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INTERNATIONAL

SCIENTIFIC AND PRACTICAL CONFERENCE

SOCIAL AND ECONOMIC
ASPECTS OF EDUCATION
in Modern Society

**Proceedings of the
VI International Scientific and
Practical Conference**

**Social and Economic Aspects
of Education in Modern
Society**

September 20, 2018, Warsaw, Poland

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ISBN 978-83-950180-7-7

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**RS Global Sp. z O.O.
Warsaw, Poland
2018**

Founder:
RS Global Sp.z O.O.,

Research and Scientific
Group
Warsaw, Poland

**Publisher Office's
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Warsaw, Poland,
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STUDENTS KNOWLEDGE CONTROL AS A CONDITION FOR INCREASING THE EFFICIENCY OF THE EDUCATIONAL PROCESS

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Abstract. *This article describes the main pedagogical principles of student knowledge control. It was shown that initial control at the first practical class is an integral part of the educational process in the disciplines "Medical Chemistry" and "Bioorganic Chemistry" at the Department of Medical and Bioorganic Chemistry at the Kharkiv National Medical University. This control allows teachers to set the level of basic chemistry training for the First year students and is one of the conditions for improving the quality and effectiveness of the learning process through the existence of objective, systematic feedback between the student and the teacher as a means of managing this process. All types of control – initial, current (thematic) and final – are intended to provide the teacher and the student with objective information about the course of educational and cognitive activity. Systematic control of knowledge and skills of students – one of the main conditions for improving the quality of education.*

Keywords: *initial control, current control, medical chemistry, biological and bioorganic chemistry, feedback.*

Introduction. The system of study at a high school is a multi-faceted process, which consists of a number of interconnected elements. The control of knowledge, skills and abilities is an important place among of them. Consequently, the control of cognitive activity of students is an important component of the educational process. By definition, control is the ratio of achieved results to the planned goals of learning, in which the logical chain link must operate: the purpose of learning-process-result-the next goal [1]. Control is effective when it is not only a banal check of the knowledge of those who study.

Monitoring and evaluation as part of the learning process functions in a modern high school should be subject to substantial rethinking. Humanization, democratization of education, reorientation of learning from the information and reproduction process to the creative development of the student's personality, the formation of his basic abilities and competences require changes in approaches to assessing academic achievements. Control of educational work and evaluation of students' knowledge must be objective in nature, with a tendency towards its maximum differentiation and variation [2, 3].

Control over study at medical universities is realized in several types: current and final. Current control is the most widespread and most effective type of control when it comes to systematic checking. It is carried out in the course of programs of mastering the material of a separate lesson. Its peculiarity consists in the fact that it allows to see the process of formation of abilities and skills and, accordingly, to make adjustments to the work of the teacher.

The purpose of the final control is to determine the level of formation of communicative competence upon completion of the study of the subject. One of the important areas of application of final control is attestation of students, that is, the establishment of conformity of the level and quality of the preparation of students to the requirements of modern educational standards for a certain discipline. In the final control, the controlling function acts on the foreground [4]. Depending on the specifics of organizational forms, distinguish control exercised by the teacher (front, group, individual and combined), and self-control of students. Control should stimulate the continuous work of all group students. This is achieved by such techniques as the teacher's statement of problem questions or tasks for the whole group with the next challenge for the answer of one or another student (as in the front-line survey); commenting on the individual positions of the students by the answers of their colleagues, completing their messages and examples; the offer of other, original ways of performing exercises and solving problems, etc. In a combined form of control (with a so-called compacted survey), a successful combination of individual control with the front and group is achieved. The peculiarity of this form of control is the simultaneous challenge of the teacher to answer several students, one of which answers orally, 1-2 are preparing for an answer, performing on the board the necessary graphic works or recording the conditions and the course of solving tasks, while others carry out individual written or practical tasks. The benefits of a compacted

survey are that it allows you to thoroughly test a larger number of students at a relatively low cost of time. Serious objections to this form of control are based on the fact that it limits the educational function of verification, because students who do their own tasks do not participate in the front-line work with the group, and the results of their activities are checked by the teacher outside the classroom. Combined form of control provides the ability to use programmable means to test students' knowledge, skills and abilities more than other forms of control. Self-control ensures the functioning of internal feedback in the process of learning, receiving students' information about the completeness and quality of studying the software material, the strength of the formed abilities and skills, difficulties and disadvantages that arose during the preparation. Self-examination has a great psychological value, stimulating learning. With its help, the student really is convinced of how he mastered the training material, verifies the correctness of the tasks through reverse actions, evaluates the practical value of the results of tasks performed, exercises, experiments, etc. [5].

In broad terms, control involves observing the students' activities in practical classes, during laboratory experiments; work with workbooks that are created under the existing training program.

