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THEORETICAL CONDITIONS FOR THE FORMATION OF COGNITIVE COMPETENCE OF SECONDARY SCHOOL STUDENTS

Olimov X. A.
Biology Teacher at the Academic Lyceum of the Tashkent Pharmaceutical Institute

ANNOTATION

This article presents opinions and judgments on the analysis of the results of the research conducted to clarify the theoretical conditions for the formation of cognitive competence of students. The research conducted within the framework of biological education is aimed at identifying the effectiveness and specificity of methodological approaches in modern informative society and the education system.

Keywords: cognitive competence, pedagogical approaches, analysis, reproductive methods, productive methods.

INTRODUCTION

Teaching biology in an educational institution includes systematic work on improving students' natural literacy, forming their practical skills, which is closely related to their cognitive potential and is an important problem of modern education. The effective implementation of the school's natural science education system has a significant impact on the natural literacy of graduates, their ability to solve life problems, environmental literacy and culture, and the formation of scientific knowledge, practical skills, social, economic, ecological, and national values. The globalization of environmental problems at the world level also requires special attention to be paid to the teaching of natural sciences.

In order to solve the problems in this direction, the transition to competence-based education is being implemented, the methods, approaches and technologies of teaching natural sciences are changing based on the needs of the times. Aspects of individualization and integration of teaching and learning of natural sciences are being strengthened. Biology programs, textbooks, educational components are regularly changed and updated in general educational institutions. In this direction, there are still many reforms to be carried out, scientific and theoretical approaches to the principles of teaching, clarification of the purpose of teaching, improvement of the content and methods of teaching, use of innovative forms of activity, modern tools and teaching methods, new monitoring of education. it is required to implement comprehensive measures such as organizing, evaluating the work results of teachers from the point of view of activating the cognitive activity of schoolchildren.

The innovative aspect is related to the technological side of education, the "skill" of organizing the educational process for the practical mastery of biological science. In this direction, the successful organization of educational activities of general education school students, the introduction of innovative methods and tools in the teaching of biology, the formation of natural scientific awareness, practical and communicative competences of school students, their independent activities, communication, including socio-cultural, educational cognitive skills are closely related. In the second half of the last century, the active development of the theoretical foundations of the activation of the cognitive activity of high school students in the study of

biology was carried out with the participation of well-known Western Methodist scientists (first in the USA, then in Europe).

Although thinking processes have always been the focus of attention of Methodist scientists, since the end of the 20th century, the terms "cognitive direction", "cognitive research", "cognitive approach" have been put forward in the field of education. Psychologist L. S. Vygotsky conducted research on the speech aspects of the educational process. Another famous scientist A. N. Leontiev developed the concept of conscious behavior and mental activity and clarified the mechanisms of its implementation. P. Ya. Halperin put forward the theory of the gradual formation of mental activities. In his studies, M.Kh. Bekmirzayev improved the structure, content, functions, principles, stages, criteria and mechanisms of the comprehensive use of educational forms and technologies in zoology lessons by implementing the experience of foreign countries [1]. Kuychiyeva M.A. in their research, they approached the process of developing the professional-methodical training of future biology teachers based on the classification of organizational and communication factors affecting independent learning, summarizing algorithmic tasks that integrate the stages of modular education into adaptive and reproductive learning [2]. M.H. Raupova worked on the organizational-pedagogical aspects of improving the quasi-professional training of future biology teachers to ensure the compatibility of the components of professional development, such as innovative experience and individual personal quality, with respect to comparative motivational determinants and efficiency vector optimization [3].

A.Q.Rakhmatullayeva improved the model of determining students' talent in the process of teaching biology in secondary schools based on the optimization of the integrative-diagnostic criteria such as dimensions, individual orientation, objective monitoring principles such as openness, transparency and mobile-creativity. In R.U. Umarova's dissertation, the model of development of intellectual potential in the conditions of informed education made approaches to the application of algorithmic cases that activate digital knowledge according to the comparative levels of integration of subjects in the cognitive activity of students [4]. D.T. Yakhshiboyeva worked on the development of creative thinking ability, activity, initiative, independence, reflexivity, creativity, practical assignments and giving priority to computer programs and mobile technologies in the field of biotechnology during the independent educational activities of future biology teachers [5]. U.M.Imomova worked on linguistic and didactic conditions for the formation of students' cognitive competencies, activation of students' cognitive activity and independence, use of intensive methods and methods, formation of students' educational experience and independent knowledge acquisition competencies in the educational process [6].

O. V. Berezhnaya in his dissertation work developed the methodology of forming research skills in students based on cognitive activity, the system of tasks aimed at developing students' research competences [7]. N.B. Lukyanova in her scientific activity developed a methodological system that allows to develop the ability to distinguish the important characteristics of biological objects, give definitions of simple biological concepts and apply concepts in solving practical problems using a complex combination of lessons, home, extracurricular and excursion activities. and tested [8]. Yu.A. Tikhomirova

He developed the structure and functions of the network educational-methodological complex for distance learning of biology and determined the methods of interaction between students and teachers in working with it [9].

The addition of pedagogical thought to the cognitive direction, due to the positive influence of the achievements of cognitive pedagogy and psychology, a solid foundation of the psychological concept was formed. Thus, an objective picture has emerged that allows us to determine the importance of the cognitive-mental approach in teaching subjects, taking into account the knowledge of laws and phenomena, the development of technology for its mastery, and the implementation of intercultural communication of communication participants. It is important to activate students' thinking ability, create an environment of mental understanding and understanding, and develop practical skills [10].

General education includes the processes of activating the cognitive-mental activity of schoolchildren in the teaching of biology, clearly understanding and analyzing new terms and materials, transferring the acquired knowledge to working memory, and being able to explain, apply and use knowledge.

One of the important stages is to understand new information, interpret terms, interpret laws, process it, store it in memory depending on the level of complexity of the material. This is where the law of intelligently modifying information based on students' experience, intuition, and cognitive skills comes into play.

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