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Formation of high-level thinking in updating the content of geography in schools

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Abstract

Relevance. The relevance of the research of the article is due to the problem of updating the content of education on the subject of geography at the school stage of obtaining knowledge in Kazakhstan.

Purpose. The purpose of the article is to develop a model for the formation of thinking skills at a high level within the framework of studying the subject of geography in schools.

Methodology. The method for studying this problem is a method for diagnosing motivation on the development of G. I. Shchukina "Diagnostics of the level of cognitive activity of students", which allows assessing the degree of active cognitive interest at the level of motivation and cognitive thinking with the presence of an effective and practical component.

Results. The article presents the parameters that contribute to the development of active cognitive and thinking interest among schoolchildren and a model for the formation of thinking at a high intellectual level within the educational process of studying geography, which includes a whole model of studying at the global level for cognition of life with recognition of its associative and general parameters and territorial features of the plant and animal world within the population of countries based on motivational-value, cognitive-communicative and cultural-aesthetic criteria.

Conclusions. The model of geography cognition at the global level promotes the development of a deep and high level of mental activity with an understanding and awareness of the whole picture of life on earth, with its identical manifestations, and features related to climate, terrain with a more detailed study of individual geographical areas, which

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makes it possible to understand and realize the general principles of life support, human life and the surrounding world, and forms active cognition bearing practical significance for the entire education system and the well-being of society.

Keywords: development of thinking; geography lesson; school education; pedagogy.

Introduction

Currently, there is a periodic renewal of education in various specialties, which is dictated by the need to prepare an educational order for the development of a smart, intelligent person with the makings, abilities to think from the position of the value parameters of a prosperous life, who can think, analyze, compare facts and understand even at the initial thought process of thinking about the idea of its final result with its impact on lifestyle, health and ecology, and those parameters that in the modern world have a special, dominant significance at the global level and are considered priority tasks for their implementation at the level of each country [1]. So there is a necessity for training in the framework of educational activities at school to form a student's personality with high intellectual potential, the ability to think creatively, conscious health-preserving and environmentally-friendly behaviour, with an understanding of a cognitive-active approach that allows applying knowledge in practice with a deep understanding of its importance and necessity for life in conditions of respectful and benevolent emotions towards the surrounding world, all this will contribute to the implementation of emerging life tasks from the position of developing the well-being of society and restoring and preserving the ecological balance, which will become an integral model of behaviour within the framework of the above-described conditions for the formation of further creative behavior in the study of geography in the context of updating the educational program [2-4].

Educational programs in the field of geographical subjects are also relevant from the point of social changes in public life in the world and the development of trends for environmental preservation, which is dictated by the real need in the conditions of environmental deterioration and intensification of natural disasters that are activated as a result of changes in the ecological balance, which is confirmed by many scientists and researchers who repeatedly emphasize the importance of starting the age of ecological restoration [5-6]. This gives a legitimate need for the introduction of these knowledge already at the school education level to form a complete knowledge of the world and the surrounding environment, including the life of the biosphere, its flora and natural world, which are taught within the subject of geography [7-9].

Thus, the updated educational program implies the education and presentation of knowledge to schoolchildren in geography for their acquisition of a cognitive and active approach, which allows them to successfully use and apply that knowledge in their lives on the basis of acquired knowledge to maintain and develop a prosperous component of life, both a person and the surrounding world as a whole. It is the discipline of geography that gives an idea of life on different continents, countries, both people and representatives of the animal and plant world, as well as about natural phenomena and features of their manifestation depending on the climate [10-13] And in this environment of knowledge, it is important for students to give knowledge from the position of deep understanding

and comprehension that life and its manifestations are the same for everyone in general, for its healthy maintenance and have their own very small features depending on the species and category [14; 15]. And it is precisely this picture of the knowledge of geography that will allow formation of deep thinking at a high level for the cognition of geographical knowledge in the field of the subject with the formation of a general, whole idea of the common structure of life, life support within its natural manifestation, based on innate, initially inherent physical and other qualities, and parameters within the necessary conditions for maintaining the successful development of life, both human, and representatives of the animal and plant world. Such a level of education will arouse a natural interest with an understanding of the practical importance of the acquired knowledge, which, within the framework adopted as the basis of modern education, health and environmental conservation by the students themselves, will be directed to the successful development of society, ecology and life in general.

