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FORMATION OF CONCEPTS AND FIGURATIVE REPRESENTATIONS IN TEACHING GEOGRAPHY

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Abstract

The article reveals the pedagogical conditions, content, forms and methods of consistent formation of geographical ideas and concepts that make it possible to optimally activate the consciousness and thinking of students, as well as their cognitive interest in geography lessons. The formation of ideas in geography lessons is the formation of a visual image of a previously perceived object or phenomenon (memory representation, recollection), as well as an image created by the imagination. In the process of educational activity, two types of representations are formed: the representation of memory and the representation of imagination.

Modern socio-economic, socio-cultural and environmental conditions of society require a reorientation in the priorities of educational goals: the goal of developing the student's personality at all levels of school education and especially at its initial stage is put in first place.

Primary school is designed to ensure the acquisition of subject knowledge and mastery of the elements of theoretical thinking. In the implementation of these tasks, an important role is played by the process of forming natural scientific knowledge, which allows students to adapt to the surrounding nature, social environment, learn the relationships of natural objects and phenomena, and, in general, acquire knowledge of spatial orientation [5] .

An important component of natural science knowledge is geographical knowledge, which is included in the content of the educational field "Nature". Currently, the teacher has the opportunity to choose at his own discretion one or another educational system, an original school, an alternative program, so it is necessary to clearly define the guidelines of geographical knowledge.

The relevance of the problem is explained by the unresolved nature of some theoretical and practical issues, which does not allow achieving significant results in learning and students' sustainable acquisition of geographical concepts in the primary school course.

It should be noted that in the work of mass schools this problem has not yet been sufficiently solved, since it has not yet received appropriate development in pedagogical science.

Among scientists, there are several points of view on the process of knowledge formation. Thus, B.G. Ananyev, D.M. Bogoyavlensky, N.B. Menchinskaya, E.N. Kabanova-Meller consider it necessary to

form a sufficiently complete sensory experience for students to master scientific concepts. They highlight empirical knowledge at the necessary initial moment of abstraction formation [1] .

P.Ya.Galperin, N.F.Talyzina propose a phased formation of mental actions, which leads to the formation of scientific concepts [4] .

V.V. Davydov and his colleagues consider it advisable to initially master concepts without first reproducing the students' empirical knowledge and concretizing them in the course of further training [3] .

I.F. Svadkovsky, S.P. Baranov, I.D. Lushnikov, I.S. Yakimanskaya argue that the development of theoretical knowledge completely depends on sensory knowledge, and offer targeted guidance in the formation and use of schoolchildren's sensory experience [2] .

It is worth noting the unity of scientists in highlighting the concept as the most important component of knowledge, since it is concepts that serve as a supporting point in the knowledge of reality and are a kind of result of its knowledge.

Geographical concepts are a form of logical thinking that reflects the essential properties, connections and relationships of geographical objects and phenomena.

The concepts studied in the school geography course are represented by general and individual concepts. General concepts are concepts about geographical objects, processes and phenomena that have similar essential features that distinguish them from other objects and phenomena. At the same time, geographical objects do not have their own names [7] .

Let's say the concept of a river, an island, a volcano, an atmospheric front. The content of general concepts is revealed in their definition, which indicates an essential feature or features that are common to all objects related to a given concept. For example, the concept of a river is defined as a natural water stream flowing in a mined-out depression, which is called a river bed.

The general features of a river, which are indicated by the definition of this concept, are a natural water flow and a depression on the earth's surface through which it flows.

General geographical concepts about geographical objects and phenomena are formed mainly in the process of students studying the content of the initial geography course, constituting the scientific foundation of school geography.

The main conditions for the formation of geographical concepts are [9] :

1. Active cognitive activity of students in the process of concept formation, which involves the disclosure of its main essential features that distinguish the object or phenomenon about which the concept is being formed from other geographical objects and phenomena. Identification of the parts of its components in the content of a concept, awareness by students of the relationship of these parts to the concept being formed, clarification of cause-and-effect relationships and dependencies that unite the component parts of the concept into a single basic concept. When forming concepts, the teacher organizes the cognitive activity of students with the text and extra-textual components of the textbook, with a geographical map, and with other teaching aids: pictures, tables, graphical clarity, audiovisual and especially electronic didactic teaching aids.

2. Systemic relationship of concepts, which forms a system of geographical concepts. Thus, in the system of concepts about inland waters, basic concepts and concepts that reveal the essence and features of basic concepts are distinguished. In this system, the basic concepts are river, lake, glacier, groundwater. And the concepts that reveal the basic concept of a river are source, mouth, river basin, river valley, river system, watershed, etc.

