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THE EUROPEAN ASSOCIATION OF PEDAGOGUES AND PSYCHOLOGISTS "SCIENCE"

# "THE UNITY OF SCIENCE"



## THE EUROPEAN ASSOCIATION OF PEDAGOGUES AND PSYCHOLOGISTS "SCIENCE"

ENRICHMENT OF WORLD OUTLOOK OF FOREING STUDENTS IN STUDYING UKRAINIAN AS A FOREIGN LANGUAGE		
Vylka L. Senior teacher at Department of Social Science and Ukrainian Studies of High State Educational Establishment of Ukraine "Bukovinian State Medical University"		
KNOW-WONDER-LEARN PRINCIPLE IN PROJECT DESIGNING75		
	Voytkevich Nina Senior instructor, Department of Foreign Languages, the Higher State Educational Establishment "Bukovinian State Medical University",	
"CFSE-METHOD" APPLICATION IN SMALL GROUPS WHILE TEACHING BIOORGANIC AND BIOLOGICAL CHEMISTRY TO FOREIGN STUDENTS		
	Dikal M.V. Candidate of Medical Science, Associate Professor, Department of Bioorganic and Biological Chemistry and Clinical Biochemistry, Higher State Educational Establishment of Ukraine "Bukovinian State Medical University"	
THE PROBLEM OF ANALYSIS LYRICAL POETRY BY PUPILS OF PRIMARY SCHOOL80		
	Duhovych V.M. teacher of the highest category, senior teacher, Specialized school with intensive study of information technology number 6	
THE MAIN STAGES OF DEVELOPMENT OF THE RESEARCH EDUCATION IN THE TWENTIETH CENTURY		
	Yermakova I.P. Candidate of Pedagogical Sciences, Associate Professor The Department of Teaching Methods of Social Sciences Mykolaiv National University named after V. A. Sukhomlins	sky
LECTURE AS AN IMPORTANT COGNITIVE AND EDUCATIVE FACTOR IN THE HIGHER MEDICAL SCHOOL		
	Zamorskii I. I. Department of Pharmacology Bukovinian State Medical University	Khmara T. V. Department of Human Anatomy named after N. G. Turkevith Bukovinian State Medical University
DEVELOPMENT OF VOCATIONAL EDUCATION OF SKILLED WORKERS IN SERVICE SECTOR NOWADAYS		
	Zelman L.N. Postgraduate student, Lviv Research Centre of the Institute of Vocational Education NAPS of Ukraine	

### "CFSE-METHOD" APPLICATION IN SMALL GROUPS WHILE TEACHING BIOORGANIC AND BIOLOGICAL CHEMISTRY TO FOREIGN STUDENTS

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cal education is learning the course of Bioorganic and Biological Chem-

The top priority task of modern higher education is elaboration and istry, a science playing an important role in the development of modapplication of effective educational technologies promoting the development of creativity and initiative of a student, increasing the level of should be based on comprehensive methodical approaches to organize formation of his/her professional competence. An integral part of medi-

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scientific-technical progress and requirements of the society is a topical problem of modern medical education.

Active methods of teaching are one of the techniques of effective organization of educational process at higher educational establishments. Psychological peculiarity to teach foreign students is a number of difficulties, and their overcoming requires from teachers/instructors their personal emotional stability, awareness of a specific national character and mentality of foreign students. The educator holding classes with foreign students should have such features as communicability sociability, ability to overcome psychological barriers in communication and create favourable psychological conditions to adapt students for their education at the university. Frequently foreign students study in one academic group together with the students from other countries, and it increases psychological barrier and complicates adaptive process in a new strange surrounding [1, 90; 2, 1564]. Awareness of psychological-emotional peculiarities of the students' group and the level of preparation of an every student enable the teachers to apply pedagogical-psychological methods of students' self-regulation in the educational process more effectively with the purpose to raise their personal motivation to learning self-discipline and improve their progress in studies

The objective of the article is to generalize approaches to the peculiarities of organization of teaching/learning in small groups with "casemethod" application while holding the classes on Bioorganic and Biological Chemistry for foreign students of medical specialties.

Comparing the reasons, tasks, methods and purposes of modern and traditional pedagogical science one should emphasize orientation of the innovative pedagogical science to individuality, self-development and self-perfection of learners. A group work has its own peculiarities and methods, it is effective and complicated in its organization at the same time. By its psychological-pedagogical peculiarities the method of teaching/learning in small groups differs from other types of a group work, as it is directed to form practical skills and abilities of independent work, thus it is the most effective in comparison with other methods being one of the constituent of the didactic system. To achieve a positive result of the educational process the collaboration with students should be used systematically, the results obtained should be estimated and improved. Sharing their work and exchanging the information in the academic group students are able to overcome their uncertainty and fear of educational failure. Under conditions of mutual learning and assistance their cognitive motivation increases.

During classes on Bioorganic and Biological Chemistry in the groups with foreign students with the aim to solve educational-cognitive and communicative-learning tasks effectively and quickly, the method of "small groups" in combination with "case-method" is rather reasonable to be applied. 'Case-method' to solve situational tasks is rather productive as the technology of mutual learning in small groups, it is based on collaboration, application of theoretical pedagogical and psychological principles to obtain practical skills and overcome language and psychological difficulties. On of the conceptual fundamentals of the method is to place students in small groups to promote their socialization as personalities. In case this pedagogical conception is applied. the student becomes an object and subject of socialization at the same time, develops as a personality by means of intellectual, motivational and emotional stimulation with the purpose of a complete realization of the individual in the future profession of a doctor. A positive aspect to apply "case-method" in small groups is organization f educational process as the way to search and make decisions [3, 20: 4, 81].