Materials and Methods

This study was conducted using the diagnostic questionnaire method to study the features of the development of interest in education and the degree of active educational motivation on the development of G. I. Shchukina "Diagnostics of the level of cognitive activity of students". The presented method determines the level of active cognitive interest with regular manifestations in the environment of personal perception at the level of interest in the subject of geography and active motivation for studying it with the acquisition of high cognitive thinking using in practice the acquired effective and practical components of cognition.

The questionnaire contains questions that make it possible to characterize the qualities that determine the external and internal parameters of motivation, accordingly, external indicators include interest in showing your knowledge in the lesson, creating a favourable opinion of the teacher about yourself, getting an assessment, and it should be noted that the manifestation of external motivation can accompany the characteristics of a person's personality, inclinations for communication and, which in turn will manifest itself during lessons, but at the same time it will not be an absolute indicator of knowledge, because a deep level of knowledge implies data clarification, comprehension and reflection, and activity during the lesson, communication with the teacher, which can have different criteria, communicating with classmates, preparing homework, showing interest in studying additional literature, good academic performance in the subject. The reactions of internal motivation include a number of characteristics that show the true interest of the student in studying the subject, and these include the emotional state and attitude in the lesson, emotional reactions that the student shows in the lesson, a sense of confidence, comprehension and asking various questions that show an in-depth knowledge of the subject with the

clarification of the totality of knowledge with the formation of cognitive and interrelated connections, as well as attention, speed of reactions and cognitive orientation within the framework of the studied subject. All this is evaluated additionally during the pedagogical observation, which is an integral part of this experiment.

It is also worth clarifying that these parameters can be evaluated only if the geography lesson was held in a health-preserving and respectful emotional environment, as well as the absence of an unpleasant previous experience of communicating with this teacher among schoolchildren earlier, where students were subjected to disrespectful attitude and administrative pressure from the teacher, which can be said more precisely only with hidden video surveillance during lessons, as well as high literacy of the teacher, having deep knowledge of the subject of geography and mixed disciplines, and having a culture of psychological health preservation. Thus, under the conditions described above, ready-made keys were used to calculate the data of the diagnostic questionnaire, which allowed determining the level of interest in studying the subject by parameters such as high, medium, low, zero, and when calculating the overall results of the study, the standard method of mathematical calculation and graphical representation of the results was used.

For a pedagogical experiment, a study was conducted on the basis of secondary school No. 29 of the Almaty region of the Ile district. The survey was conducted among 70 students of the 9th grade at the age of 15 years. The study of the issue under consideration was carried out in three stages, where the first stage involved a theoretical analysis of the research and methodological literature on the development of high-level thinking skills in geography studies and the identification of the problem, purpose, research methods and work plan. The next step was a survey of respondents with the specification of parameters that affect motivation and interest, which are important for the development of thinking, experimental work was carried out with the analysis of the results and the formulation of conclusions. The third stage was final in the work and the conclusions were clarified and the results were systematized.

Results and Discussion

The obtained results of the diagnostic questionnaire and pedagogical observation with the clarification of a number of aspects of the respondents made it possible to identify parameters reflecting the personality indicators of schoolchildren, at the level of developing interest and motivation according to a set of external and internal indicators responsible for motivational, meaningful, effective components. Thus, a detailed analysis will identify an ordered set of qualities necessary for the knowledge of the discipline of geography, which determines the importance of knowing the structure of the world and life on the planet within the framework of social, natural, social relations with the manifestation of intellectual, behavioural and emotional properties and reactions in relation to life and the surrounding world, based on natural relationships, and in the aggregate associated with human activity in relation to all components of the surrounding world, and the natural life of the animal and plant world in the sphere of climatic

features [16]. The importance of understanding this motivational concept should be considered from the perspective of a whole education and the idea of the world in general, as a single whole system of life in which everything is interconnected, and indeed which is such, being the ecosystem and biosphere of the planet, the globe, on which life exists in its various manifestations and aspects and which is studied within the discipline of geography [17].

