach. The legal basis was provided by the regulatory documents “On the Approval of State Compulsory Standards for Education at All Levels of Education” (SCES) (Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 604 of 31 October 2018 (as amended and supplemented by No. 372 of 28 August 2020), “On the Approval of Model Curricula for General Education Subjects, Elective Courses and Optional Courses for General Education Organizations” (Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 115 of 3 April 2013 (as amended and supplemented by Order No. 496 of 27 November 2020), “On the approval of the list of textbooks, teaching and methodological complexes, manuals and other additional literature, including on electronic media” (Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 286 dated 10 June 2021); “On amendments and additions to certain orders of the Ministry of Education and Science of the Republic of Kazakhstan” (Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 334 dated 26 July 2019) [5–6]. Regulatory and legal documents were used in conjunction with the basic curriculum for geography at the relevant level of education, the standard curriculum (SC), the working curriculum (WC) of the educational institution, and the subject syllabus.

To solve the tasks set in the study, the following methods of scientific research were used: questionnaire, statistical, descriptive, comparative, cartographic, and others.

The experimental work was carried out over 10 weeks at the Communal State Institution (CSI) “School-Lyceum No. 17” of the Education Department of Balkhash, Karaganda Region. Class 9 “A” was selected for the pedagogical experiment. Before the experiment, the students in the class studied section 1, “Methods of geographical research”. Following this section, a summative assessment was conducted — SAU No. 1. The assessment results were used for analysis as data on the academic performance and quality of knowledge of the students in class 9 “A” before the start of the experiment. Before the experiment, the students of class 9 “A” also studied section 2, “Cartography and Geographic Databases”. Following this section, an assessment for the unit — SAU No. 2 was carried out. The assessment results were used for analysis as data on the academic performance and quality of knowledge of students in class 9 “A” at the start of the experiment. The pedagogical experiment was conducted during the study of sections No. 3 “Physical Geography. Lithosphere” and No. 4 “Physical Geography. Atmosphere” by students in class 9 “A”.

At the end of section No. 3, an assessment for the unit — SAU No. 3 was executed. The assessment results were used by the author for analysis as data on the academic performance and quality of knowledge of students in class 9 “A” during the experiment.

At the end of the first term, a summative assessment for the first term (SAT) was conducted. The assessment results were used for analysis as a data on the academic performance and quality of knowledge of the class during the experiment. Based on the results of section 4, an assessment for the unit — SAU No. 4 was performed. The results of the assessment were used by the authors for analysis as a data on the academic performance and quality of knowledge of students in class 9 “A” at the end of the experiment.

The pedagogical experiment included the following main stages:

- analysis and assessment of the academic performance and quality of knowledge of students in class 9 “A” before the start of the experiment, conducting a survey to identify interest in the subject of geography, and diagnosing students' motivation to learn;

- identification of the reasons for the decline in the quality of knowledge of the class, identification of the number of students who are indifferent to geography, uninterested and extremely uninterested in studying the subject, identification of students with reduced internal cognitive motivation;
- applying teaching methods and tools aimed at improving the quality of students' knowledge, shifting their interest in geography towards positive and actively positive, and developing students' internal cognitive motivation [7].

The lessons were based on the basic model of “challenge – comprehension of content – reflection” and included modern technologies, methods and techniques for teaching geography.

The challenge stage set the pace and tone of the lesson and motivated students by generating active interest and involving each student in the learning process. Techniques used in the challenge stage included true or false, clustering, inserts, prediction trees, thick and thin questions, inventory, tables “I know this, I want to know, I learned in class”, prediction based on illustrations, associations, brainstorming, find the mistake, idea basket, mixed-up chains, keywords, logbook, delayed guess, ripples on water, etc. Teachers and students return to most of the techniques used in this phase of the lesson during the reflection stage [8].

At the content comprehension stage, students received new learning material and worked with it. Group and individual work was carried out. The techniques for developing critical thinking at this stage were ranking, Venn diagrams (simple and complex), logbooks, zigzags, inserts, Bloom's cube, generators and critics, peer teaching, fishbones, argument tables, and others [9].

At the stage of summarizing the results, the content of the training material was reflected upon. The techniques used for this type of reflection included a tag cloud, a table labelled “everything is clear, I don't understand anything, interesting, I want to know more”, a questionnaire, “Three Ms” (three moments, one action), an acrostic, a phrase or proverb, and others [10].

