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Svazek XLII mezinárodní kolektivní monografie obsahuje publikace o: utváření a rozvoji teorie a historie veřejné správy; formování regionální správy a místní samosprávy; provádění ústavního a mezinárodního práva; finance, bankovnictví a pojišťovnictví; duševní rozvoj osobnosti; rysy lexikálních výrazových prostředků imperativní sémantiky atd.

Materiály jsou předkládány v autorském vydání. Autoři odpovídají za obsah a pravopis materiálů.

OBSAH

*§2.4 PSYCHOLOGICAL AND PEDAGOGICAL ASPECTS OF FORMATION OF GEOGRAPHICAL CONCEPTS IN THE SCHOOL GEOGRAPHY COURSE (***Nepsha O.**, Bogdan Khmelnitsky Melitopol State Pedagogical University)

Introduction. The basis of teaching geography is the process of forming scientific geographical concepts in students. Concepts are the basis of geographical knowledge. The process of their formation has a number of peculiarities that need to be taken into account in teaching geography.

The most important of these features is that concepts cannot be learnt only by memorising their definitions [4]. A concept and its definition are fundamentally different things. In teaching geography, it is important, first of all, to ensure active cognitive activity of students and not to limit oneself to memorising verbal formulations and definitions of concepts. It is important to remember that the cognitive activity of students is always aimed at transforming the subject and is based on various sources of knowledge.

The second feature of concept formation is due to the fact that scientific concepts are a system in which some concepts are related to others. It is known that in geographical science and the system of school geography corresponding to it there is a system of fundamental, most general concepts (categories) that are interconnected and constitute the «language» of geography. These include, for example, «natural-territorial complex», «geographical shell», «component of nature», etc.

The third feature of the formation of geographical concepts is that they are not learned immediately, not at one moment, but gradually, step by step as the geographical content is studied and only in the process of logical linguistic thinking. Another extremely important point is that the process of forming

concepts is manageable, guided by the teacher and purposeful. With the help of the curriculum and textbook, the teacher selects concepts, determines the sequence of their acquisition, teaching methods, ways of consolidating and applying them in practice, outlines the stages of work, etc [1,11,12].

Presentation of the main material. Geographical concepts are a generalised form of reflection of reality, the content of which is generally determined by the essential features of geographical objects, processes and phenomena and the relations between them. The system of geographical concepts in the form of terms forms the basis of geographical education at school [7, P.86-87].

Geographical concepts, as well as all other components of education, are constantly evolving. This development takes place in two main directions. First, from perception and elementary ideas to the simplest and then more general concepts. This path is typical for the initial stage of geography (grade VI). The second direction is from general concepts to their concretisation, confirmation by specific examples, practical actions, etc. This way is more typical for more advanced courses of school geography (grades VII-X) [8].

The following provisions are of fundamental importance for understanding the psychological and pedagogical mechanisms of forming geographical concepts:

1 Any concept is not so much a cumulative result of cognitive activity as the activity itself, which ensures the formation of the concept.

2 In order to form a concept in a child, it is necessary to find and build an activity adequate to this concept.

3 The formation of scientific concepts is based on the discursive, intellectual, argumentative, thinking activity of the child, which allows him/her to master the concept in its verbal disclosure [1,5].

In accordance with the laws of logic and the nature of pupils' cognitive activity, the following two ways are characteristic of the formation of geographical concepts in pupils: inductive and deductive [7, P.89].

The inductive pathway involves the movement of cognitive activity from direct perception and observation of real objects and phenomena, first to the simplest and then to more complex concepts and generalisations. This way is primarily characteristic of the initial stages of geographical education, which involve introductory and practical work in the immediate natural environment. In general, the inductive way is the movement of thought from empirical facts, given in direct observation, perception and practical experience, to their generalisation, explanation and interpretation.

The deductive way is a movement in the opposite direction, i.e. from general concepts, from verbal definitions to their consistent specification, confirmation by examples and many individual cases of their manifestation, independent and practical work in the field, etc. This way is most suitable for geographical education of middle and high school students. The deductive way is more in line with the essence and tasks of forming theoretical generalisations and scientific and theoretical thinking in general. It requires mastering both the relevant theoretical content and the methods of activity adequate to this content.

