

# **INNOVATIVE TRENDS OF SCIENCE AND PRACTICE, TASKS AND WAYS TO SOLVE THEM**

Proceedings of the XXV International Scientific and Practical Conference

Athens, Greece  
June 28 – July 01, 2022

## **ADAPTIVE QUARANTINE: INNOVATIVE PEDAGOGICAL TECHNOLOGIES IN THE MEDICAL EDUCATIONAL PROCESS**

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**Background.** At the present stage of modernization of higher education of Ukraine is to ensure the quality of training of specialists at the level of international standards. This problem can be solved if the conditions for the students to realize their intellectual potential are created on the basis of the introduction of innovative pedagogical technologies in the educational process, a significant increase in the efficiency of the educational process, individualization of learning, continuous activity and the teacher, and each student.

Objective was consisted in summarizing the experience of introducing innovative technologies and interactive methods of teaching histology in classes and distance training of students of the medical university.

**Results.** Literary data and own pedagogical experience make it possible to determine the Student's educational activity at a lecture on fundamental disciplines involves the formation of clear logical ideas, the ability to identify key points in solving problems. It should be emphasized that the presentation of the audio lecture presentation of fundamental medical and biological knowledge in the process of distance is not able to carry out the required level of feedback of the teacher and the student. Therefore, distance learning is of great importance in the combination of listening to the teacher's speech and, if students have notes of the lecture material, encourages the teacher to search for various methods of visibility and activate the independent activities of students in acquiring practical skills.

Our research of periodic literary sources and our accumulated pedagogical experience allows us to emphasize that the foreground in modern approaches to studying in higher medical school should be a practical component of the acquired knowledge on the basis of innovative methods of teaching basic medical and biological disciplines, as well as a high level of interest and involvement of students in independent work and motivation of students for their further continuous development. We have identified a problem that in the initial courses students need the help of a teacher to comprehend the excessive amount of information available to them.

Motivational learning is by nature a developmental learning: firstly, it is the development of information retrieval skills, its analysis and processing; secondly – development of skills of independent work of students; Thirdly, the development of professional competencies. Students should first of all learn in the process of activity and individually find meanings regarding their awareness of the importance of the role of fundamental knowledge for the future profession of a doctor. Since the lecture remains the main and leading method of teaching, then from a practical point of view, in terms of the priorities of the Law of Ukraine on Higher Education (2014), an important key aspect should be the qualitative assimilation of the information material presented on the basis of in-depth scientific and motivational generalization with a focus on the formation of professional competence and the development of the creative personality, which is necessary in the context of market relation.

Organization of training includes modeling of real situations, the use of game elements and discussions, joint problem solving based on an analysis of circumstances and the corresponding situation. During group training, students learn to think constructively, make informed decisions, develop the ability to persuade and discuss.

We must note, that the main task of fundamental discipline - histology is not to study pathological changes in organs, but first of all to understand the functional characteristics of normal structures, that allow the student to diagnose their possible changes. At the present stage, it is important to justify the role of the traditional educational method for the diagnosis of histological preparations in the formation of practical skills and the development of students' clinical thinking primary courses and it is imperative to introduce innovative methods to optimize vocation training.

Our practical training was conducted in classrooms at the Department of Histology and Embryology of the O.O. Bogomolets Medical University.

The studying of cytology, embryology, general and special histology by medical students of 1 and 2 courses was carried out. At each stage, on the basis of the research method, we gradually introduced into the educational process data of scientific fundamental research through interactive communication, multimedia interpretation by students of previous fundamental knowledge and their acquired skills to compare and distinguish and skills, to rely on existing conceptual frameworks of knowledge, to interpret histological structures under normal conditions and under conditions of pathological changes. we developed at the steps for diagnostic analysis of histological drugs in the form of a multimedia presentation through the organization of ZOOM - conference including two steps. During the conversation, the teacher directs the activities of students to consolidate the theory and practical skills. It should be emphasized that the obligatory element of discussion is ultrastructural, histochemical, functional characteristics of histological structures. In this process, discussions and setting up problematic issues (situations) are envisaged. To this stage of practical training according to the methodology, it is envisaged to prepare in the following sequence: 1) the student performs his homework – gives answers to the questions posed by the teacher 2) the initial independent study by the student of histological s in the fpesimentsorm of micrograph in the atlas 3) the student forms a picture in his album and determines the structures. At the first stage (ZOOM-1), each student participates in the process of discussing multimedia presentations, and the teacher provides the

