EUROPEAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND MANAGEMENT STUDIES

VOLUME03 ISSUE12
DOI: https://doi.org/10.55640/eijmrms-03-12-06 Pages: 27-32

PEDAGOGICAL PSYCHOLOGICAL SIGNIFICANCE OF TEACHING MEDICAL BIOLOGY IN HIGHER MEDICAL EDUCATIONAL INSTITUTIONS

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ABOUT ARTICLE

Key words: Methodology of teaching, educational institutions, higher education, teaching model.

Received: 27.11.2023
Accepted: 02.12.2023
Published: 07.12.2023

Abstract: Relevance of the topic Digital educational resources for teaching medical biology, innovative technologies for improving the quality and efficiency of education are being put into practice in higher educational institutions of the world. The implementation of innovative ideas in the field of education, the acquisition of knowledge about land and underwater resources in the fields of genetic engineering, nucleic acid studies, bioinformatics and biotechnology, the study and treatment of the biology of diseases occurring in living organisms, biodiversity systematic work is being carried out on the implementation of large-scale projects on research, modernization of the system of training of biologists-specialists in the field.

INTRODUCTION

The purpose and tasks of the research are to develop recommendations for improving the teaching methodology of medical biology in higher education institutions.

Tasks of the research:

analysis of the pedagogical and psychological possibilities of improving the teaching methodology of medical biology in higher education institutions;

improvement of teaching methods of medical biology in higher education institutions;

improvement of the teaching model of medical biology in higher education institutions;

improving the criteria for increasing the effectiveness of teaching medical biology in higher education institutions.

The object of the study was to improve the methodology of teaching medical biology in higher medical educational institutions, and 341 students of the Tashkent Medical Academy, Samarkand State Medical University, and the Termiz branch of the Tashkent Medical Academy participated. The subject of the research is the forms, methods and means of improving the teaching methodology of medical biology in higher education institutions.

METHODS

Comparative and critical study and analysis of scientific, methodical, electronic resources related to the topic of research, study of advanced pedagogical experiences in medical higher education institutions, questionnaire, interview, observation, test, design, expert assessment; mathematical-statistical analysis methods were used for the results of experimental work.

The scientific novelty of the research is as follows:

the pedagogical possibilities of the teaching methodology of medical biology have been improved based on motivational-value, cognitive-active, personal-reflexive criteria and functionalization of the components of active information exchange, design activities in the electronic environment, and the use of interactive software tools;

The teaching method of medical biology in higher education institutions is to gradually teach the elements of organized, goal-oriented, logical-structural, diagnostic-resultative independent education and the mutual harmony of the capabilities and interests of learners. improved based on provision;

The teaching model of medical biology in higher education institutions is improved based on the gradual improvement of students' talents, abilities and interests, as well as the mutual adaptation of the possibilities of using interactive software tools, interactive resources, multimedia products, virtual laboratories, crosswords, intellectual games. ;

criteria for the development of pedagogical professional training skills have been improved based on didactic design of explanatory-motivational, cognitive, technological, creativity and interactive presentations in the use of software tools, teaching motivation.

RESULTS

Practical results of the study:

For the students of the Medical University - 60910200, Pediatrics - 60910300, aimed at improving the pedagogical possibilities of teaching medical biology in higher educational institutions

This study guide entitled "Medical biology, general genetics" (cytology section) (Order No. 68 of the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan dated March 27, 2023) was created;

Recommendations on improving the teaching methodology of medical biology in higher education institutions have been developed.

Scientific and practical significance of research results

The scientific significance of the research is the development of students' skills in using interactive tools based on the forms and technologies of improving the teaching methodology of medical biology in higher education institutions, the development of their information competence, the teaching methodology aimed at using interactive software tools based on virtual laboratory technologies. It is explained by the fact that it was used in the improvement of its content and technological basis.

The practical significance of the research results is that the electronic resource created in order to improve the teaching methodology of medical biology in higher education institutions serves to strengthen the methodological support of the teaching methodology of medical biology, the State Education for the preparation of bachelors and masters in higher education standards are based on the fact that they are embedded in the content of qualification requirements.