Results and discussion

At the initial and final stages of the pedagogical experiment, a questionnaire was conducted to identify the interest in the subject “Geography” among students of class 9 “A” (Tab. 1).

Twenty-five schoolchildren took part in the experiment. The purpose of the survey was to identify the interest in the subject “Geography” among students of class 9 “A”. The students were given ready-made questionnaire forms. The questionnaire was confidential, and conditions were created for maximum sincerity on the part of the students. To interpret the results, the scores were calculated as follows. The maximum score was 16 points, and the minimum was 0 points.

If a student scores:

- 14–16 points, this indicates their active positive interest in the subject of geography;
- 10–13 points, this indicates a positive interest;
- 9-8 points, this indicates an indifferent attitude;
- 5–7 points, this indicates a lack of interest;
- 0–4 points, this indicates extreme disinterest [11].

Table 1

Results of a survey to determine the interest in the subject “Geography” of students in class 9 “A” at the beginning and end of the experiment

No.	Type of interest	Number of students at the beginning of the experiment	At the start of the experiment, %	Number of students at the end of the experiment	At the end of the experiment, %
1	Active positive interest	7	28	13	52
2	Positive interest	11	44	9	36
3	Indifferent attitude	5	20	3	12
4	Disinterest	2	8	0	0
5	No interest	0	0	0	0
	Total	25	100	25	100

The change in the structure of interest in the subject “Geography” among students in class 9 “A” at the beginning and end of the experiment is shown in Figure 1.

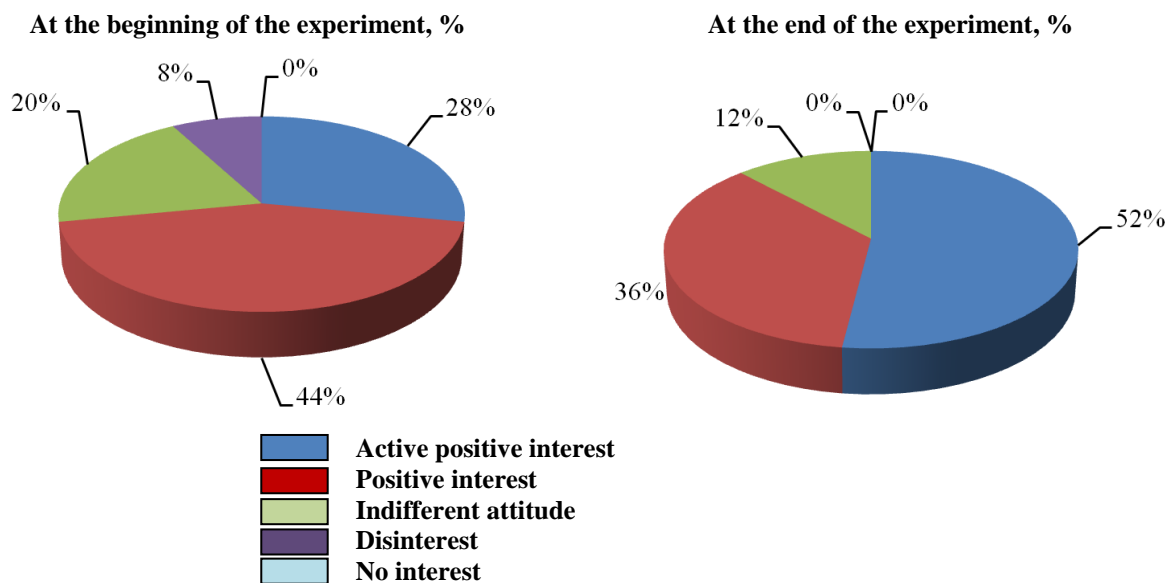


Figure 1. Change in the structure of interest in the subject "Geography" among students in class 9 "A" at the beginning and end of the experiment

According to the results of the questionnaire, at the end of the experiment, 13 students (52 %) in class 9 "A" were actively and positively interested in the subject of geography, 9 students (36 %) were positively interested, and 3 students (12 %) in the class showed an indifferent attitude. There were no students in the class who were uninterested or extremely uninterested.

During the experiment, active positive interest among students increased from 28 % to 52 % (an increase of 24 %). Positive interest decreased from 44 % to 36 % (a decrease of 8 %). Indifference to the subject decreased from 20 % to 12 % (a decrease of 8 %). The students' lack of interest in the subject decreased from 8 % to 0 %. According to the results of the experiment, more than half of the class, namely 52 %, were actively and positively interested in the subject of geography, and the total active and positive interest reached 88 %.

