

APPLICATION OF KNOWLEDGE FOR THE DEVELOPMENT OF SCIENCE

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MEDICAL EDUCATION IN UKRAINE: FORMATION OF CREATIVE ACTIVITIES AMONG STUDENTS OF 1-2 COURSES

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Background. Compared with other types of human activities and the corresponding systems, knowledge in medicine is related not with the largest amount of diverse information on assimilation and application in the diagnostic and therapeutic process. It should be comprehended that this volume of information is being constantly updated and revised, which requires continuity of the post-graduate study process. Histology is very important for the first-second year students to have a clear knowledge of normal structures and arrangement of cells in a specific human tissues and organs. So that, their basic foundation will be clear to deal with the third -fourth year subject pathology which deals with abnormal tissues in organs. With their views, modifications can be made in teaching curriculum for better utilization of practical hours and to increase the interest and involvement of the students in histology. (*Perception of Students on Histology Learning Method*. DOI: 10.9790/0853-1806081118).

Objective is improving the quality of teaching histology with better utilization of practical hours and active participation of students in the classroom.

Results. Discussion of the object under study (cells or tissue or organ) is carried out from general to partial, with an emphasis on the integrity and relationship of structure and function. During the conversation, the teacher directs the activities of students to consolidate the theory and practical skills. Determining the state of self-study skills formation in junior students gives an opportunity to reveal the level of

students' preliminary preparation for its implementation and development of their basic components of educational culture, namely: ignorance of rational methods of mental activity, conditions of their application, inability to work with special literature and other sources of information, generalize, systematize the knowledge gained, rationally plan and use the time of study work. Still students face difficulty in proper identification of slides and correlating theory with practical. It becomes responsibility of teachers to know the difficulties of the students and solve them. Here comes the role of teachers to make the teaching method easy and clear for the students, so that they can learn the basic histology within a limited period of practical hours. Taking into account the fact that an important factor in teaching students morphological analysis at the Department of Histology and Embryology is the formation of a correct visual image of the normal structure of tissues and organs, we drew attention to the fact that the achievement of this goal is complicated by the fact that not all students, preparing for the lesson, are able to find the object described in the figure or in the histological drug. In some students, the process of abstract thinking does not allow to create the correct image of a particular structure, which in this case the "wrong image" of the norm can cause a false diagnosis when describing the pathological process.

During the study of this problem, it was determined that its occurrence is associated with the memorization and assimilation of the necessary amount of educational information, the ability to operate on the knowledge gained, correlate them and draw their own conclusions. Of course, in our opinion, in these cases, training, the educational aspect of the teacher requires a very delicate attitude to the abilities of students in acquiring diagnostic skills at various facilities: drugs, multimedia presentations, photographs, diagrams, electronic micrographs, etc. This approach, of course, can improve psychological and pedagogical relations and contribute to the formation of students' ability to introspection, self-esteem about their cognitive activity. The effectiveness of students' activities in the process of diagnosing histological preparations on multimedia slides is significantly increased, especially in the process of comparing tissues, organs in conditions of normal and manifestations of pathological changes. It should be emphasized that distance learning, on the part of teachers, requires systematic individual work. The student's desire to obtain deep and fundamental special knowledge is important in every possible way to support and encourage in order to develop in him a tendency to independent thinking, creative mastery of the latest achievements of science in medicine, constant updating of the personal stock of knowledge.

It should be emphasized that 1) the organization of flexible management of the educational process is ensured through pedagogical correction and continuous feedback. 2) Qualitative changes in the control of educational activities are the control with diagnosis, feedback and evaluation of each stage, providing control over the characteristics of systematicity and objectivity. 3) Strengthening the motivation and cognitive interest of students through the implementation of the research method in independent individual training of students.

The implementation of this method activates the cognitive activity of students because they are most fully involved in initiative, independence and creative search in

research activities. on the part of teachers, requires systematic individual work. The student's desire to obtain deep and fundamental special knowledge is important to support and encourage in every possible way to develop a tendency to independent thinking, creative mastery of the latest achievements of science in medicine, constant updating of the personal reserve of knowledge.

Our study also revealed the significant role of the on-screen visual aid. Its effectiveness is thanks to high demonstration properties: frontality, contrast, brightness, etc. Information from the screen students perceive emotionally, which contributes to the focus of their attention on the objects of study, and this is important for the intensification of the educational process. Histological preparations can be demonstrated with a large, small increase in various combinations in comparative terms of the norm and manifestations of pathological changes and at the same time encouraging all students in the discussion process.

The PBL (problem-based-learning) method is based on the collaborative work of a group of students who under the supervision of a teacher solve the problem in 7 steps - from refining and agreeing goals through "brainstorming" to obtaining a common result. In the process of research, students refine their knowledge, discuss decisions, learn to work in the team, reach the consensus under the supervision of a teacher-teacher. In this case, the contribution of each student to the overall result is evaluated. The most important result of such training is the ability to effectively act in complex clinical situations, gaining clinical and communication skills.

Our experience has shown that problematic and integrated teaching methods are most effective together with the principle of specialization of vocational guidance of the educational material at all stages of the educational process. This approach enhances cognitive activity and assimilation of material, especially fundamental properties and activates independent work, creates a favorable ground for her and significantly accelerates the formation of positive motivation for the student, both to study and to master the skills and further learning, which is an important for the continuing process of post-graduate doctors he implementation of the research method, students study with great interest the data (medical correlation) of the scientific literature on the consequences of the virus and the characteristic manifestations of pathological changes in tissues and organs in sick people with Covid19 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7334952/>).

The implementation of this method activates the cognitive activity of students because most fully they show initiative, independence and creative search in research activities. It requires systematic individual work. The student's desire to obtain deep and fundamental special knowledge is an important to support and encourage in every possible way to develop a tendency to independent thinking, creative mastery of the latest achievements of science in medicine, constant updating of the personal reserve of knowledge.

Using the method of problematic presentation of the material, the teacher poses a problem, formulates a cognitive task on the basis of different sources and means, shows a way to solve the task, as well as a way to achieve the goal - the disclosure of a system of evidence, comparison of points of view, different approaches. In this process,

students also become accomplices in the scientific search, perceive, realize and memorize ready information, but also follow the logic of evidence, following the movement of the teacher's thought. The method stimulates thinking, provokes interest and creative activity in the process of lectures and practical classes.

Conclusion. Analysis of the literature on the basis of the PBL method and our observations of its gradual introduction into the clinical education of many medical institutions in the world have allowed outlining the following benefits of this learning technology: 1) Promotes active learning, improvement of understanding of fundamental knowledge and provides an opportunity for their refinement or review by obtaining skills for the independent search of scientific information; 2) Develops general competence, teaches to solve clinical situations in a creative ways. 3) Activates students' thinking, by usage of their prior knowledge, and relying on existing conceptual frameworks of knowledge.