*Syrovaya Anna Olegovna, Kharkov National Medical University,*

*Pharm.D., professor, Head of Medical and Bioorganic Chemistry Department*

*Grabovetskaya Evgeniya Romanovna, Kharkov National Medical University,*

*PhD, associate professor, Medical and Bioorganic Chemistry Department*

*Kopoteva Natalia Vasilievna, Kharkov National Medical University,*

*Assistant, Medical and Bioorganic Chemistry Department*

*Chalenko Natalia Nikolaevna, Kharkov National Medical University,*

*Assistant, Medical and Bioorganic Chemistry Department*

**Problem-based education as a basic principle of organization of students learning activity**

**Abstract:** The article is devoted to the basic principle of organization of students learning activity. It is shown that the rational organization of educational process, namely formulation of strategic objectives, contributes to effective memorizing of study material.

**Keywords:** problem, learning, memory, the principle of learning, didactic tasks.

One of the major problems of the modern educational process is the adaptation of its contents and methods to progressively increasing life demands. The efforts of specialists in the field of didactics and methodology are directed for the solution of this problem today. Intensive searches are also carried out by many practical teachers of secondary and higher education. The most significant achievement of psycho-pedagogy of recent years is substantiation of problematical education as one of the central and fundamental principles of rational organization of learning activity.

Universities are oriented in this direction in various fields of higher education. They put forward requirement for the lectures to be problematic and to promote students' independent work. This requirement is a high-priority methodical task. As knowledge cannot simply be «transplanted» from one head to another, and is always a product of the student's own activity, then the only rational way of psycho-pedagogical management of the educational process is the formation of an adequate learning activity in the appropriate «given» situation[[1]](#footnote-1).

It is known that the main product of such activity is memorized without specific learning[[2]](#footnote-2). Special studies were devoted to conditions of rational organization of such activity in the training process, which were conducted in a school plan2, and then at universities[[3]](#footnote-3). This work is in progress nowadays in Kharkiv National Medical University (KhNMU) and it is accompanied by arising of new specific tasks.

Some results are obtained at the Medical and Bioorganic Chemistry Department of KhNMU. The results allow to formulate a number of provisions and guidelines concerning the conditions of rational organization of learning activity, which provide high-performance learning and memorization of learning material directly during lectures and seminars[[4]](#footnote-4). Investigations give opportunity to formulate, primarily, three main concepts of methodical plan:

1) the most common condition is a training organization «by task», that is, by creating a situation requiring mental activity of student, aimed at achieving a specific cognitive goal;

2) introduction in the learning process not separate, isolated tasks, but specially organized system of learning tasks that will create a proper system of interrelated actions. This system is based on the principle: the purpose of the preliminary step must serve as a condition for the following one (result of the given problem makes sense only as a means of solving the following);

3) initial submission of so-called «strategic task» which is the most common in relation to the totality of the individual tasks.

The strategic task performs function of the «system-forming factor»: it outlines the «trajectory» of movement to the result that can be obtained only at the end. Strategic orientation of the material, which is implemented in demand «start from the end», is more important than psychological component of organization of knowledge elements into the system. All these three conditions are in agreement with the principle of problem-based learning. They actually represent methodically branched content of the problem as a didactic task.

As it is known, not any task serves as a problem. If «task is a goal given under certain conditions»[[5]](#footnote-5), then «problem is a task to be examined»[[6]](#footnote-6), i.e. a problem is a «big» task. Since these features of the concepts «task» and «problem» are always relative, in relation to the students of the 1st course the following can be stated: such task can be called a problem which is the most common for the entire set of tasks that make up the contents of the given subject, chapter or topic. Therefore, the concepts «problem» and «strategic» task appear to be equivalent for students. Thus, the development of the strategic orientation in the material is an important factor for the formation of scientific knowledge as a reflection of the concepts of the subject. How to develop such orientation?

