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DEVELOPMENT OF RESEARCH SKILLS OF GEOGRAPHY STUDENTS BASED ON THE ACTIVITY APPROACH

Annotation. The article analyzes the problem of development of research skills of students in geography based on the activity approach, which allows taking into account the intellectual features of students. The use of the activity approach in education is one of the bases for the formation of research skills. In the process of formulating the problem and performing various tasks, the student's thinking is activated. In the process of the activity approach, the student independently analyzes factual material, formulates a research problem, selects methods and techniques for performing research work, interprets, analyzes and argues the material, independently draws conclusions and conclusions.

Key words: educational process; study geography; development of research skills of students; activity approach, activation of thinking, analysis of what is being studied; independence in formulating conclusions and conclusions.

Introduction

Currently, the educational process in the secondary school is aimed at the formation of students' skills in research and project activities. Formation of skills is carried out by including the student in research activities. It is known that the research technology of education is a system of actions for the organization of educational and cognitive activities by setting and independently creatively solving cognitive and practical tasks for students. In other words, research skills are the student's desire for cognitive activity, the ability to compare, analyze, independently solve the tasks set before him [1].

Research work stimulates the student's creativity and independence, forms the ability to analyze, compare, draw own conclusions. The formation of research skills is aimed at the formation of personal, regulatory and communicative learning results. Personal results include self-development, self-regulation, self-control and self-assessment of the student. In relation to regulation, the ability to work with information, modeling, the ability to implement the students' choice of the most effective methods of solving problems. K communicative means the implementation of speech activity in both oral and written forms.

Passing the above-mentioned stages, students form and develop the ability to acquire new knowledge, analyze it, compare, compare and draw their own conclusions. As a rule, curiosity is the basis for searching for new information and initiating research work. Based on this, when choosing a topic, it is necessary to be guided by the level of complexity, the volume of the upcoming work, the availability of literature, and the time it will take to work on the research.

As part of our research, we tried to study the problem of developing research skills of students in geography based on an activity approach that allows taking into account the intellectual features of the student. The use of the activity approach in education is one of the bases for the formation of research skills. In the process of formulating the problem and performing various tasks, the student's thinking is activated. In the process of the activity approach, the student independently analyzes the factual material, formulates the research problem, selects the methods and methods of carrying out research work, interprets, analyzes and argues the material and finally gets the expected result.

Materials and methods of research

I will describe the content of research activities of students at different levels of activity. We have identified three levels of research activity. The basic level of research skills is the performance of individual operations, the assimilation of individual, simplest methods of actions and their realization, the comparison of these actions with reference ones, a positive attitude to the educational task being performed. The basic level assumes that the student can perform actions according to the algorithm, neither planning nor controlling them.

At an advanced level, students are able to independently solve educational tasks, consciously analyze their own activities, plan and control, and cooperate with others and teachers.

At a high level of research activities, the student shows the ability to independently organize and implement research activities, to independently set goals, to search for means and methods to achieve them, to control the process of solving educational tasks and to implement corrective actions. The learner is able to independently transfer methods of action to solving various situations, to choose the optimal solution to a task or problem. This level of formation of research skills can be considered a stage of self-management.

Thus, at the basic level, students perform small researches according to the sample, the possession of elementary knowledge of the organization of their own research is noted, they operate with separate research skills.

At an advanced level, students use knowledge of research activities, can determine the topic of research, goals and tasks of research with the help of a supervisor, work with different information sources; able to solve the research problem in an original way and present the obtained result.

At a high level, there is a constant interest in conducting educational research, a creative approach when choosing a topic of educational research, the ability to formulate goals and tasks, the ability to independently choose a way to solve the tasks at the stages of research; the ability to creatively and non-standardly present the results of research [2].

Therefore, as a result of research work at any level, research skills and abilities are formed.

We have also distinguished three levels of independence: operational, tactical and strategic. A student operating at the operational level performs individual technological operations without delving into the overall meaning of the work.

The tactical level requires the ability to orient oneself in a changing situation, rationally build actions in their sequence and plan them. Use reference and other necessary literature, distribute roles in collective work.