The choice of this or that path in the actual learning process is systematically determined and is determined by a number of factors and conditions. The most significant of them include:

– the possibility of direct acquaintance of students with local natural and social objects and phenomena, which allows them to form concepts inductively on local material;

– the level of development of students' cognitive abilities in general, as well as the level of formation of such private mental actions and operations as the ability to observe, compare, analyse, generalise, classify, etc. The deductive path puts higher demands on students' abstracting activities, while the inductive path requires well-developed skills in observing, comparing, inferring and generalising;

– instructional time and its reserves, which determine the predominant use of the deductive way of forming concepts in the educational process, which requires less time. The inductive way, which involves practical work and observations on the ground by students themselves, requires much more study time than the deductive way [9,12].

Let us first dwell in more detail on the psychological aspects and methodological foundations of the process of forming geographical concepts by the inductive method.

Based on the provisions that in order to form a concept in a child, it is necessary to find and build an activity adequate to this concept, that the subject content of the concept is revealed only in the process of disclosing the conditions of its origin, that the structure of any human activity is formed by the unity of orientation, executive (working) and control components, that it is the orientation component of all activities that determines success and is responsible for the quality of its results, it is advisable to use the following scheme:

1) preliminary orientation of students in the goals, tasks and conditions of future activities, familiarisation of students with the expected results, formation of an adequate «goal image» of the activity;

2) organisation of direct observation by students of objects and phenomena of nature (or their images), their individual properties and features, performance by students of a set of intellectual and practical actions and operations that are part of the orientation basis of the activity and are aimed at transforming the object under study;

3) comparing objects and phenomena, distinguishing on this basis essential and non-essential features of the object under study, varying non-essential features while keeping essential features unchanged;

4) generalisation of the features included in the indicative basis of the activity;

5) work on the definition of the concept being formed;

6) application of the concept to solve certain real-life problems;

7) evaluation of the obtained results, correlation (comparison) of the obtained results with the initially set goals, finding out the degree of compliance of the obtained result with the planned «image-goal» (if the actual result of the activity does not correspond to the planned «image-goal», a repeated cycle of activity is carried out) [10].

The inductive way is appropriate for students to learn about various properties of objects and phenomena through their direct observation (or their certain «substitutes», i.e. models) when studying the processes of nature and society in conditions of sufficient study time. However, this way cannot ensure the solution of all the tasks related to the formation of full-fledged scientific concepts in students, disclosure of the most important cause-and-effect relationships in nature and society, formation of a comprehensive and adequate scientific picture of the world in students, development of their geographical thinking in general. These shortcomings are «removed» by deductive methods.

The formation of geographical concepts by deductive means can be schematically represented as follows:

1) setting educational tasks and creating the necessary orientation basis for future activities;

2) formulation of a verbal definition of a new concept;

3) organising students' activities to master the concept, analyse its essential features and connections that reveal the peculiarities of the origin of the object under study;

4) organising the consolidation and generalisation of the concept's features;

5) establishing logical and meaningful connections of this concept with other concepts and categories;

6) use of the formed concept to solve various educational and practical tasks [10].

At the same time, the question always inevitably arises: to what level of development should the formation of a concept be «brought» in the process of teaching students. According to psychological studies, a concept can be considered mastered if students know its definition, content and scope; are able to use it in various acts of mental activity, independently transfer it to the situation of solving certain new cognitive tasks [3,7].

In teaching geography, one should care not so much about the number of concepts formed as about the formation of basic and generalised types of cognitive activity. Moreover, the formation of the very initial concepts should be organised in such a way that it is simultaneously the formation of geographical thinking in general, the development of certain mental actions and ethical attitudes.