At the end of the experiment, the learning motivation of the students in class 9 "A" was also assessed using the methodology of L.I. Bozhovich and A.K. Markova. When intrinsic cognitive motives are present, students learn more effectively, and teachers should strive to foster such motives. If a student is demotivated, their academic performance declines, they are not active in completing assignments, do not participate in the learning process, are late, attend classes without interest, and their emotional state deteriorates [12].

Learning motivations include:

1) cognitive (intrinsic to the learning process; the student shows interest in the learning activity, enjoys it, and is enthusiastic about the process);

2) social (extrinsic to learning process; interest in learning activities is caused by external factors: attention from parents, respect from peers, liking to be the centre of attention) [13].

The students were given questionnaires with learning motives (I study to: know a lot because I enjoy the learning process, get good grades, learn to be independent, be useful to people, be praised by the teacher for my successes, make my parents happy, and gain the respect of my peers).

The first four motives are considered cognitive (intrinsic), while the rest are social (extrinsic). Students were asked to rank these motives in order of priority and importance from one to eight. To interpret the results, it is necessary to analyze only the first four motives in each student's hierarchy. The optimal combination is considered to be two cognitive and two social motives. If three or four motives of the same type are selected, then that motive is predominant. The predominance of cognitive motives is a strong foundation for academic motivation. The results of the diagnostic assessment at the end of the experiment are presented in Table 2.

Table 2

Types of learning motivation among students in class 9 "A" at the end of the experiment

No.	Code	Gender	Age	Type of academic motivation
1	S1	F	14	Predominance of cognitive motives
2	S2	M	14	Prevalence of social motives
3	S3	M	14	Prevalence of cognitive motives
4	S4	F	14	Prevalence of cognitive motives
5	S5	F	14	Combination of 2 cognitive and 2 social motives
6	S6	M	14	Predominance of cognitive motives
7	S7	F	14	Prevalence of cognitive motives
8	S8	M	14	Prevalence of cognitive motives
9	S9	M	14	Prevalence of cognitive motives
10	S10	F	14	Prevalence of cognitive motives
11	S11	F	14	Combination of 2 cognitive and 2 social motives
12	S12	M	14	Predominance of cognitive motives
13	S13	M	14	Combination of 2 cognitive and 2 social motives
14	S14	F	14	Predominance of cognitive motives
15	S15	F	14	Prevalence of cognitive motives
16	S16	M	14	Prevalence of cognitive motives
17	S17	M	14	Prevalence of cognitive motives
18	S18	M	14	Combination of 2 cognitive and 2 social motives
19	S19	M	14	Predominance of social motives
20	S20	M	14	Combination of 2 cognitive and 2 social motives
21	S21	F	14	Prevalence of cognitive motives
22	S22	F	14	Prevalence of cognitive motives
23	S23	M	14	Prevalence of social motives
24	S24	F	14	Combination of 2 cognitive and 2 social motives
25	S25	F	14	Predominance of cognitive motives

Note. All students in the class are designated by codes S1–S25 to preserve confidentiality

At the end of the experiment, 16 students in class 9 "A" had predominantly cognitive motives, 6 students had a combination of two cognitive and two social motives, and 3 students had predominantly social motives.

The structure of the academic motivation of students in class 9 "A" at the beginning and end of the experiment is shown in Figure 2.

During the experiment, the motives of three students changed from social to cognitive, and one student's motives changed from social to a combination of two cognitive and two social motives. These changes demonstrate an increase in internal learning motivation. Students began to show independent interest in geography lessons and enthusiasm for the process.

After analyzing the questionnaire to identify interest in the subject of geography in class 9 "A" and the questionnaire to determine the type of motivation, it can be concluded that students with predominantly social motives showed indifference and disinterest in the subject of geography, i.e. they had no interest in the process of learning geography. The students were not enthusiastic about the process and did not enjoy attending geography classes. At the end of the experiment, the students' cognitive motivation increased, and 88 % of the students were positively and actively interested in learning geography as a result of the teaching methods and tools used.

To evaluate the knowledge quality and academic performance of Grade 9 "A" students, the following summative assessments were used: SAU No. 1 "Methods of Geographical Research" and SAU No. 2 "Cartography and Geographical Databases", conducted prior to the experiment; SAU No. 3 "Physical Geography.