Firstly, we consider the problem not as a method, but as the principle of learning, which does not eliminate other methods. Certainly, «prepared information» can be given during studying process if there is confidence that it can be accepted, that is, the students already have a need for this information. Thus, the goal of a teacher is to create the conditions (in the form of tasks) for students to have arisen the need for this information.

It should be noted that actual time-consuming work for the teacher in this case is not the teaching process itself, but «self-work» on organization of studying material of a discipline. This work is associated with segregation of «final units», and formation of the entire system of concepts on this base. Further this work is compensated as efficiency of the method increases, i.e. its laboriousness reduces «automatically». Important point should be noted: when the method of strategic orientation becomes a system of work, the students greatly change the attitude to the subject and to educational process in general, because they change the motivation for learning.

Analyzing the long-term experience of the department, we notice that today's learning difficulties are connected with the increasing demands of students to the «source of information» but not with the fact that «they do not need anything». The reasoning of the teacher according to principle: «I gave them a lot, but they got so little» – are inherently illogical. It is they (the teachers) «have been giving» a lot (wanted to give a lot), but gave as much as they (students) took. If we want students to take more, we must make sure that it is exactly what they need. And this, if we bear in mind the need for learning, inevitably leads to the implementation of the principle of problem-based education.

Thus, the system of science is the basis of the concept of the system of discipline, but in order to give it to a student, it must be initially built by teachers. It is necessary to isolate it and to give to students in the system of tasks, but not in the «prepared» form, as the assimilation of concepts by a student is only possible if it is a product of self-activity.

**References:**

1. Гримблат С.О., Сосин И.К. Проблемы оптимизации высшего образования. Монография. Х.: Факт. – 2004. – 720 с.
2. Леонтьев А.Н. Проблемы развития психики. – М.: Мысль, 1965. – 570 с.
3. Навчальний процес у вищій педагогічній школі / За ред. О.Г. Мороза. − К.: НПУ ім. М. Драгоманова, 2001. – 337 с.
4. Середа Г. К., Снопик Б. И. К проблеме единства механизмов кратковременной и долговременной памяти.— Вопросы психологии, 1970, № 6, с. 60—74.
5. Сирова Г.О. Інтерактивний метод проведення практичного заняття // Медичний університет №13-14 (2889-2890), 25 червня 2014 р.
6. Толковый словарь русского языка: В 4 т. / Под ред. Д. Н. Ушакова. Т. 1. М., 1935; Т. 2. М., 1938; Т. 3. М., 1939; Т. 4, М., 1940. (Переиздавался в 1947-1948 гг.); Репринтное издание: М., 1995; М., 2000.

1. Навчальний процес у вищій педагогічній школі / За ред. О.Г. Мороза. − К.: НПУ ім. М. Драгоманова, 2001.-337с. [↑](#footnote-ref-1)
2. Середа Г. К., Снопик Б. И. К проблеме единства механизмов кратковременной и долговременной памяти.— Вопросы психологии, 1970, № 6, с. 60-74. [↑](#footnote-ref-2)
3. Гримблат С.О., Сосин И.К. Проблемы оптимизации высшего образования. Монография. Х.: Факт. – 2004. – 720 с. [↑](#footnote-ref-3)
4. Сирова Г.О. Інтерактивний метод проведення практичного заняття // Медичний університет №13-14 (2889-2890), 25 червня 2014 р. [↑](#footnote-ref-4)
5. Леонтьев А.Н. Проблемы развития психики. – М.: Мысль, 1965. – 570 с. [↑](#footnote-ref-5)
6. Толковый словарь русского языка: В 4 т. / Под ред. Д. Н. Ушакова. Т. 1. М., 1935; Т. 2. М., 1938; Т. 3. М., 1939; Т. 4, М., 1940. (Переиздавался в 1947-1948 гг.); Репринтное издание: М., 1995; М., 2000. [↑](#footnote-ref-6)