Control acts as the link of the learning process, which provides the opportunity to receive feedback information [6]. In our opinion, the conduct of the initial (initial) control of students' knowledge, which the teachers of the Department of Medical and Bioorganic Chemistry of the Kharkiv National Medical University (KhNMU) commence, each practical lesson in the discipline "Medical Chemistry" and in the discipline "Bioorganic Chemistry" is a means of feedback, as a means of managing the educational process [7]. By analyzing the results of this control, teachers can draw conclusions regarding the quality of independent non-auditing work performed by students at home in preparation for a class. This control allows you to identify the most complex issues that cause difficulty in learning the student material and provide them with timely assistance, explanations.

Teachers of the department consider expedient conducting of initial control on the first lesson on Medical chemistry: students carry out test assignments according to the program of high school. The purpose of such control is that, according to its results, the level of basic chemical preparation of the First year students is possible, which we can base on the study of chemical disciplines in our university. In turn, students see the gaps in background knowledge as a motivation for additional work on the basics of chemistry.

Control over the quality of knowledge obtains multifaceted functions [5, 6], which are interrelated and manifest in complex. The systematic observation by teachers of each student's educational activities, the correction of this activity by the results of control is an educational function.

The diagnostic control function is very important because it enables the teacher to identify the student's successes and failures in knowledge, abilities, skills, identify the causes of failure, to develop measures to prevent and overcome failure, which significantly increases the quality of training.

Effective systematic control and evaluation of students' work brings them into conscious discipline, teaches to be persistent, hardworking, and develops a sense of responsibility (educational function). And application by the teacher of methods of interaction effectively affects the development of students of principle, justice, and mutual respect.

The evaluation of student activities by the teacher should be transparent, objective and justified [8-10]. Valuable is the use of methods of self-assessment and mutual evaluation. Such control is a developing one, as students learn to think logically, improve memory, and so on. Success control also serves as a stimulating function due to the fact that an objective, transparent, well-founded assessment encourages students to improve their learning activities, and this incentive, ultimately, becomes sustainable and motivated. Finally, control creates the opportunity for both the teacher and the student to manage cognitive activity. Information on the state of mastering the educational material based on the results of monitoring is the basis for the correct adjustment of the work of both the students and the teacher himself.

At the Department of Medical and Bioorganic Chemistry of the KhNMU at the teaching of chemical disciplines, teachers use the following types of controls that are traditional in pedagogical practice [8, 9]. Input control is described above in this paper.

Current control is carried out at each lesson in order to find out the level of students' acquisition of new theoretical material, practical skills and abilities. Since classes in the department for four hours, the teachers of the department managed to develop working curricula in such a way that only one topic was studied in the practical lesson. Therefore, we consider such control as thematic.

The thematic evaluation of academic achievements of students is a means of systematization and generalization of knowledge motivates students to more deep and detailed mastering material of a particular topic [5]. Results of thematic control are recorded in the journal of work of the academic group (paper and electronic).

Current (thematic) control, of course, is a significant component in the final control, as the teaching of students in the KhNMU is carried out under the credit transfer system. Therefore, for the current educational activity the student can score from 70 to 120 points. The final control is carried out in the form of a differentiated offset. In order to increase the effectiveness of final control, the evaluation criteria have been developed on the basis of "Instructions for evaluating educational activities under the European Credit Transfer System for the organization of educational process", approved by the order of the KhNMU.

In accordance with the developed criteria, a differentiated score from the disciplines "Medical Chemistry" and "Bioorganic Chemistry" provides an assessment of the two levels of academic achievement of students. The first (sufficient) level - the student has essential a feature of concepts, regularities, applies knowledge in standard situations. A certain amount of inaccuracy is allowed. For the first level, when compiling a differential score, a student can get 50 points. When preparing for the first level of graded test, students use an open test base, which is available on the department's website.

The second (high) level of student achievements requires deep knowledge, ability to generalize, apply creativity, perform research tasks, and solve problems. For each correctly completed task of the second level, the student gets 9 points. Consequently, the student can get 50 to 80 points for preparing a graded test.

The results of general control – the mark for the disciplines "Medical Chemistry" and "Bioorganic Chemistry" consists of the total amount of points for the current academic activity and a graded test in points and can range from 120 to 200 points.

Students whose educational achievements are estimated at 180 to 200 points must confirm a high level of knowledge in an oral interview with a commission consisting of three teachers (the head of the department, associate professor, group lecturer).

The program material, the mastery of which is controlled by the compilation of graded tests from both disciplines, includes not only issues that were considered during the performance of class self-work, but also the issue of out-of-class self-work. By controlling out-of-class self-work, we urge the student to find ways of solving and solving problems that are aimed at mastering the educational material.

Conclusions. Thus, student knowledge control is an essential and important condition for improving the quality and effectiveness of the learning process through the existence of objective, systematic feedback between the student and the teacher. Systematic control of knowledge and skills of students – one of the main conditions for improving the quality of education. The teacher in his work should use not only the standard forms of control, but also systematically invent and implement their own. Skillful teaching of various forms of control of knowledge and skills contributes to increasing the interest of students in studying the subject, warns the lag, and provides their active work. As a result of conducting non-traditional forms of control of knowledge and skills, the individual characteristics of students are revealed, the level of preparation for studies increases, which allows timely elimination of shortcomings and gaps in students' knowledge.

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