3. Gradual, in the process of studying the course, awareness of the essence of the concept as a result of subsequent cognitive activity of students in organizing observations of local geographical objects and natural phenomena, revealing the interrelations of objects and natural phenomena, determining their practical significance in everyday human life.

4. Teacher control of the process of concept formation.

When forming geographical concepts, it is possible to use the following methodological techniques [8] :

1. Reproduction of an idea of an object or phenomenon based on the subjective experience of students. Thus, when forming the basic concept of "river," the teacher, with the help of successive questions, reproduces the students' knowledge: where do rivers originate, where do they flow, what are these parts of the river called, what is the appearance of the area through which the river flows. Students, with the help of the teacher, answer these questions, the teacher on the blackboard, and the students, following the teacher in their notebooks, write down key concepts such as source, mouth, and after examining the picture in the textbook, such concepts as river valley, floodplain, river bed. Having defined the concepts that reveal the essence of the basic concept, the teacher invites the students to independently formulate the concept of "river". Each definition (3-4) is written on the chalkboard, the most correct one is selected, in the opinion of the students, and compared with the definition of this concept in the text of the paragraph or in a short dictionary of geographical concepts and terms in the appendix to the textbook.

2. Students, looking at the pictures in the textbook, fill out the diagram "a river and its parts" in their notebooks. Such a blank diagram is drawn up in advance by the teacher on the blackboard. They find the definition of concepts that reveal the basic concept, and, as a result of the cognitive activity carried out, formulate variants of the definition of the basic concept, compare them with the definition in the text of the textbook or in the dictionary of geographical concepts and terms. It is possible to continue the diagram in the form of records of definitions of the concepts indicated in the diagram.

3. Modeling a river on a chalkboard in the form of a diagram, on a computer printer or using an interactive whiteboard. In the process of such modeling, the image of the river with all its components is gradually recreated in front of the students. Further, based on the designed model of the river, various options for students' cognitive activity are possible: transferring the model to a notebook, reproducing the subjective experience of students in accordance with the content of the model, searching in the textbook text for definitions of highlighted concepts, students formulating a basic concept and determining its correspondence with the definition of a textbook or dictionary of geographical concepts and terms.

The formation of single geographical concepts has a number of features:

- linking the objects and phenomena being studied to a specific location on the earth's surface and to a geographic map;
- the formation of individual concepts is closely related to the ability to determine the geographical location of the objects being studied using a map;
- the formation of individual concepts is carried out on the basis of general ones;
- when forming individual concepts, students' knowledge about basic, general concepts, which are the basis for their formation, is concretized, expanded and deepened [10] .

Mastering a concept means:

- know its definition, understand its content: essential and distinctive features and their relationships;
- have a figurative idea of the studied object or phenomenon;
- master the methods of educational work, with the help of which it is possible to apply knowledge

about the corresponding concept when solving new educational problems.

A representation is a visual image of a previously perceived object or phenomenon (memory representation, recollection), as well as an image created by productive imagination; this is the highest form of sensory reflection in the form of visual-figurative knowledge. In the process of educational activity, two types of representations are formed: the representation of memory and the representation of imagination.

In the process of teaching geography in the aspect of ideas of memory and imagination, generalized and individual ideas, spatial and cartographic ideas, ideas of graphic interpretation, ideas about the instruments with the help of which observations are made, provided for in the curriculum, are formed.

Generalized ideas are students' ideas about geographical objects that do not have their own names. The formation of such ideas is carried out simultaneously with the formation of general concepts.

Single representations are representations of specific geographical objects that have their own geographical names. Their formation is carried out simultaneously with the formation of individual concepts.

Spatial ideas are figurative ideas about the size of a geographical object, its shape, extent, the ability to navigate in relation to the sides of the horizon, the development of students' eye.

Cartographic forms form an idea of the spatial location of continents and oceans on the earth’s surface, landforms, individual large geographical objects, their size, extent, features of the coastline, etc.

Graphic interpretation (interpretation, explanation) allows you to form figurative ideas about the system of concepts that reveal the basic concept. For example, a diagram of the internal structure of a volcano forms students’ understanding of the volcano’s magma chamber, its side craters, the volcano’s crater, lava flows and other eruption products, thereby forming a complete figurative understanding of the basic concept of “volcano”.

The main conditions and didactic features of the formation of geographical ideas are:

1. The formation of ideas is carried out as a result of observations of geographical objects or phenomena in nature or their consideration and perception using visual aids: paintings, tables, graphical visualization, collections of minerals, rocks, minerals, a teacher’s drawing on a classroom or interactive board, during demonstration dynamic models.

