

Improving Independent Educational Assignments in the Teaching of Chemistry in the Credit Module System

Ismailov Saidjon Azamjonovich

Senior teacher, Department of Methods of Teaching Chemistry,
Tashkent State Pedagogical University named after Nizami,
Uzbekistan, Tashkent
E-mail: @ismailovsaidjon

Abstract: This article analyzes the study of the possibilities of effective organization of independent education assignments of students in the study of chemistry and the improvement of independent study assignments, and discusses the effective control in permanent higher education institutions.

Key words: independent education assignments, chemistry, credit module system, education system, educational technologies, learning activities, self-monitoring, self-assessment

At the same time, the upbringing of the young generation, which is the future of independent Uzbekistan, is an internal conflict process that requires great attention. Improving the quality of education, focusing on the formation of a comprehensively developed personality are the most important tasks of pedagogy. In this regard, the selection and search for new methods that ensure the interdependence of the educational, developmental and upbringing functions of the sessions is of particular importance. On October 8, 2019, the President signed the Decree "On approval of the Concept of development of the higher education system of the Republic of Uzbekistan until 2030."

In organizing education process, the use of a credit-modular education system implies the consistent and thorough study by students of the study material divided into separate modules as logically completed parts of theoretical knowledge and practical skills in a particular subject.

Each module has given a certain amount of credits, which measures the amount of study work. Students preparing for different types of lessons should be able to quickly direct the flow of modern educational, scientific and methodological information, analyze them, critically understand, highlight key aspects, logical structure and thus demonstrate the ability to master independently, and supplement their knowledge.

New educational trends focus on the use of the latest educational technologies, in particular distance learning from school. V. Buryak, N. Soldatenko, V. Ujik and others studied modern research on the theory and practice of developing student independence in the education system, and the organization of independent work of students V. Andrushchenko, T. Lysyanskaya, V. Lugovoy, analyzed and studied by Skripchenko et al.

Independent work is mandatory for every student, defined by the curriculum and is an important part of the training process. Learning activities take up one-third to two-thirds of the total study time. The organization of independent work is systemic in the entire period of study of students. To optimize independent cognitive activity, individual work plans of students are created, which not only serve as a means of informing students about the required amount of knowledge acquired independently, but also help them to properly allocate study time and their individual allows you to perform actions and achieve the desired result.

As with any activity, **independent study activities** have their own content, which includes: motivation, learning tasks, learning activities, supervision, self-monitoring, self-assessment that turns into self-assessment.

Such activity is motivated by a specific purpose, reflects the subject's idea of the results of the activity, and takes the form of self-education.

An important aspect of independent work is that it solves not only the problems of education, but also the problems of student self-development and self-improvement.

The forms of independent work currently offered to students in traditional education include: abstract; recording of primary sources, abstracts, drawing up a plan of recycled material; review, interpret, reflect, teach, solve problems; compile diagrams, tables, charts, etc; computation, graphics, computational and graphic work, test development, didactic materials; independent supervision work, performance of individual creative tasks, other forms corresponding to the specific characteristics of the faculty.

Analyzing the possibilities of organizing independent work of university students in the form of distance learning, it can be concluded that this form of independent work contributes more forms skills.

E-textbooks develop skills in working with primary sources, skills in using modern means of obtaining information, as well as self-monitoring, teacher consultation or other course at each stage of the study of the material allows you to hear the participant's opinion.

Today, in order to improve the quality of teaching in the natural sciences, the focus is on improving the quality of education through the use of modular technologies in the education system in accordance with international standards. The most basic aspect of the module is the training module.

The unity of the following concepts related to the concept of "module" must be fully ensured: Independent unit; Integration of different types of learning activities; Methodological support (presentation, experimental equipment and reagents, additional handouts, etc.); Independent development (assignments for independent work. And self-examination questions, issues); Independence of the student in the educational process; Control and self-monitoring;

Independent education assignments are designed to fully cover the content of the course and are based on the expansion of theoretical knowledge, the establishment of independent learning activities of students. Independent education assignments are part of the student's workload and require a minimum of 2 credits (60 hours). For example, assignments for Chemistry course modules are practical and must be completed and submitted independently by the student. The student must collect 2 credits by the end of the semester and will be given 10 points.

In this schedule we can analyze independent education assignments on the subject chemistry:

No	Themes of independent education	Given assignments	Form of assignment	The amount allocated for IE
1.	Methods for solving problems related to the rate of chemical reactions.	Summarizing the literature. Completion of individual tasks	Presentation. Not less than 6 pages	0,2 C
2.	Methods of solving problems related to chemical equilibrium.	Solving and analyzing problems related to chemical equilibrium.	Presentation. Not less than 8 pages	0,2 C
3.	Methods of teaching the topic of solution preparation.	Learning and analyzing the topic of solution preparation.	Presentation. Test. Not less than 10 pages	0,2 C
4.	Methods of conducting experiments on the topic of	Conducting experiments on the	Analyze and show it by	0,2 C

	basic chemical concepts and laws.	topic of basic chemical concepts and laws.	experiments .	
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The results show that, through independent study assignments, students do the following:

1. In the process of direct classroom training - lectures, practical and seminar classes, laboratory work.
2. In extracurricular communication with the teacher - in consultations on educational issues, in the process of creative communication, debt relief, individual assignments, etc.
3. In the library, at home, in the dormitory, at the department when the student performs educational and creative tasks.

By independent study assignments, students re-analyze and refine their knowledge of the topic and work on it on their own.

Conclusion

In conclusion, independent education assignments provide the skills to independently acquire new knowledge. Finding the right information, easy ways of learning serves as a primary tool in identifying tools. Students effectively use information sources and addresses, learn to work with educational and scientific literature, normative documents, work with electronic textbooks and databases, purposefully use the Internet, determine the rational solution of tasks.

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