Actions of transformation, modeling - selection of the essential, abstraction from specific situational values; formation of generalized knowledge. We have selected properties whose names describe actions:

- fullness of action (fullness of operations, expanded or shortened action);
- reasonableness - selection of essential conditions necessary for achieving the goal;
- awareness (awareness);
- the possibility of reflecting the content of the action, the sequence of operations, significant for achieving the result;

generality - the ability to transfer to other situations;

- criticality - actions determine the degree of awareness of the action and reflection of the choice;

mastery - action is characterized by its temporality and the possibility of transition from one form of action to another.

Each of the named properties can be purposefully formed or acquired spontaneously by the "trial and error" method. In order not only the result, but also the process to be productive, a complete orientation framework helps to ensure the step-by-step formation of mental actions and the mastery of educational material based on them. Therefore, it would be a mistake to reduce the activity approach in education only to a set of educational technologies or methodological techniques.

Research results

The activity approach is the methodological basis of developmental education, focused on the search for specific methods, technologies, the implementation of which is aimed at revealing the essence of the personality of students, reproduction and creativity in the system "student - student - teacher". Only in creation, in one's own individual efforts, in dialogue with others, personal and social emerges [3].

Next, we offer for consideration the geoecological tasks used by us, which allow to form research skills based on the activity approach in the process of teaching students.

Table 1. Scientific research work of students based on the active approach to the geoecological study of soils in their region

A complex of research works	Content
1. Study of the structure and composition of soils	1. Analysis of soil in different areas of the territory of the region. 2. Determination of chemical

	composition of flowering soil. 3. Study of color changes in different soil horizons. 4. Analytical determination of soil chemical composition. 5. Compilation of the analysis of the basis for conducting scientific research.
2. The study of soil acidity and its influence on the growth of plant cover	1. Study of the vegetation cover of the soil of the studied area. 2. Research on determination of Ph soil. 3. Establishing the correspondence of chemical analyzes with the vegetation cover of the studied territory.
3. Studying the degree of soil moisture	1. Soil moisture research depending on terrain and vegetation cover. 2. Influence of soil moisture on plant cover and formation of the mechanical composition of the soil.
4. Study of new formations and inclusions.	1. Investigation of new formations and inclusions in soil horizons. 2. Formation of compositional soil and influence of ego on formation of soil. 3. Compilation of answers on the basis of research.

Table 2. Scientific research work of students based on the activity approach for the geoecological study of the waters of their region

A complex of research works	Content
1. Issledovanie vod svei oblasti	Research of local rivers or lakes, their origin and formation.
2. Investigation of physical and chemical properties of water	Studying the composition and quality of water.
3. Ecological state of water	Identifying the causes of the negative ecological state of the waters of the area. Proposals for neutralization and improvement of the geoecological state of local waters.

As we emphasized above, in order to form research skills, it is expedient to design a lesson plan for students using various technologies.

The design of the educational process represents the implementation of a certain sequence of stages:

- planning and analysis of new educational results (personal, regulatory and communicative, etc.);

- the selection of types of educational activities that ensure the achievement of new educational results;

- selection of educational tools.

When preparing lessons for students in an informational educational environment based on the use of information technology tools, it is necessary to be able to select learning tools for the implementation of new types of educational activities. Such means of education include:

- electronic educational resources (electronic publications for the support and development of the educational process, electronic information and reference sources, electronic publications of general cultural character);

- educational Internet resource;

- necessary computer equipment (computer, video projector, printer, scanner, interactive whiteboard, interactive tablet, panel, etc.);

- means of telecommunications, etc.

It is absolutely possible to state that the use of digital information technologies allows:

- strengthen motivation, increase interest and expand cognitive needs of students;

- ensure individualization of training, create prerequisites for the transition to personal-oriented training;

- increase the interactivity of training, develop the dialogical nature of the educational process;

- increase the level of visualization of the studied material;

- expand the range of educational tasks used in education;

- to include in cognitive activity an arsenal of new methods based on the use of digital information technologies;

- create opportunities for using new sources of educational information (information and reference systems, electronic encyclopedias, file archives, Internet resources, etc.);

- increase the efficiency of monitoring the results of training, create a database of educational achievements of students [4].

Based on these recommendations and rules, we developed lesson plans using new information and digital resources.

For example, the lesson plan for the discipline "Geography of Kazakhstan", grade 9, topic "Mineral resources of Kazakhstan"

Goals and tasks: to form and develop the concepts of "minerals", "place", "basin"; to concretize the presentation of students about the most important areas of the location of mineral deposits; to form the ability to establish connections between the tectonic structure, relief and useful minerals; contribute to the understanding of the need for rational use of mineral resources and protection of the earth's subsoil.