2. The formation of ideas is carried out simultaneously with the formation of concepts. This is a unified process of cognition of geographical objects and phenomena. Thus, forming the basic concept of “mountain countries”, the teacher, with the help of visual teaching aids, simultaneously forms figurative ideas about concepts that reveal the essence of the basic: mountain range, pass, mountain top, mountain valley, mountain gorge, highland, etc. The most optimal method of simultaneous formation of the system concepts and figurative representations is the use of electronic visual aids. The teacher himself can develop such electronic educational slides on the most significant topics of the course and, when conducting a lesson on the relevant topic, form concepts and figurative ideas by demonstrating images of these concepts by simulating geographical processes using a computer and an interactive whiteboard.

3. Formation of ideas is an active, teacher-directed process. When demonstrating slides, the teacher focuses students’ attention on the distinctive features of the objects and phenomena being studied, formulates questions of both a reproductive and problematic nature, organizes the students’ compilation of diagrams, tables, and descriptions of the demonstrated objects according to the proposed plan. As a result of completing tasks on drawing objects on a contour map, students form a figurative idea of the size of the object, its extent, spatial location on the earth's surface and location relative to other objects.

4. The formation of ideas is possible provided that students are taught the ability to observe objects and phenomena in the natural environment, examine them, working with various visual teaching aids,

including electronic ones.

The main units of geographical knowledge are concepts about geographical objects and phenomena and their figurative representations, the process of formation of which is carried out simultaneously.

The content of school geography presents general and individual concepts. General concepts do not have their own geographical names, but individual concepts have their own geographical names. The formation of concepts is carried out inductively (from the particular to the general) and deductively (from the general to the particular) through cognition. The main indicators of mastering a concept are: knowledge of its definition, the ability to identify the essential distinctive features of the concept being studied, to have a figurative idea of the studied geographical object or phenomenon, to be able to apply knowledge about the studied concept when solving new cognitive problems.

A representation is a visual image of a previously perceived geographical object or phenomenon. As a result of direct observation of geographical objects or phenomena, memory representations are formed. Representations of the imagination are formed by productive imagination without direct observation of the objects or phenomena being studied [6] .

When studying geography, schoolchildren form generalized, individual, spatial, cartographic representations and representations as a result of graphic interpretation of the content of school geography courses in the form of diagrams, tables, graphs, diagrams, profiles, etc.

Literature list:

1. Ananyev B.G. Formirovaniye odarennosti // Sklonnosti i odarennost. -M., 1962.-S.13-19.
2. Baranov S.P. Chuvstvennыy opit v razvitii shkolnika // Razvitiye lichnosti shkolnika v prosesse obucheniya. Mejvuzovskiy sbornik nauchnыx trudov. M., 1996. - S.3-10.
3. Davidov V.V. Teoriya razvivayushyego obucheniya. M.: Intor, 1996. - 544 s.
4. Galay I.P. i dr. Geografiya v 6 klasse : ucheb.-metod. posobiye / I.P. Galay, V.I. Galay, J.M. Yakubovich – Minsk : Narodnaya asveta, 2000. – 215 s.
5. Galperin P.Ya. Metodi obucheniya i umstvennoye razvitiye rebenka. M.: MGU, 1985.-44 s.
6. Ispolzovaniye sredstv obucheniya v prepodavanii geografii / Yu.G. Barûsheva, M.B. Vestiskiy, T.V. Grigoryeva [i dr.]; / pod red. Yu.G. Barûshevoy. – M. : Prosveùyeniye, 1989. – 150 s.
7. Ivanov Yu.A. Praktikum po metodike prepodavaniya geografii: uchebno-metodicheskoye posobiye / Yu.A. Ivanov. Brest. gos. un-t imeni A.S. Pushkina. – Brest: BrGU, 2011. – 171 s.
8. Maxmudov M.I. Razvitiye poznovatelnoy aktivnosti i samostoyatelnosti uchaxshixsya. Kazan, Tatarskoye knijnoye izdatelstvo, 1963. 80 str.
9. Metodika obucheniya geografii v sredney shkole / pod red. L.M.Pancheshnikovoy. M. : 1983. – 320 s.
10. Musayev J. Geografik timsol – mustaqil fikrlashga undovchi vosita sifatida//«Xalq ta'limi» jurnali 2003 yil, 1-son.
11. Musayev P., Musayev J. Geografiya. (O'zbekistonning iqtisodiy va ijtimoiy geografiyasi). 8-sinf o'quvchilari uchun darslik. T.: "Sharq", 2006. 160 b.