necessary explanations for the formation of the ability to apply knowledge in the diagnosis of histological structures of the norm and interpret possible manifestations of pathological changes using information about COVID-19. 1) If the organ is studied, then first it is necessary to determine its place in the functional system of the body, and provide a general characteristic (origin, determine the general plan of its structure, show parts or shells, identify diagnostic signs; 2) detailed histological analysis of structures and their functional properties is provided. 3) Each histological is studied in two stages. At the first stage, the student learns to "read" the micropreparation and form its "visual image" normally and acquires the ability to diagnose possible changes in the normal structure. At the second (ZOOM-2), the teacher and monitors have the acquisition and consolidation of practical skills in diagnostic analysis of histological specimen. 1) The teacher shows students for pattern recognition, electrograms and multimedia presentations of those micrographs that were presented to students for the formation of drawings. 2) Each student presents his drawings in albums and gives their characteristics. 3) The teacher and students analyze the activity of each student. 4) Conclusions are made by the teacher and determines the assessment (the number of points, taking into account the student's activity at all stages of the class and the results of the control test on Likar – NMU platform scientific and motivational generalization with a focus on the formation of professional competence and the development of the creative personality, which is necessary in the context of market relations. the presentation of the audio lecture presentation of fundamental medical and biological knowledge in the process of distance learning is not able to carry out the required level of feedback from the teacher and the student. the organization of ZOOM-conference including two steps. During the conversation, the teacher directs the activities of students to consolidate the theory and practical skills. It should be emphasized that the obligatory element of discussion is ultrastructural, histochemical, functional characteristics of histological structures. In this process, discussions and setting up problematic issues (situations) are envisaged. To this stage of practical training according to the methodology, it is envisaged to prepare in the following sequence: 1) the student performs his homework – gives answers to the questions posed by the teacher; 2) the initial independent study by the student of histological s in the fpesimentsorm of micrograph in the atlas; 3) the student forms a picture in his album and determines the structures. At the first stage (ZOOM-1), each student participates in the process of discussing multimedia presentations, and the teacher provides the necessary explanations for the formation of the ability to apply knowledge in the diagnosis of histological structures of the norm and interpret possible manifestations of pathological changes using information about COVID-19. 1) If the organ is studied, then first it is necessary to determine its place in the functional system of the body, and provide a general characteristic (origin, determine the general plan of its structure, show parts or shells, identify diagnostic signs; 2) detailed histological analysis of structures and their functional properties is provided. 3) Each histological is studied in two stages. At the first stage, the student learns to "read" the micropreparation and form its "visual image" normally and acquires the ability to diagnose possible changes in the normal structure. At the second (ZOOM-2), the teacher and monitors have the acquisition and consolidation of practical skills in diagnostic analysis of histological

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**Conclusionis.** Taking into account the fact that training in a medical university is associated with almost the largest amount of diverse information on the assimilation of knowledge and their application in diagnostic and therapeutic process and to emphasize that this amount of information is constantly updated and reviewed, which requires and encourages future doctors to continuously develop scientifically.

In our opinion, a differentiated approach to the use of information and communication technologies allows us to expand the availability of training and improve the progress to learn and improve. The advantages of PBL (problem-based-learning) and the features of some methods for the possible introduction of this innovative technology in the medical education of Ukraine are revealed.