

ASPECTS OF USE OF INTERACTIVE EDUCATIONAL TECHNOLOGIES IN TEACHING SUBJECTS OF THE CLASS OF MAMMALS

Almat Ishanov

*Researcher of Karakalpak State University
named after Berdak*

Abstract. Aspects of the use of interactive educational technologies that allow to increase educational efficiency in the course of teaching the topics of the zoology class of mammals of future biology teachers studying in higher educational institutions are highlighted.

Key words: interactive educational technologies, vertebrate zoology, systematics, mammals, insectivores, invertebrates.

To improve the professional competence of future teachers along with pedagogues engaged in pedagogical activities in world scientific and research institutions, to systematically organize their pedagogical activities based on innovative approaches, to prioritize the process of effective implementation of interactive educational technologies for the development of professional skills is viewed from the point of view. In particular, for the purpose of forming and developing the innovative activities of future teachers, the ability to think creatively, to continuously work independently on oneself, the conditions for independent education, to objectively analyze one's own achievements and shortcomings Extensive practical research is being organized to develop skills. In countries such as Great Britain, China, Russia, the USA, Germany, Korea, the innovative activity of students has been established as a mandatory component of pedagogical activity in order to constantly develop the innovative activity of students.

In recent years, in the education system of our country, many scientific and research works have been carried out to improve the professional and methodological training of future teachers based on foreign experiences. In particular, the possibilities of improving the methodology of teaching biology based on advanced foreign scientific researches, applying innovative educational technologies in the field of biological science, and effectively using information and communication technological educational resources in the educational process, A. Gofurov , J. Tolipova, I. Azimov, U. Rakhmatov, S. Fayzullaev, M. Koychiyeva and other

specialists' research can be cited as an example. Also, J. Azimov, O. Mavlonov, S. Dadayev, K. Saparov, M. Jumanov, Ya. Ametov were effective in improving the scientific and theoretical foundations of teaching zoology.

In the course of studying zoology, to activate the cognitive activity of students, to properly organize cognitive independence, to determine to what extent the acquired knowledge, skills and qualifications have been developed based on the subject content of the credit-module system, and to systematize them. , monitoring and evaluation of acquired knowledge, skills and abilities on a new topic, as well as effective use of interactive educational technologies in the process of learning a new topic, is one of the urgent issues of today.

In order for the future biology teacher to effectively use the interactive educational technologies used during his future pedagogical activities in the process of organizing zoology lessons, in addition to fully mastering the content of zoology, interactive educational technologies and their characteristics, should have formed and developed methodological aspects of using this educational technology.

Interactive educational technologies used in the educational process are of great importance in the situations of modeling of life processes, use of didactic game exercises, solving existing problems based on the establishment of mutual cooperation. Teaching based on the principles of interactivity, in addition to forming a high level of activity, creativity, and independence from students in the process of mastering the learned knowledge, makes it possible to fully achieve educational goals in the process of teaching.

In the process of teaching zoology, like all subjects, interactive educational technologies and active methods that serve to actively organize the educational and cognitive activities of students and increase the effectiveness of education include the following "SWOT-analysis", "Concept analysis", "Assessment", "Sinquain", "Case-study", "6x6x6", "Brainstorming", "Venn diagram", "Problem situation", "How-hierarchical diagram" can be included. Future biology teachers should be able to distinguish the types of interactive educational technologies and active methods used during the organization of all forms of teaching, based on the content of the subject being mastered, which are suitable for learning this subject. Based on the above comments, we will focus on the methodology of using some interactive educational technologies and methods used in the teaching of zoology.

SWOT analysis. The main idea of this method in educational practice is to determine the solution to the existing problems by analyzing and comparing the acquired

theoretical knowledge and experiences of a practical nature, to strengthen the acquired knowledge, and to evaluate the obtained results, to develop independent, critical and creative thinking. formation of skills is considered.

S - (strength) - strong aspects. W - (weakness) - weak aspects.

O - (opportunitu) - opportunities. T - (tnreat) - existing obstacles.

As an example, in the process of conservation and protection of mammal species included in the Red Book of Uzbekistan, list the strengths and weaknesses, internal opportunities, and external risks that hinder their preservation in this table (Table 1).

Table 1

S	Strengths of conservation and protection of mammal species included in the Red Book of Uzbekistan	The preservation of rare and endangered species of mammals in Uzbekistan is achieved
W	Weaknesses of conservation and protection of mammal species included in the Red Book of Uzbekistan	Slowdown of special scientific research on preservation of rare and endangered species of mammals in Uzbekistan
O	Possibilities of preservation and protection of mammal species included in the Red Book of Uzbekistan	Organization of campaign work among the general public on preservation of rare and endangered species of mammals in Uzbekistan, formation of scientific imagination
T	Barriers (external)	Species breeding and high levels of illegal hunting by the population

Assessment. As a result of the use of this method in the process of teaching zoology, it is possible to assess, control, and form practical skills of students' mastery of science subjects. This process focuses on direct testing, practical skills, problem situations, comparative analysis, and symptom identification.

In particular, it is recommended to use the assessment on the topic "Brief description of the main groups of infraclasses Placentalia" from the textbook of vertebrate zoology. It is desirable to evaluate up to 5 points for the correct answer in each box given by students (Table 2).

Table 2

<p>Test</p> <p>Determine how many satellite subclasses there are.</p> <p>A) 5-6 B) 22-23 C) 17-18 D) 11-12</p>	<p>Comparative analysis</p> <p>Compare and contrast the differences between the order Insectivores and Invertebrates?</p>
<p>Symptom</p> <p>The system of satellite subclasses...</p>	<p>Practical skills</p> <p>List 3 families and the species belonging to the families belonging to the order Insectivores and Invertebrates?</p>

The use of the "Analysis of Concepts" method in zoology classes in order to systematize and ensure the stability of the knowledge acquired by students in zoology is of great practical importance in pedagogical higher education organizations.

Concept analysis. Since there are a lot of concepts in zoology classes, in the process of mastering these concepts, they are used to determine the level of students' mastery of basic concepts, to independently check and evaluate their knowledge of zoology. In particular, the use in the study of "Systematics of the Class of Mammals" topics from vertebrate zoology gives high results, the application of the method is given in Table 3 below.

Table 3

Basic concepts of the subject	This is what you think what is the concept means?	Information provided in addition to the basic concepts provided
Prototheria		First of all, carnivores
Monotremata		One-holed, that is, cloacal
Theria		Real carnivores
Metatheria		Bottom carnivores
Placentalia		Companions

By assigning this type of tasks in zoology classes, students take an important place in the process of learning the Latin (scientific) names of terms.

Summary. In the process of improving the knowledge of zoology of the future biology teachers studying in higher education institutions, every professor-teacher

should use interactive educational technologies as much as possible in the design of the training during his pedagogical activity. and, as a result, prepares the ground for the formation and development of high-level knowledge, skills, qualifications and competencies.

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