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Leading research and practices on actual issues of collaboration between Ukraine and the European Union in the fields of modern engineering, innovations in education, in social work in the aspects of psychology, philosophy, sociology, as well as the theory and practice of law, interdisciplinary approaches and modern views on the prospects in the spheres of economics, management, community development and environmental protection are highlighted.

The articles are divided into such directions as: Current Issues of Legal Science and Practice; Engineering and Technology; Environmental Protection; Innovations in Education. Issues in the Reformation of the Higher Education System in the aspect of Eurointegration; Management and Public Administration; Modern Priorities of Economics; Societal Challenges. Innovations of Social Work, Philosophy, Psychology and Sociology.

The publication is oriented on scientists, academicians, postgraduates, students and specialists who are interested in the prospective collaboration between Ukraine and the European Union.

The articles are given in the authors' edition. Responsibility for the materials given in the publication is the responsibility of the author.

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gress that will help a presenter to clearly speak about the teaching material and to attract students' interest. In the course of the work the students share their thoughts and ideas, "immerse" into the studying of the material and thus start working with it better in the future.

Scribing is one of the methods of development and formation of logical actions, critical thinking, creativity, cooperation, communication of students in the context of implementing new educational standards. The use of scribing in ESP classroom helps to increase the motivation for learning the subject, making the lessons interesting and diverse. Moreover, it can be effectively used in real-life situations connected with future jobs of the students.

References

1. Master-klass "Skraibing. Kak narisovat presentatsiu" [Master-class "Scribing. How to create a presentation"] Retrieved from <https://sites.google.com/site/mkskrajbing/> [in Russian].
2. Skraibing kak sposob vizualnogo myshlenia [Scribing as a way of visual thinking] Retrieved from <http://zillion.net/ru/blog/35/skraibingh-kak-sposob-vizual-nogho-myshlienii> [in Russian].

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EXPERIENCE OF APPLICATION OF GENERAL METHODS OF EDUCATION AT THE STUDIES OF CHEMICAL DISCIPLINES AT THE DEPARTMENT OF MEDICAL AND BIORORGANIC CHEMISTRY OF THE KHARKIV NATIONAL MEDICAL UNIVERSITY

The peculiarities of the application of general teaching methods – verbal, visual, practical – in the educational process in the study of chemical disciplines in the Kharkiv National Medical University are described. The importance of studying chemical disciplines in the preparation of the future doctor and the role of general teaching methods in this process are shown. The organic combination of these teaching methods, their perfection and creative application helps to educate students in the ability to think analytically, to make non-standard decisions when solving problems, independence.

Keywords: chemical disciplines; verbal methods; visual methods; practical methods; achromatic communication; heuristic communication; catechetical communication.

Ukraine's aspiration to achieve European standards in the field of higher education requires the teachers of universities of our country to constantly improve and update their teaching methods in accordance with international standards. Particularly high tasks are faced by the teachers of the higher medical school, which are called to train highly qualified doctors, professionals in the field of medicine, who have modern theoretical knowledge and practical skills, are able to constantly replenish and update the information, because it is known that the main value of the nation is its health and the gene pool [1]. Chemical disciplines such as "Medical Chemistry", "Bioorganic Chemistry" are not professional in medical universities, but their study has a significant effect on the final result in the preparation of a future doctor as it prepares students for the conscious learning of medical and biological disciplines that are provide basic training for normal and pathological physiology, biochemistry, pharmacology, and others.

Teachers of the Department of Medical and Bioorganic Chemistry of the Kharkiv national medical university in their training use a set of general teaching methods – verbal, visual, practical [2]. We choose the type of verbal teaching method depending on the level of basic chemical preparation of students, since medical chemistry and bioorganic chemistry are studied at the first year. In groups with lower level of basic training, we use achromatic communication: an explanation, an informative conversation, focusing on actualization of memory [2]. This method of communication as an explanation, which we use, depending on the preparation of the group, may be different: a) we analyze the individual facts and on the basis of

this we arrive at certain conclusions (induction); b) distribute educational material to separate elements (formulas, definitions, laws), then proceed to the study of general provisions (deduction). At the same time, it is obligatory in explaining the educational material that we are considering in this lesson, we rely on knowledge of the regularities of those topics that were previously studied. In groups with a lower base level, the teacher carries out such updating of knowledge himself before submitting a new material. It allows logically to combine several topics and even sections of our disciplines. In groups with a high level of basic training, especially with in-depth study of disciplines, the conversation has a heuristic character. Questions that concern students are problematic, resulting in a job becoming more creative and more productive. Quite often in such groups we organize classes-discussions. These classes are the most valuable, as students learn to argue, give their opinion, give an objective assessment to themselves and other participants in the discussion, and respect the thoughts of other students [2]. In these groups the updating of the basic knowledge is active: students, performing such tasks, themselves recall and apply the previously studied educational information.

Chemistry is an exact science that operates with certain laws, rules, formulations, and formulas. If we set ourselves the goal, make sure students learn such material, the conversation becomes catechetical: the answers to the teacher's questions must be monosemantic, clear-cut [2]. This process is somewhat dogmatic, but in this case it is justified.