In big groups students are often passive recipients of the infor-

mation, while in small ones they are maximally active discussing and generating ideas. The main function of small groups in the process of educational activity is quick and effective achievement of learning purposes with high educational progress. Emotional function of work in small groups is realized by the desire to achieve respect and confidence among group-mates, future co-workers. In a small group students feel it easier to share their views, ideas, suggestions concerning the solution of different tasks, psychologically easier they experience their failure of a wrong idea, they get rid of their hand-ups, are involved in the work more actively, learn new material guicker and try to compete with leaders. Due to this facts the teacher/instructor can divide students into smaller groups according to their levels of preparation and get the opportunity to make educational process individual, to form an integral team to raise the discipline and to control the process of acquiring practical skills and introducing theoretical knowledge into practice more effectively [5, 264].

Small students' groups during practical classes are characterized by emotional enthusiasm and scientific interest of every student. In case the tasks are solved together every participant of a small group tries to be useful as much as possible in the process of completion of a practical work, therefore this approach is effective to stimulate independent kinds of activities, more fruitful in completion of home tasks, and it makes student be more attentive when the teacher explains. While studying in small groups students acquire abilities to communicate without conflicts, to understand each other quickly, to participate together in the solution of complicated tasks.

In small groups complicated tasks are solved more successfully, difficult educational material is learnt better, cognitive activity is enhancing, the development of individual and group responsibility is stimulated. While studying in small groups students are involved into active cognitive activity, acquire valuable social abilities, create a friendly atmosphere in the group, achieve self- and mutual respect, learn how to estimate their own possibilities and other members of the group adequately [2, 1566; 6, 1139].

The structure of a practical class with mini-groups begins with a classical preparatory stage: the teacher explains basic test check questions of the topic, reviews the rules and principles to conduct the practical work, directs the students how to combine theoretical knowledge and practical skills. After the basic material is presented the teacher forms three-four working groups of students supplying them with a "case" – situational task. In addition to pedagogical tasks while distributing student into the groups the teacher should solve the following psychological tasks as well:

- to form a motivation ability of the students to mutual work;
- to accept the rules and requirements of mutual activity;
- to create unity of views in the group.

While teaching the theoretical subject Bioorganic and Biological Chemistry a "case" is specially prepared by the teacher educational material containing structural description of a situation from medical practice and requiring knowledge both from Biological Chemistry and diagnostics of patient's condition. Such a kind of active learning helps to transform a mini-group of students from their educational surrounding in the class-room into their future working places, activate their knowledge, overcome language barrier for mutual analysis, discussion and solution of a situational task [7, 12].

Application of "case-method" in the group of foreign students while teaching Bioorganic and Biological Chemistry promotes the formation of professional skills, makes the educational process more dynamic, richer, full of content and more informative. By means of "case-meth-

od" not only practical problem is reflected, but the whole complex of knowledge necessary to master and apply the tasks becomes topical, therefore, the method combined educational, analytical and teaching activities successfully [8, 10; 9, 45]. In the process of solution of a situational task in small groups every student acquires certain experience of practical application of knowledge, learns to analyze the situation, to suggest arguments in the process of discussion and draw conclusions.

To organize the work in a small group 5-7 minutes are necessary. During this time the members of the team coordinate the amount of work and tasks to be solved. Working in a small group students chose a correct answer by means of a discussion, everyone has an opportunity to substantiate his/her variant. During this time the teacher is observing their coordination of work in a mini-group on the whole and every student separately.

While discussing situational tasks in the class-room the teacher has to estimate practical skills of the students from every group, theoretical aspects of knowledge in every group, proper solution of the task received. During the final stage of a practical class in case of the necessity to consolidate the material studied, individual checking is performed in the form of written tests of different complication levels. A kind of testing "a small group – feedback" might be also applied, as it enables to promote learning of the material studied by means of the correction of work of certain students when the group is answering. The answers

to "case" tasks may be explained by the teacher in case it is necessary, as he/she also participates in the discussion of finding the results and making decisions. Group work promotes a students' group cohesion, therefore an important task of the teacher while organizing the work in mini-groups is to create the atmosphere of mutual work, benevolence and understanding, realization of individually targeted educational process. The application of "case-method" in small groups is likely to be very important to ensure self-development and self-realization of students, to increase their cognitive activity and professional training on the whole [2, 1565; 8, 13; 10,122].

Thus, solution of case tasks in mini-groups promotes to realize self-discipline and self-education of students effectively, to hold a qualitative testing of knowledge and estimate their cognitive activity. The method of learning in small groups in addition to acquire knowledge and practical skills teaches students to get information independently, to use it properly in everyday work, to combine new knowledge with that obtained earlier successfully.

The experience of teachers and analysis of social-psychological and pedagogical literature enables to suggest that organization of work of foreign students in small academic groups creates favourable conditions for educational communication, language adaptation and mastering practical skills while learning Bioorganic and Biological Chemistry.

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