Ensuring the efficiency of the process of improving the teaching methodology of medical biology in medical institutions of higher education, using pedagogical technologies in the process of teaching medical biology, the possibilities of the information-educational environment in improving the quality of education, teaching students about medical biology using interactive tools preparation for use is considered one of the main tasks of today.

Modern information and communication technologies create opportunities to optimize processes such as creation, storage, delivery, search of interactive software tools. The use of interactive software tools in educational practice is carried out in accordance with the content goals and objectives.

See Table 1.

The content of improving the teaching methodology of medical biology in higher education institutions

The goal of improving the teaching methodology of medical biology in higher education institutions	
Development of a mechanism for effective use in the practice of improving the teaching methodology of medical biology in higher education institutions	Creation of an information system of the teaching process of medical biology, organization of a management system based on pedagogical technologies, interactive methods
Tasks in improving the teaching methodology of medical biology in higher education institutions	
creation of e-learning resources, didactic aspects necessary for implementation in the educational process (material and technical base)	Creation and application of methodological support of new informational pedagogical technologies for the educational process of medical biology
teaching students the skills of working with pedagogical technologies, interactive methods, developing their professional-pedagogical competencies	Improving the effectiveness of the medical biology education process and expanding opportunities for continuous education

Interactive technologies are based on the direct interaction of students with the educational environment. Their experience serves as a central activator of learning.

The basis of the modern education system is a high-quality and high-tech environment. Its creation and development are technically complex, but such an environment serves to improve the educational system and introduce information and communication technologies in education. Currently, various pedagogical information-educational resources have been created in electronic form in educational institutions, but the research on creating the organizational basis of their use cannot be considered sufficient.

Today, all higher education institutions pay special attention to the use of innovative technologies in the educational environment in order to ensure that students receive knowledge in accordance with modern requirements.

There are several views on the classification of technologies used in the educational system today. Authors M.G. Saveleva, T.A. Novikova, N.M. Costinas conditionally divide all educational technologies into traditional, classic and modern types, depending on the level of activity of students in their educational activities. Traditional technologies, in turn, are reproductive and active, and the group of modern technologies is divided into interactive groups.

In the cooperative activity of a reproductive teacher and a student, the teacher is the person in the main activity and the manager of the training. The student acts as a passive listener. Feedback between the participants of the educational process is carried out on the basis of surveys, independent, control work, tests, etc. Passive technologies are considered very ineffective in terms of pedagogical technologies and students' mastery of learning material, but it also has some recognized aspects. This is an opportunity for the teacher to facilitate the preparation for the lesson and to give the student a large amount of educational material in a short time during the lesson.

When the teacher and student engage in active communication during the lesson, the student becomes an active participant in the lesson, not a passive listener. Interactive interaction encourages students to engage in group conversation and communication. In contrast to active influence, interactivity in them is directed not only to teachers, but also to the interaction of students with each other. In this case, the teacher performs the role of the organizer of the flow of information without transmitting educational information through him. In such cases, student experience plays an important role.

Interactive educational technologies, different from reproductive ones, require the organization of teaching on the basis of effective creative activity. Each of them essentially emerges as a means of managing the process of developing cognitive activity. In the system of active technologies, problem situations are analyzed and solved by the teacher and the student in cooperation. During the use of interactive technologies, the solution to the problem (in the process of situation analysis and game design) is solved collectively by the teacher with the active participation of the group members. Active technology provides interactivity if the entire audience is involved in solving the problem.

CONCLUSION

In conclusion, the main concept of interactive methods among students: achieving active exchange and assimilation of information using problem situations, interactive communication creates an opportunity for intellectual development, exchange of communicative roles between the transmitter and receiver of information through the provision of feedback, control of knowledge among students it is characterized by the development of skills and abilities to apply the acquired knowledge in practice

and specific situations, to get acquainted with world educational resources and to work with the database.

It is important to organize education through interactive methods that require various subjective activities to further improve students' ability to abstract thinking, logical thinking, critical evaluation, and comparative analysis in medical biology classes.

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