Lithosphere” and the Term 1 SAT in Geography, administered during the middle of the experiment; and SAU No. 4 “Physical Geography. Atmosphere”, conducted at the conclusion of the experiment [14].

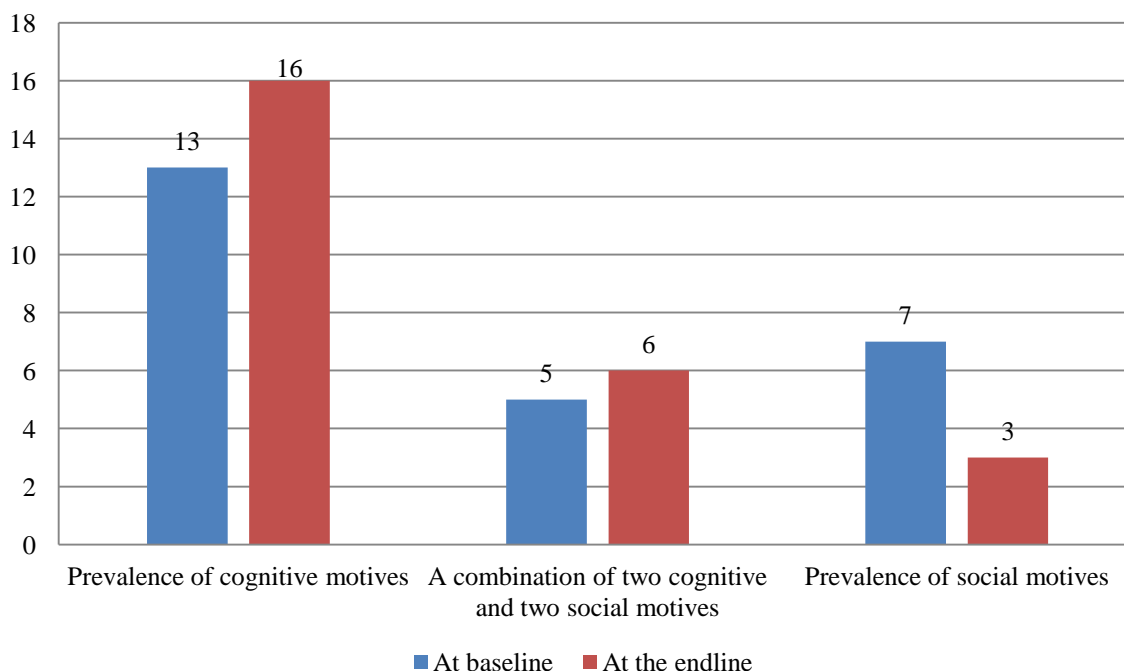


Figure 2. Structure of academic motivation among students in class 9 “A” at the beginning and end of the experiment

Before the experiment began, analysis of SAU No. 1 showed a 100 % pass rate and a knowledge quality score of 56 %. Analysis of SAU No. 2 showed a 100 % pass rate and a knowledge quality score of 52 %. Compared to SAU No. 1, the knowledge quality of SAU No. 2 decreased by 4 %.

According to the authors, this is due to insufficient motivation among students, an indifferent attitude towards geography, and a lack of interest in the subject, which accounted for 28 % at the start of the experiment.

This is also related to the need to apply higher-order skills to solve the tasks of SAU No. 2, which were insufficiently developed in students at the beginning of the experiment. The quality of knowledge at 52 % is taken as the quality of knowledge at the beginning of the experiment.

The results of SAU No. 3 “Physical Geography. Lithosphere” are presented in Table 3.

Table 3

Analysis of the results of the summative assessment for section No. 3 “Physical Geography. Lithosphere”

Class	Number of assessments	Number of students	“5”	“4”	“3”	“2”	Academic performance, %	Quality of knowledge, %
9 “A”	25	25	7	9	9	0	100	64
<i>Note.</i> Compiled by the author								

Seven students received a grade of “5”, nine received a grade of “4”, and nine received a grade of “3”. The pass rate was 100 %, and the quality of knowledge was 64 %. Compared to SAU No. 2, the increase in the quality of knowledge was 12 %.

The results of the SAT for the first term in the subject “Geography” are presented in Table 4.

