

PSYCHOLOGICAL-PEDAGOGICAL BASIS OF DEVELOPING GEOLOGICAL KNOWLEDGE IN STUDENTS

O'QUVCHILARDA GEOLOGIK BILIMLARNI RIVOJLANTIRISHNING PSIXOLOGIK-PEDAGOGIK ASOSLARI

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Annotation: This article analyzes the psychological and pedagogical aspects of the development of geological knowledge in students of future teachers of geography. In this, students studying natural geography, which mainly includes geological data, belong to the teenage age group, this age is distinguished from other age categories by high activity, strong envy for practical actions.

Annotatsiya: Ushbu maqolada bo'lajak geografiya fani o'qituvchilarini o'quvchilarda geologik bilimlarni rivojlantirishning psixologik-pedagogik jihatlari tahlil qilingan. Bunda asosan geologik ma'lumotlarni o'z ichiga olgan tabiiy geografiyani o'rganayotgan talabalar o'smirlik yosh guruhiga mansub bo'lib bu yosh yuqori faollik, amaliy harakatlar uchun kuchli xoxishi bilan boshqa yosh toifalaridan ajralib turadi.

Key words: excursion, systematic approach, minerals, geological processes, geological knowledge, pedagogical skills.

Kalit so'zlar: ekskursiya, tizimli yondashuv, foydali qazilmalar, geologik jarayonlar, geologik bilim, pedagogik mahorat.

INTRODUCTION. Geology is the unified core of the general doctrine of the Earth, allowing people to obtain objective ideas about the structure and development of our planet, information about mineral resources. It is impossible to organize modern production without using geological opportunities. Also, it is the basis for understanding planetary, regional and local geological processes that determine environmentally safe life, managing nature, implementing technical projects, and forming most of the geological skills of the geological profession. Therefore, the formation of geological skills can only be carried out through the system. To create a methodology for the formation of geological skills, it is necessary to solve a whole set of didactic tasks. For this, it is necessary to determine the basic principles and conditions for the formation of geological skills. From the experience of working in this direction, it can be concluded that a systematic approach allows you to increase the level of geological literacy.

The role of geological skills in the study of natural geography is very large and diverse. They should be considered as a component of the content of school geography, which must be studied. The formed geological skills become a means of mastering geographical knowledge and carry out independent cognitive activity.

LITERATURE ANALYSIS AND METHODS

In the methodological, pedagogical, psychological literature, there is no single interpretation of the concepts of skill and competence, their compatibility with each other. There are several approaches to defining these concepts by different scientists. Competence is manifested in activity. In the science of pedagogy, there are different definitions of the concept of pedagogical competence: pedagogical competence is a high level of pedagogical activity, which is manifested in the teacher's ability to achieve optimal results within a given time.

Pedagogical competence is a synthesis of the quality of work and characteristics of a person, which determines the knowledge of the pedagogical process, the ability to organize it, the ability to set it in motion, the high efficiency of the pedagogical process [1]. "Pedagogical competence" is a characteristic that determines the personal and professional qualities (knowledge, ingenuity, dedication, creativity, ability, etc.) of teachers, and is an activity that provides teachers with the opportunity to achieve a high level in their educational activities and constantly improve their professional skills [2].

According to Russian scientist N. F. Talzina, skill is a system of human actions that are interconnected by certain relationships and aimed at solving specific tasks [3].

Based on the above considerations, the concept of "pedagogical skill" can be generalized as follows: Pedagogical skill is the organization of all forms of the educational process in the most convenient and effective way, directing them towards the goals of personal development, forming worldview abilities in students (pupils), instilling a tendency to activities necessary for society.

Geography is studied more by students who are naturally active, striving for practical actions, are interested in walking, and nature. Consequently, teaching geology has great potential for developing students' educational and cognitive activities, based on the specific characteristics of the subject, the age and psychological characteristics of schoolchildren.

In the process of forming geological skills, students are involved in various types of activities. For example: cognitive, practical, research, etc. The specific features of the subject of geology allow strengthening the activity component of geographical education. In strategic planning for the organization of pedagogical influence on the child's personality, his age characteristics are of great importance [4]. Students studying natural geography, which includes geological information, belong to the teenage age group. This age is distinguished from other age categories by high activity, a strong desire for practical actions. As noted in the

works of psychologists, students of this age have high research activity and are ready to independently regulate their activities. At this age, schoolchildren have an increased interest in studying nature, they willingly participate in walks, excursions, and conduct experiments. During this period, special attention can be paid to the organization of research and practical work, as well as the development of game activities. Also, the age of students studying natural geography is very suitable for the formation of skills based on practical and independent activity. These characteristics of adolescents should be taken into account when forming geological skills in school geography lessons.

RESULTS AND DISCUSSION

In a comprehensive solution to the problem of forming geological skills by students, stimulating their activity is of great importance. The main factors of motivating students to study are motivation and cognitive interest. A. N. Leontiev considers the motive to be the basis for the development and change of relationships. The activity of schoolchildren is based on certain motives, and relationships develop on their basis.

The content of geography includes objective opportunities for awakening cognitive and other needs, educational motives. The course of natural geography in particular has rich opportunities for stimulating the cognitive activity of schoolchildren, since it reveals in its content a colorful picture of the world, including the nature of the planet, human economic activity in different parts of the Earth. In the study of geological knowledge, it helps to study the causes of destructive earthquakes, analyze the history and development of the Earth, and understand the diversity of minerals and rocks [5].

Cognitive interest and its impact on student activity and personality are widely discussed in psychological and pedagogical literature as a stability of personality. In these works, it is emphasized that the impact of cognitive interest is very ambiguous: it acts as a motive and a learning tool. The formation and development of cognitive interest occurs during activity. Cognitive interest

activates the activity itself. Therefore, educational activity should be organized in such a way as to lead to this active state. Great opportunities for activating students are experiments, practical work, excursions and other research work. The development of students' cognitive activity depends on how well the teacher is able to teach students rational methods of mental actions (analysis, generalization) and practical activities (reading and comparing maps, analyzing diagrams, etc.). Forms of organizing educational activities can also serve as a motive in the process of forming geological skills. Conferences, seminars and excursions are especially important in the practice of teaching natural geography.

One of the features of the formation of geological skills is the mandatory conduct of excursions (practical work on the ground). Geological excursions are an integral part of the educational process. During their conduct, students encounter the features of the geological structure of their region, they get acquainted with various geological phenomena, relief forms, learn to understand the history of the formation of the earth's interior.

An important role in the formation of geological skills is played by the organization of educational activities of schoolchildren with various sources of geographical information: maps, aerospace images, handouts, textbooks and manuals.

Conclusion

In conclusion, it is good for future teachers to follow a systematic approach in the formation and development of a system of geological knowledge in students. An indicator of the mastery of any set of scientific knowledge by a person is their consistency. Only consistent, systematic knowledge and skills serve as the basis for mastering the ideas and laws of the studied science. Only systematic geological knowledge ensures the understanding and mastery by students of the laws of the development and evolution of the Earth, the place and role of the lithosphere component in the development and formation of natural complexes, the importance of subsoil resources in human life, and the formation of principles for the rational

use of subsoil resources.

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