Thus, the study of the specificity of natural conditions taking into account climatic changes, which in fact has common components based on the vital needs at the physical, psycho-emotional and social level of all structures of the biosphere within the framework of healthy life activity dictates the importance of considering the parameters obtained during the questionnaire and pedagogical observation based on motivational and value criteria in the direction of obtaining knowledge that should be correctly understood and used in their personal life, and future professional for the development of prosperous living conditions, and the habitat of members and structures of the biosphere, general and individual features, which are considered from the standpoint of preserving their natural living conditions for their favorable development, life support and reproduction, which is an indicator of the well-being of the conditions and atmosphere for life, based on all species and representatives of the plant and animal world, as well as human life in harmony with the world around one against the background of one's own well-being in the context of health and eco-sustainability which should initially be brought up and learned at the level of knowledge of the school curriculum, and especially within the framework of studying the subject of geography [18-20]. All of the above was taken into account in the study under consideration, and these components in interaction reveal the organization of the process of forming a model for the development of thinking skills at a high level within the framework of studying the subject of geography in the educational process in school education. The result of the study under consideration is understood to be the level of formation of a model for the development of high-level thinking skills in the study of geography.

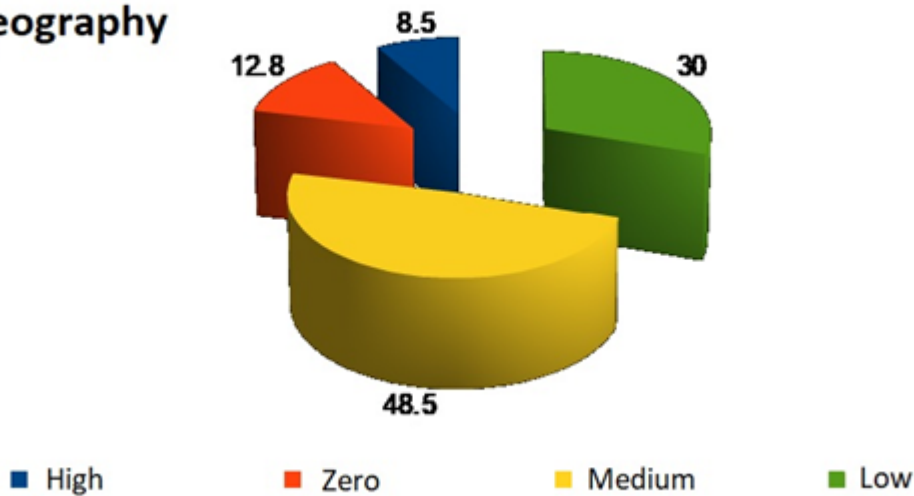
The research work with the created model of forming the skill of high-level mental activity in geography was introduced into the educational process in several stages, which implied determining the initial level of attitude, interest and motivation to study geography during the questionnaire, pedagogical observation and clarification of the necessary respondents, and further statistical processing of the results obtained. At the next stage, there was a development and implementation of parameters for the development of complex motivation and a model for the formation of the development of a high level of thinking by studying geography for their subsequent implementation in the field of practical education, which later made it possible to determine the level, to identify the presence of active interest and motivation to study this subject at school.

Thus, the study covered 70 schoolchildren and the analysis of the results of the diagnostic questionnaire showed that most of them do not have a formed motivation at the proper level, which does not allow them to develop

interest in the subject area and activate their mental activity. The revealed results showed that 34 (48.5%) schoolchildren have an average level of motivation, a high

level was determined in 6 (8.5%) respondents, a low level in 21 (30%), and zero in 9 (12.8%), as shown in Figure 1.