Table 4

Analysis of the results of the summative assessment for the 1st term in the subject "Geography"

Class	Number of assessments	Number of students	"5"	"4"	"3"	"2"	Academic performance, %	Quality of knowledge, %
9 "A"	25	25	8	9	8	0	100	68

Note. Compiled by the author

Eight students received a grade of "5", nine received a grade of "4", and eight received a grade of "3". The pass rate was 100 %, and the quality of knowledge was 68 %. Compared to SAU No. 3, the increase in the quality of knowledge was 4 %.

The results of SAU No. 4 "Physical Geography. Atmosphere" are presented in Table 5.

Table 5

Analysis of the results of the summative assessment for section No. 4 "Physical Geography. The Atmosphere"

Class	Number of assessments	Number of students	"5"	"4"	"3"	"2"	Academic performance, %	Quality of knowledge, %
9 "A"	25	25	8	10	7	0	100	72

Note. Compiled by the author

Eight students received a grade of "5", ten received a grade of "4", and seven received a grade of "3". The pass rate was 100 %, and the quality of knowledge was 72 %. Compared to the SAT for the first term in the subject "Geography", the increase in the quality of knowledge was 4 %.

The results of the assessments of students in class 9 "A" before the start, at the beginning, in the middle and at the end of the experiment are presented in Figure 3.

Analyzing the number of students who received a grade of "5" in class 9 "A": before the start and at the beginning of the experiment, according to the results of SAU No. 1 and SAU No. 2, the number of such students decreased from 7 to 6; in the middle of the experiment, according to the results of SOT No. 3 and SOT for the first term, the number increased from 7 to 8; at the end of the experiment, according to the results of SOT No. 4, the number of students was 8.

Analyzing the number of students who received a grade of "4" in class 9 "A": before the start and at the beginning of the experiment, according to the results of SAU No. 1 and SAU No. 2, the number of such students was 7; in the middle of the experiment, according to the results of SAU No. 3 and SAT for the first term, the number increased to 9; at the end of the experiment, according to the results of SAU No. 4, the number increased to 10 students.

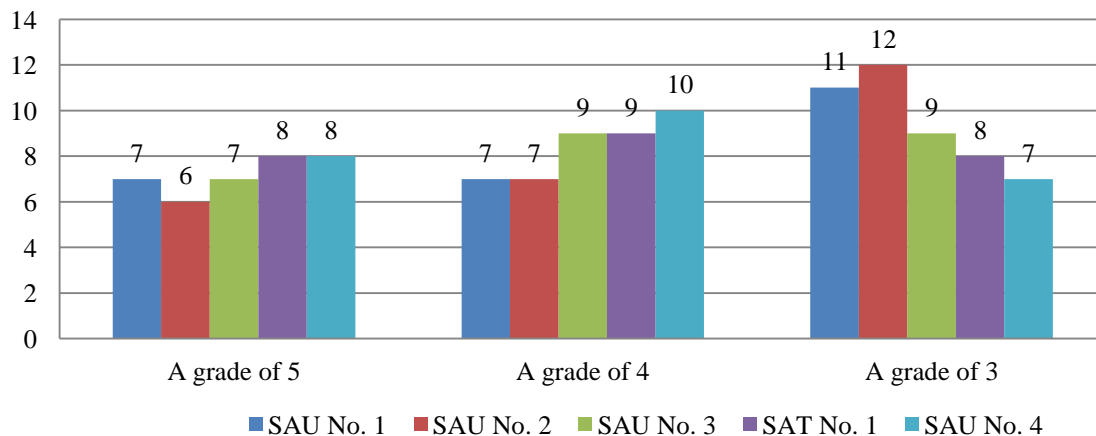


Figure 3. Results of the assessment of students in class 9 "A"

Analyzing the number of students who received a grade of “3” in class 9 “A”: before the start and at the beginning of the experiment, according to the results of SAU No. 1 and SAU No. 2, the number of such students increased from 11 to 12; in the middle of the experiment, according to the results of SAU No. 3 and SAT for the first term, the number decreased from 9 to 8 students; at the end of the experiment, according to the results of SAU No. 4, the number of students decreased to 7.

The academic performance and quality of knowledge of students in class 9 “A” before the start, at the beginning, in the middle and at the end of the experiment are shown in Figure 4.