Undoubtedly, the formation of concepts is not limited to memorising verbal formulations of concepts, i.e. their definitions. But since any competent definition of a concept «captures» the essential features of that concept, the learning of definitions plays a major role in the development of concepts. Definitions reveal the most general, fundamentally important features of objects and phenomena, and the relationships between them. Definitions are better understood if they are subjected to special analysis or linked to visual support (for example, it is useful to combine the definition of «canyon», «river terrace» or «riverbed» with the demonstration of educational pictures, slides or diagrams).

The methodology of teaching geography distinguishes between general and individual geographical concepts [7].

General concepts are concepts that are used to think not about individual objects or phenomena, but about a whole class of homogeneous objects, phenomena or processes that have the same name, for example, «sea», «river», «hill», «geosyncline», «economic district», «city», «settlement», etc. The definition of a general concept reveals the essential features (in logic and psychology, an essential feature is a property of an object, the loss of which makes the object cease to be itself) that are common to all objects that belong to this concept, for example: «A river is a natural water flow (watercourse) that originates from a spring, lake, swamp or glacier edge and has its own natural channel» or «A platform is a large area of continental crust characterised by a relatively calm tectonic regime». General concepts form the scientific basis and «language» of all school geography courses.

The main general concepts in the programme are accompanied by the term «concept», for example: the concept of «solar radiation», the concept of «air mass», the concept of «labour resources», the concept of «urbanisation», etc. which ultimately facilitates the teacher's selection of the main content of the educational material on a given topic. On the basis of general concepts, individual geographical concepts are formed.

In the content of school geography, it is also advisable to distinguish between general concepts of objects (volcanoes, lakes, igneous rocks, enterprises, etc.) and general concepts of phenomena and processes (weather, atmospheric front, climate, level and pace of economic development, weathering, mountain formation, urbanisation, etc.) [2].

The formation of single concepts has its own additional features. Their study involves strict localisation, a certain reference to the earth's surface, to a geographical map or terrain plan. One of the essential features of unit concepts is their geographical location. In school geography courses, determining the

geographical location of the object under study is of utmost importance. That is why it is always necessary to rely on a geographical map or plan of the area when studying unit concepts. Unit concepts, as well as general concepts, are closely related to each other. Another important feature of the formation of specific concepts is that it usually takes place on the basis of general concepts. For example, the concept of the climate of Africa is preceded by the acquisition of the general concepts of climate, climate-forming factors, weather, climate zone, continent, etc. In turn, individual concepts specify general concepts, enrich them, and make them a necessary means of understanding the material under study. For their mastery, single concepts usually require a geographical map, globe or terrain plan.

Single concepts are concepts about specific objects or regions that have their own geographical name (name), for example, the Dnipro River, the Mediterranean Sea, Lake Michigan, etc. A single concept reflects both the general features of a particular concept and the features peculiar only to a given object or phenomenon, which determine its originality, its unique face. In school geography courses, many single concepts have a complex structure, representing a whole system of simpler interrelated concepts. For example, the single concept of «Ukraine» includes such narrower concepts as «geographical location of Ukraine», «inland waters of Ukraine», «relief of Ukraine», «climate of Ukraine», etc. The content of individual concepts is revealed in the process of real geographical thinking. Moreover, any concept lives its full life in the processes of real human thinking.

All concepts in the content of school geography are interconnected as a reflection of the laws of dialectical logic. There are main and subordinate concepts in the system of concepts. For example, the concept of «rocks» is the main concept in relation to the concepts of «igneous rocks», «metamorphic rocks» and «sedimentary rocks»; the concepts of «mountains» and «plains» are subordinate to

the concept of «Earth's relief» and the main concept in relation to the concepts of «lowland», «upland» and «mountains» – low, middle, high, etc.

Conclusions. The system of geographical concepts is the basis of geographical education at school. The concept as a logical category is characterised by two interdependent and mutually opposing sides – content and scope. The content is a set of essential features, the connections between which form the structure of the concept, and the scope is the number of topics and phenomena covered by this content. The effectiveness of students' learning of concepts is reflected in two forms: knowledge of concepts (which is not limited to knowledge of definitions) and their correct use in specific types of mental activity.

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