Number of students according to their level of motivation to study geography



Data analysis made it possible to state that most schoolchildren do not take part in the educational activities of the lesson, not perceiving what is happening in class at the level for the formation of cognitive data of the information taught to them, this trend says that such an action in the classroom does not allow forming a thought process within the lesson, as in this case in the geography, even at a low level, let alone at a high, competent one, implying analysis and comprehension of information on the totality of its presentation and personal perception for its further use in their lives. These results show that most students are not interested in the lesson and do not understand the importance of geography knowledge, and how they will be able to apply it in practice and then use it in their future life. Their personal perception of the geography lesson passes the barrier of indifference and understanding that they will not need knowledge of this subject in their life, and some of them express interest only in maintaining good academic performance and the need to get good grades in school education, all this shows the necessity to rethink the training program for further implementation of a holistic picture of the perception of the world, which is essential for the knowledge of geography at a qualitative, high level, as a representation of the way of life on the planet in each of its areas based on the general vital parameters of human, animal and plant world, and features based on personal natural living conditions and vital activity based on the climate or psychophysiological characteristics.

Thus, the trend and parameters for the implementation of the research conditions were identified in the process of designing a model for the development of a high level of thinking in the study of geography. Step-by-step analysis of the results made it possible to identify the main components of this process and determine the main ones, depending on the level of interest and motivation for the

necessary further methodological study of educational needs of schoolchildren based on their level of development, and the degree of expression of their personal qualities to strengthen mental activity, which is possible only with a successful manifestation of interest in the subject. The highlighted factors for assessing resource capabilities and a predisposition to education, self-study, self-discovery in order to designate a subject as further cognition for the formation of a system of personal attitude to the study of geography make it possible to talk about the necessity of presentation of data from the integrated system of life on the planet with the criteria of educating students of respectful attitude to nature, flora and fauna, with a respect to their life and natural habitats. This positive attitude is based on the knowledge of a holistic picture of the world, which is beneficially perceived from the general perspective of the knowledge of the world as emotional perception of the theoretical journey through it through its different areas, climatic zones, countries, studying its plant, animal the world, as well as the spheres of human life, which, in fact, in each zone of the planet have common principles, elements and the basis of life, and prosperity, also has a common foundation that does not depend on the factors of geographical location. It is the understanding of this that will provide an overall picture of the perception of the subject geography, which will be studied from the perspective of the traveller to different places of the earth, considering the field of geography learning with a model of the globe, which will be studied as with the common criteria of eco-conservation and principles of the natural habitat of fauna and flora, and of course of human life. Also, by deepening knowledge, and by exploring from the traveller's perspective certain places, countries, regions of the globe, as models of the earth, clarifying the features of natural, cultural and aesthetic values of human life, and other inhabitants of data geographical locations with the

position of respectful attitude toward them, and favourable susceptibility life of other people to form a holistic, common, value-based environmentally friendly and health-preserving worldview with a competent knowledge of living in different geographic areas according to the model of the globe, that is, of the globe, as a person carrying the high culture of the aesthetic perception of the world and life in general for a favourable future interaction within the framework of both personal and professional activities aimed at developing the well-being of society [21].

Thus, taking into account the above, the parameters were determined and a model of forming thinking at a high intellectual level was developed as part of the educational process in the geography lesson, which includes studying the subject from the perspective of considering a whole model of the planet with all its regions and countries in the form of a globe model for integral and value cognition, and awareness of life with an understanding of its associative general parameters, and with the territorial features of the plant and animal world, as well as within the population of countries based on motivational-value, cognitive-social and cultural-aesthetic criteria.

In the follow-up control phase of the study, data was revealed in the framework of dynamics, taking into account the results obtained during repeated questioning after testing this training system in practice. This revealed an interest in the geography subject among all students (100%) who turned out to be dreamers in terms of travelling and wanted to learn about life from the perspective of considering it on a model in the form of a globe model with further travels to its various areas, countries, cities and discovering life at different levels, and in its various multifaceted manifestations within the framework of the aesthetic and cultural development of the student's personality in the context of presenting their health-preserving classes on a positive, cheerful emotional state with an ecologically oriented direction of the educational process, and with examples bearing a positive criterion from the above positions. Thus, all 70 (100%) students were found to be more motivated to study geography and their emotional state changed while being present at the lesson, which began to arouse their interest, 54 (77.2%) students had a high level of motivation, and the remaining 16 (22.8%) had an average of motivation, as shown in Figure 2.