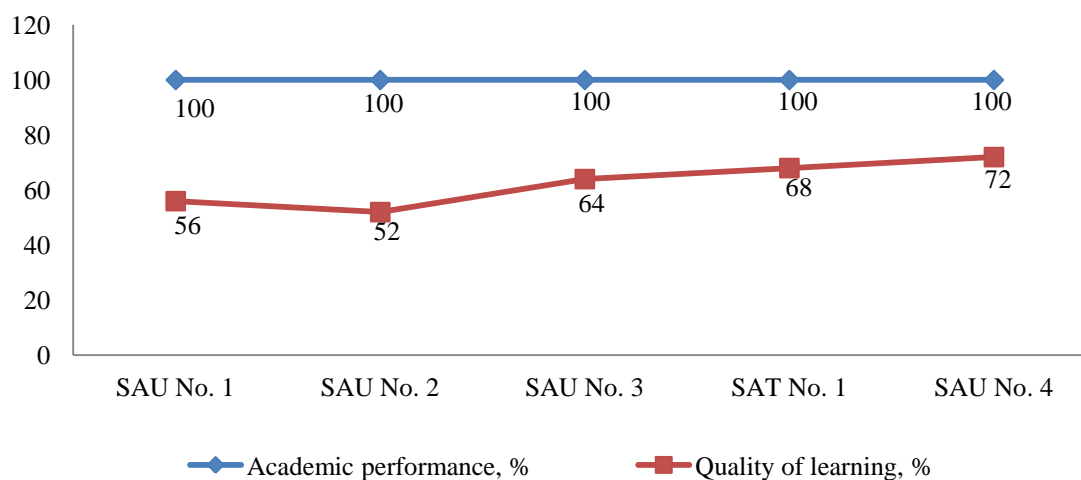


Figure 4. Academic performance and quality of knowledge of students in class 9 “A”

The academic performance in class 9 “A” was 100 %, as the students did not receive any “2” grades in the assessments. The quality of knowledge before the start of the experiment, according to the results of SAU No. 1, was 56 %, and according to the results of SAU No. 2, it decreased to 52 %.

The authors take the quality of knowledge at 52 % as the quality of knowledge at the start of the experiment. In the middle of the experiment, according to the results of SAU No. 3, the quality of knowledge increased by 12 % and amounted to 64 %; according to the results of SAU for the first term, the quality of knowledge increased by 4 % and amounted to 68 %. At the end of the experiment, according to the results of SAU No. 4, the quality of knowledge increased by 4 % and amounted to 72 %. The total increase in the quality of students’ knowledge during the experiment was 20 %.

The pedagogical experiment developed and strengthened the higher-order thinking skills of the students in class 9 “A”, namely: analysis, synthesis, and evaluation. The expected results for each of the skills were achieved.

The students developed such competencies as speaking or speech activity and listening. This was facilitated by tasks for the development of higher-order thinking and active forms of learning.

During the experiment, the students deepened their knowledge, skills, and abilities in working with atlases, outline maps, and cartographic materials (graphs, diagrams). The students learned in detail how to apply analysis, synthesis, and evaluation when working with them [15].

The lessons actively drew on intra-subject connections within geography and across previously studied courses, as well as inter-subject connections with related disciplines.

The above demonstrates a 20 % increase in knowledge quality during the experiment, from 52 % to 72 %. The use of active learning methods and modern information and communication technologies (ICT) influenced the change in the interest of students in class 9 “A” and the structure of their motivations.

During the experiment, active-positive interest increased from 28 % to 52 %, an increase of 24 %, positive interest decreased from 44 % to 36 %, a decrease of 8 %, indifference to the subject decreased from 20 % to 12 %, a decrease of 8 %, and disinterest in the subject decreased from 8 % to 0 %.

According to the results of the experiment, more than half of the class, namely 52 %, were actively and positively interested in the subject of geography. The total active and positive interest reached 88 %.

During the pedagogical experiment, the motives of three students changed from social to cognitive, and one student's motives changed from social to a combination of two cognitive and two social motives.

These changes demonstrate an increase in internal academic motivation. Students began to show independent interest in geography lessons and enthusiasm for the process. The values of cohesion and teamwork were fostered through the organization of group work and the provision of peer support to lower-achieving students.

Conclusion

After analyzing and evaluating the academic performance, quality of knowledge, interest in geography, and motivation in the geography learning process of the experimental class students before and at the beginning of the experiment, teaching methods and tools were identified that are aimed at improving the quality of students' knowledge, shifting their interest in geography towards positive and actively positive, and developing students' internal cognitive motivation.

During the experiment, tasks aimed at developing students' higher-order thinking skills, namely analysis, synthesis and evaluation, were actively used.