We pay great attention to the use of visual teaching methods [3]. For example, in classes on bioorganic chemistry students create models of bioorganic compounds, which induces them to analyze their structure and possible chemical properties, improves the perception and assimilation of the material.

Every class, both medical and bioorganic chemistry, is provided with a training film that we can demonstrate to students. Lecture classes are accompanied by demonstration experiments.

The consolidation of theoretical knowledge, their deepening, the development of sustainable skills and abilities is possible only as a result of practical teaching methods. In this academic year, the Department of Medical and Bioorganic Chemistry of the Kharkiv national medical university went on to four hours' lessons. This circumstance opened up great opportunities for the application and the organic combination of different methods of teaching, especially practical ones, in one class, to which we refer to the full range of laboratory work. Therefore, every lesson, which students work at our department, is a laboratory-practical one. We are scrupulously involved in the selection of these works. We are trying to offer students the exact practical skills that are applicable in medical bioorganic and clinical studies: "Gastric juice analysis", "Complexometric determination of water hardness", "pH meter", "Determination of sugar by Felling reaction", "Determination of acetone iodine breakdown", "Definition of proteins by biuret reaction" and others. [4]. Depending on the content and purpose, laboratory work is done both frontal and group work. When applying the frontal method of laboratory work, each student receives the same task and performs the same work, carefully studying and analyzing the methodology for its implementation. Group laboratory sessions include the preliminary division of students into separate groups ("small groups"), each of which receives and realizes its task. The expert commission, which is created with the participation of students and a teacher, collects and evaluates the results of laboratory work performed by each "small group". As an example of applying the method of "small groups" is the laboratory work "Analysis of gastric juice." A generalizing lesson on bioorganic chemistry in groups with in-depth study of disciplines is conducted as "Brain-ring".

Thus, using common methods of organizing the educational process, the teachers of the Department of Medical and Bioorganic Chemistry include elements of creative, non-standard approach, and this, to a large extent, contributes to the education of students ability to origi-

nally, creatively think, take non-standard independent solutions in solving problems, in particular, and professional.

References

1. Fundamentals of Ukrainian legislation on health care. document 2801-12. – Ed. dated January 30, 2018.
2. Volkova N. P. Pedagogy: A guide for students in your educational institutions. – Kiev .: Publishing Center "Academy", 2002. – 576 p.
3. Features of using visual means in the study of fundamental and basic disciplines / L. G. Shapoval, Ye. R. Grabovetskaya, N. M. Chalenko, N. V. Kopoteva // Formation of the modern concept of teaching natural sciences in medical educational institutions : materials VIII of the Scientific and practical conference devoted to the 210th anniversary of the KhNMU and the 60th anniversary of the Department of Medical and Bioorganic Chemistry (Kharkiv, May 26-27, 2015). – Kharkiv: KhNMU, 2015. – P. 49-52.
4. Petiunina V. M. Laboratory work – one of the most important methods of independent work of students / V. M. Petyunina // Formation of the modern concept of teaching natural sciences in medical educational institutions : materials of the VIII Scientific and Practical Conference devoted to the 210th anniversary of the KhNMU and the 60th anniversary of the Department of Medical and Bioorganic Chemistry (Kharkiv, May 26-27, 2015). – Kharkiv: KhNMU, 2015. – P. 38-40.

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ACTIVE READINESS METHOD FOR TRAININGS AND SEMINARS

Advantage of active teaching method has been recognized in world pedagogic. Advantage of active teaching method has been recognized in world pedagogic. Learning is active only without trainer's explanations gain new knowledge (constructivism) or discover it (problem-heuristic method). learning by doing – the main teaching mean includes students' activity, when they learn in the process of working. students do not really learn the things which they listen, but do by themselves. mental and intellectual readiness is required as well directing of students' thinking predispositions, i.e. skills to the new matter. mental-intellectual setting through the special preparative tasks/problems. Such tasks shall be given as homework. Further they will be discussed under the trainer's instructions and facilitation with correction of mistakes. Thus, the mentality becomes prepared for independent construction, discovery and comprehension of the new matter. In the active readiness method learning is merged with independent work. It really provides learning by doing. This is a concrete practical, real and consequent implementation of active and creative teaching.

Keywords: *advantage of active teaching method; interactive environment; facilitator; constructivism; learning by doing; mental and intellectual readiness; mental - intellectual setting.*

Our basis was well-known Georgian psychologist Dimitri Uznadze's Theory of "Einstellung" (Set/Attitude) and our researches in psychology of thinking. We have developed and introduced the new method of Active Readiness [1].

This method allowed us to create the 11-year school interdisciplinary course of Mathematics, Literacy, Logics and Rhetoric which provides interactive, heuristic-constructional and creative learning of almost all the topics. It is the important novelty in the world methodology, which in 1999 on the Conference in Moscow was specially discussed. More than 20 years it is successfully