The level of student motivation to geography

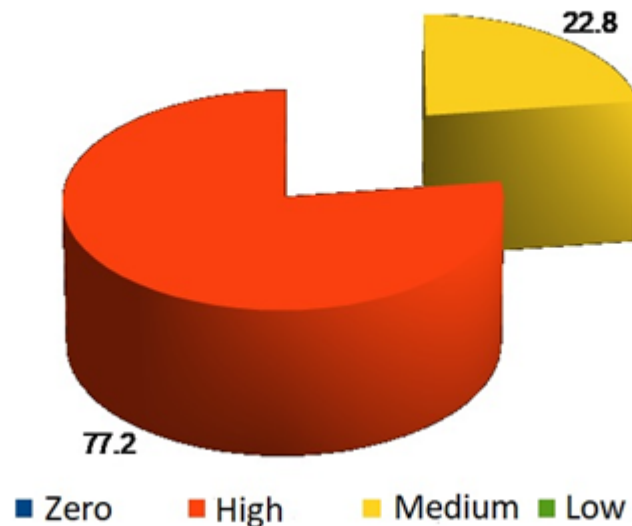


Figure 2. Distribution of schoolchildren by levels of motivation to study the subject of geography at the control stage of the experiment.

The level of modern education places great demands on the quality of knowledge itself, which must correspond to a high level in terms of in-depth knowledge of science, taking into account their application at the level of an active approach, which will ensure the improvement of the living environment at the level of preserving and restoring health and ecology. Currently, they are the main and fundamental tasks of the global level, where it is important to realize which, when applied to any sphere of the educational process, having the main value for acquiring skills in this direction, for their future application in their lives, and at the level of professional activity, which will be fundamental for the development of processes related to

life support, as well as the scientific and engineering order, which, based on these criteria of the tasks set, will be implemented at the level for the development and preservation of a prosperous life of society [22]. The subject of geography includes knowledge of a complex order, which makes it possible to realize that there is life on every part of the earth and it is the same in its main parameters based on the needs for restoring health and ecology at the physical, psycho-emotional and social levels for important aspects of human life, as well as the surrounding world, animal and plant, with natural objects and phenomena that carry one of the main functions for the implementation of all processes related to human life and other living beings [23; 24].

A big task is imposed on the discipline of geography to teach students to understand this fact, so that they can build parallels and realize that the same people live on another continent, some of whom are schoolchildren, and they need absolutely the same processes of vital activity and life support for their happy, prosperous life, as them. [25]. They should also study and learn in the lesson that on another continent, people of the same age as themselves are surrounded by the natural world, with forests, fields, reservoirs, where animals, birds, insects live, and their life cycle is similar to those that live in the forests next to them, and that for their prosperous life and existence, and maintaining an ecological balance that depends on all the circumstances that occur anywhere on the planet, due to natural factors and the balance of temperature, wind, water evaporation, precipitation, many other environmental factors and the essence that is responsible for a healthy the balance and maintenance of the entire ecosystem should be equally maintained simultaneously in all zones and areas of the earth, regions of the world, and the planet. Thus, knowledge within the subject of geography becomes important and plays a valuable role in the education of the younger generation, who during school education receive the fundamental basics of knowledge and skills of organizing common areas in the world for their application in their future life [26].

But the recognition of knowledge, understanding it at a deep level is available only with a developed thought process, on which the human intellect depends, and it is the conditions that allow people to perceive knowledge and ponder it, and create prerequisites and conditions for the development of thought processes. Although in this direction it is important to remember the circumstances that thought can go in different directions and it is on its development, on which direction it will go, that the process of activity and the results of human action will depend, having both initial and long-term consequences that can lead to a violation of a harmonious, healthy life, create conditions for deterioration of health or the environment, disturbing the natural and ecological balance in different areas, and all this is life-threatening, and therefore should be corrected even at the stage of the educational process, where a good example should be shown on the creation of a behaviour model that carries health-preserving and environmental-saving functions [27]. After all, the process of education is built on three main aspects, and the first of them is the moral component of one's personality, on which all motivational reactions will depend, because it is motivation, as the steering wheel of life, that will guide a