Type of classes: Problem learning.

Planned results:

-personal achievements (the ability to construct verbal statements in oral and written form)

- cognitive achievements (searching and extracting information from the global Internet, working with maps, including online maps)

- regulatory achievements (targeting, planning, control and evaluation)
- communicative achievements (effectively interact with other students, ability to listen, engage in discussion)

Resource: computer, educational presentation, textbook, mineral collection.

Discipline "Geography of Kazakhstan", class 9, topic "Water resources of Kazakhstan"

The purpose of the lesson: to expand students' knowledge about uneven distribution of water resources on the territory of Kazakhstan, types of pollution; to tell about the protection of water resources and their economic use; to form skills for working with maps; develop students' cognitive abilities.

Planned results: personal achievements (ability to construct verbal statements in oral and written form)

- cognitive achievements (searching and extracting information from the global Internet, working with maps, including online maps)
- regulatory achievements (targeting, planning, control and evaluation)
- communicative achievements (effectively interact with other students, ability to listen, engage in discussion)

Teaching aids: multimedia projector, computer, presentation for training, materials, including tasks and tests.

Conclusion

Thus, in the process of using and forming research skills based on the activity approach in teaching geography, the following research abilities are developed:

- ability to choose and formulate a scientific problem;
- form research goals and objectives;
- determine the subject and object of research;
- the ability to select and conduct independent work with research sources;
- advance hypothesis research;
- analyze and compare data;
- verify and prove hypothesis;
- argue the process, draw conclusions and conclusions;
- present the prepared work;
- determine the scope and boundaries of the application of research results.

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БЕЛСЕНДІЛІК ТӘСІЛІНЕ СҮЙЕНЕ ОТЫРЫП, ГЕОГРАФИЯ ПӘНІНЕН ОҚУШЫЛАРДЫҢ ЗЕРТТЕУШІЛІК ДАҒДЫЛАРЫН ДАМЫТУ

Аңдатпа. Мақалада оқушылардың интеллектуалдық ерекшеліктерін ескеруге мүмкіндік беретін белсенділік негізінде география пәнінен оқушылардың зерттеушілік дағдыларын дамыту мәселесі талданады. Оқытуда белсенділікке негізделген әдісті қолдану зерттеу дағдыларын дамыту негіздерінің бірі болып табылады. Мәселені құрастыру және әр түрлі тапсырмаларды орындау барысында оқушының ойлауы белсендіріледі. Белсенділік тәсілі процесінде студент фактілік материалды өз бетінше талдайды, зерттеу мәселесін тұжырымдайды, зерттеу жұмысын жүргізудің әдістері мен тәсілдерін таңдайды, материалды түсінеді, талдайды және дәлелдейді, өз бетінше қорытынды мен қорытынды жасайды.

Кілт сөздер: оқу процесі; географияны оқыту; оқушылардың зерттеушілік дағдыларын дамыту; белсенділік тәсілі, ойлауды белсендіру, зерттелетін нәрсені талдау; қорытындылар мен қорытындыларды тұжырымдаудағы дербестік.

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РАЗВИТИЕ ИССЛЕДОВАТЕЛЬСКИХ НАВЫКОВ УЧАЩИХСЯ ПО ГЕОГРАФИИ НА ОСНОВЕ ДЕЯТЕЛЬНОСТНОГО ПОДХОДА

Аннотация. В статье проанализирована проблема развития исследовательских навыков учащихся по географии на основе деятельностного подхода, позволяющего учесть интеллектуальные особенности учащихся. Использование деятельностного подхода в обучении является одной из основ для формирования исследовательских умений. В процессе формулирования проблемы и выполнения различного рода заданий происходит активизация мышления ученика. Ученик в процессе деятельностного подхода самостоятельно анализирует фактический материал, формулирует проблему исследования, отбирает методы и приемы выполнения научно-исследовательской работы, осмысливает, анализирует и аргументирует материал, самостоятельно делает выводы и умозаключения.

Ключевые слова: образовательный процесс; обучение географии; развитие исследовательских навыков учащихся; деятельностный подход, активизация мышления, анализ изучаемого; самостоятельность в формулировании выводов и умозаключений.