The expected results of the experiment on the skill of "Analysis" were as follows. Schoolchildren analyzed data and information presented in graphical and tabular forms; cause-and-effect relationships between processes and phenomena occurring in the geographical environment, geographical milieu and social production [16].

The expected results of the experiment on the skill of "Synthesis" were that students synthesized data, rules, principles and patterns to present them in the form of tables, graphs, messages, reports and presentations; they put forward hypotheses, arguments and explanations.

The expected results of the experiment on the skill of "Evaluation" were that students would evaluate the impact of various physical and chemical processes on human life and the environment; the impact of production on maintaining the balance between the components of living nature; the importance of the proper use of minerals and natural resources; and propose ways to solve problems [17].

During the pedagogical experiment, active learning methods were widely used to increase learning motivation: problem solving; conducting discussions, research, design, modelling, geographical experiments, and games; the use of visual aids, group cooperation, and reflection. With the help of ICT, students' interest in the subject increased, and the teacher was able to stimulate the activity, curiosity, and cognitive activity of schoolchildren, facilitate the presentation of material, and ensure maximum visualization of geographical processes and phenomena [18].

Thus, the results of the study confirm that the targeted use of various methods and forms of organizing educational activities in physical geography lessons contributes to the development of cognitive interest and increases students' interest in studying the subject. The implementation of the proposed pedagogical approaches stimulates students' cognitive activity, contributes to a more conscious assimilation of the educational material and the formation of sustainable learning motivation. The results of the experiment testify to the expediency of applying these methodological solutions in the practice of teaching physical geography in general education schools.

The results obtained confirm the need for further improvement of the methodology of teaching geography, focused on the development of cognitive interest and increasing the interest of students in the study of natural processes and phenomena.

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Мектепте физикалық географияны оқу кезінде оқушылардың танымдық қызығушылығын дамыту: эксперименттік зерттеу

Мақалада қазіргі мектепте физикалық географияны оқу процесінде білім алушылардың танымдық қызығушылығын дамыту және пәндік қызығушылығын арттыру мәселесі қарастырылған. Географиялық білім беру сапасын арттыру және оқушылардың танымдық іс-әрекетін жандандыру шарттарының бірі ретінде тұрақты оқу мотивациясын қалыптастырудың маңыздылығы атап өтілді. Білім алушылардың танымдық қызығушылығын дамытуға ықпал ететін оқу іс-әрекетін ұйымдастырудың әртүрлі әдістемелік әдістері мен формаларын қолданудың тиімділігін анықтау бойынша педагогикалық эксперименттің нәтижелері ұсынылған. Зерттеу барысында эксперименттік жұмыс жүргізілгенге дейін және одан кейін білім алушылардың танымдық қызығушылық деңгейіне талдау жүргізілді. Алынған нәтижелер білім алушылардың қызығушылығы мен танымдық белсенділігі көрсеткіштерінің оң динамикасын көрсетеді. Ұсынылған педагогикалық әдістер мен әдістерді физикалық географияны оқыту тәжірибесінде қолданудың орындылығы туралы қорытынды жасалды.

Кілт сөздер: танымдық қызығушылық, танымдық іс-әрекет, оқу мотивациясы, мектептегі білім, физикалық география, педагогикалық эксперимент, белсенді оқыту, географияны оқыту әдістемесі.

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Развитие познавательного интереса обучающихся при изучении физической географии в школе: экспериментальное исследование

В научной статье рассматривается проблема развития познавательного интереса и повышения предметной заинтересованности обучающихся в процессе изучения физической географии в современной школе. Акцентируется значимость формирования устойчивой учебной мотивации как одного из условий повышения качества географического образования и активизации познавательной деятельности школьников. Представлены результаты педагогического эксперимента по выявлению эффективности использования различных методических приемов и форм организации учебной деятельности, способствующих развитию познавательного интереса обучающихся. В ходе исследования проведен анализ уровня познавательного интереса обучающихся до и после проведения экспериментальной работы. Полученные результаты свидетельствуют о положительной динамике показателей увлеченности и познавательной активности обучающихся. Сделан вывод о целесообразности применения предложенных педагогических методов и приемов в практике обучения физической географии.

Ключевые слова: познавательный интерес, познавательная деятельность, учебная мотивация, школьное образование, физическая география, педагогический эксперимент, активное обучение, методика преподавания географии.

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