person to perform certain actions, on which the life of essentially everyone in the world will depend [28]. Therefore, this aspect dictates the formation of value motivation among schoolchildren to restore and maintain health and ecology, and it should take place at the official methodological level of implementation in the field of education, as an environmentally oriented and health-saving education, and presenting it within the framework of geography will allow schoolchildren to realize that at each a plot of land has the same life as around the students themselves and someone lives on it, and their life should also be prosperous, both for themselves and for maintaining the general ecological balance on the planet, on which the life of this very schoolchild also depends, is what geography teaches by describing life in different areas on the model of the globe with the recognition of the life of everyone in general [29; 30].

The second important aspect of education is the fact of the ability to think, or rather, in fact, the possession of mental activity at a high level, and a high level implies a level of moral values with a cultural and aesthetic framework of everything that is, or rather everything, any product of life activity, as personal, household, professional, creative, should proceed from cultural and aesthetic criteria, which are based on beauty, in order to create conditions for contemplation, the quality that is at the very beginning of mental activity [31; 32]. It is by contemplating beauty, and it should be noted that only beauty can be contemplated, then at the level of neurophysiology, the prerequisites for mental activity develop, which deepens with knowledge and expanding horizons, which, also within the subject of geography, should expand, telling how people live in different countries and geographical areas, about sights, achievements, beautiful natural objects and the animal world, which will mostly be similar, but at the same time there are also species that live in close proximity to people living in a particular area [33; 34]. All this will enable students to reflect, analyse and, with the help of the geography teacher, learn to know and determine the general connections of life, and at the same time deepen their knowledge about life in the world in all its interesting and beautiful manifestations, as travellers who go on a theoretical journey in the lesson, looking at photos and videos that strengthen their ideas about the beautiful world of nature and the most beautiful architectural objects, as a result of human activity, for example, but in general, the world is large and multifaceted and within the framework of geography, students will have the opportunity to learn a lot about it from a whole model of perception, and the geography discipline itself carries in a meaningful order, and this is in every task of the teacher of this subject [35]. After the two described as moral values and mental activity, they are followed by the third main parameter of education, such as knowledge, which, in fact, is given in parallel on a common basis, and deepened only after the development of the first two.

Knowledge of the subject of geography is very important and it is important to study it at the level of the school curriculum [36; 37]. This was previously proved, taking into account all of the above, but the form of their presentation is also important, because the methodological approach in the educational environment occupies one of

their important roles, on which depends the maintenance and strengthening of motivation and interest in learning, the desire to gain knowledge, go to school, attend the lesson, hear what the teacher says trying to convey interesting and useful, relevant and important knowledge to their students, their desire to go to this lesson again as soon as possible, study additional literature, engage in independent cognitive activity, and when accumulating knowledge, behave actively in the lesson, and all this together will allow them to have students have a good academic performance, and they will acquire skills that they will be able to apply in their future life for the benefit of society [38-40]. Thus, the foundations of the secret of the perception of knowledge are hidden in the methodology of educational activity [41]. Which, in turn, consists in the formation of the thought process at a high level, and the evaluation of this study, its process and results revealed that it is the approach in the educational process from the general to the particular that made it possible to create all the above-described prerequisites for qualitative cognition, awareness, analysis of knowledge in geography and the acquisition of practical skills in this area by schoolchildren [42; 43].

Taking into account the above, a model of studying the discipline of geography was developed, which will contribute to the formation of thinking at a high level when studying this subject, which is a model of studying the subject based on the globe, where at the first stage students will learn the common elements, parameters, criteria of human life, and the surrounding natural world with the animal and plant world, as well as natural phenomena, and after that they will study in more detail different areas of the earth, or rather models of the earth, as a globe going on a theoretical journey to its different parts, and studying the life of different countries and continents, which will create conditions for the development of interest, and motivations for schoolchildren who will be able to visit places that they love with high knowledge already in their adult life, which will also be a motivational factor for studying geography [44]. This knowledge of geography based on the globe model with methodological prerequisites in inviting students to imagine themselves as travellers will allow them to form a high level of mental activity within the framework of health preservation and environmental conservation when applying criteria such as motivational-value, cognitive-communicative and cultural-aesthetic, which will allow them to educate in during school education, a worthy person with embedded value motivational parameters, which she can use in her professional activities for the benefit of society in the future [45-47].

Thus, the developed model of forming thinking at a high level within the framework of studying the subject of geography has proved to be effective and can be used in practice to form value motivation for learning, independent activity and acquiring practical skills within the subject during the educational process at school education.

Conclusions

The application of the developed model of formation of thinking at a high level in the framework of studying geography at the school level on the basis of the selected criteria will contribute to the successful training of schoolchildren in connection with the formation of their practical and theoretical skills in the field of the subject under consideration. With the developed organization of the educational process, students will have high mental activity with a conscious integral and valuable understanding of geography knowledge at a high and qualitative level, with creative motivational attitudes and goals that will contribute to the flow of their future activities in a favorable direction. On the basis of the selected learning principles that strengthen the formation of value motivation for learning, it was possible to create a full-fledged model of the organization of the educational process for the study of geography within the framework of the model of studying the globe with knowledge of common life factors and parameters, and subsequent detailed study of life in different countries, in geographical areas, which will contribute to the formation of high results of knowledge and acquisition of skills in the field of geography with formed thinking at a high level with a creative and value component of the result of their life improving the vital activity of society at all its levels, as well as to maintain the ecological balance as a whole.

This form of organization of educational activities in geography in the study of a model of the globe with the theoretical journey in a different geographic region makes it possible to create a system of education, essentially about life on earth, from the general to the specific, teaching, and creating a model of analysis and thinking activity for high intellectual level of perception of the world with an emphasis on the preservation of health, welfare and ecological balance on the basis of criteria motivational-value, cognitive-communicative and cultural aesthetic that will have a lasting and strengthening effect on the psychological health of students, and will help to increase and maintain their interest in learning at school. This study makes a major contribution to the field of geography education by providing quality knowledge and insights into the field.

The materials of this article are useful for educators, teachers, methodologists and other workers in the field of education, and can be applied in practice, which will contribute to solving important problems in the field of education.

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Conflict of Interest

None.

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Формування мислення високого рівня в оновленні змісту шкільної географії

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Анотація

Актуальність. Актуальність дослідження статті обумовлена проблемою оновлення змісту освіти з предмета географії на шкільному етапі отримання знань в Казахстані.

Мета. Метою статті є розробка моделі формування навичок мислення на високому рівні в рамках вивчення предмета географії в школах.

Методологія. Методом дослідження даної проблеми є методика діагностики мотивації за розробкою Г. І. Щукіної "Діагностика рівня пізнавальної активності учнів", яка дозволяє оцінити ступінь активного пізнавального інтересу на рівні мотивації та пізнавального мислення з наявністю дієвого і практичного компонента.

Результати. У статті представлено параметри, що сприяють розвитку активного пізнавально-мисленнєвого інтересу школярів та модель формування мислення на високому інтелектуальному рівні в межах навчального процесу з географії, яка включає цілісну модель навчання на глобальному рівні для пізнання життя з розпізнаванням його асоціативно-загальних параметрів та територіальних особливостей рослинного і тваринного світу в межах населення країн на основі мотиваційно-ціннісного, когнітивно-комунікативного та культурно-естетичного критеріїв.

Висновки. Модель пізнання географії на глобальному рівні сприяє розвитку глибокого і високого рівня розумової діяльності з розумінням і усвідомленням цілісної картини життя на землі, з її тотожними проявами, і особливостями, пов'язаними з кліматом, рельєфом з більш детальним вивченням окремих географічних районів, що дає можливість зрозуміти і усвідомити загальні принципи життєзабезпечення, життя людини і навколишнього світу, формує активне пізнання, що має практичне значення для всієї системи освіти і добробуту суспільства.

Ключові слова: розвиток мислення; урок географії; шкільна освіта; педагогіка.