

METHODOLOGICAL PRINCIPLES OF THE STUDENT'S INDEPENDENT WORK FORM UNDER THE SUPERVISING OF THE TEACHER IN PROCESS OF MODERN EDUCATION

Musaeva Nargiza Khashimjanovna

Master's student of Tashkent state pedagogical university

<https://doi.org/10.5281/zenodo.7772930>

Abstract. *Independent work should be based on innovative technologies. the form of independent work in the auditorium provides students with textbooks and primary sources, group assignments, and individual imitative activities within the given task. Independent work is carried out according to the schedule, indicating the date, time, audience and tutors for each subject throughout the academic period. Classes within the framework of independent work can be in consultation and interactive forms, their ratio is determined by the complexity of the studied subject: the volume of classroom hours allocated to their study, the level of preparation of students.*

Keywords: *credit module, innovation, independent work, self-study, education, pedagogy, psychology, audience, teacher.*

The introduction of the credit-module teaching system is an important factor in the cooperation between the teacher and the student. In modular education, the pedagogue organizes, manages, advises and checks the student's learning process. And the student moves independently towards the directed object. Most importantly, ample opportunities are created for students to get independent education.

The transition to the credit-module education system increases the commitment and demand for professors and teachers of the higher educational institution. With the modular teaching system, the teacher performs not only the functions of an informant and supervisor, but also the functions of a consultant and coordinator. The leadership role of the teacher is preserved in the pedagogical process. For this, professors and teachers must increase their responsibilities in the educational process, work on themselves regularly with strict discipline, and introduce the "mentor-student" system, widely involving talented students in the innovative ideas created by them.

The formation of knowledge and science directly goes back to the education system. The effectiveness of the educational system is directly ensured by the level of the teacher, the needs of students, the content of educational literature, and the infrastructure aimed at the formation of independent education. Therefore, the training of advanced personnel, increasing their competitiveness in accordance with the requirements of the labor market, and the cultivation of creatively thinking specialists are closely related to the educational process established in educational institutions. On October 8, 2019, the head of our state signed the Decree "On approval of the concept of development of the higher education system of the Republic of Uzbekistan until 2030". In this important programmatic document, "at least 10 higher education institutions in the Republic are included in the list of higher education institutions in the first 1000 places of the ranking of internationally recognized organizations (Quacquarelli Symonds World University Rankings, Times Nearer Education or Academic Ranking of World Universities) and step-by-step

transfer of the educational process to the credit-module system in higher education institutions" [1-3].

Also, by 2030, 85 percent of all higher education institutions (HEIs) in the republic, including 33 higher education institutions in the 2020/2021 academic year, were shown to be transferred to the credit-module system [5].

Credit-module system-it is a process of educational organization, a collection of module technologies of teaching and an evaluation model based on credit measurement. Carrying it out as a whole is a complex and systematic process. In the credit-module principle, two main issues are given importance: ensuring independent work of students; assessment of student knowledge based on rating.

The above is not only teaching based on innovative educational technologies, but also teaching students to study and learn independently, to have a new attitude to education, to acquire the necessary and deep theoretical knowledge, and to form practical skills based on the demand of the labor market. In short, this system is aimed at the professional development and maturity of the student. It is aimed at ensuring the education of the scholar throughout his life and forming human capital that can meet the labor market and modern requirements.

Module- it is part of a curriculum where several subjects and courses are taught. It is a set of several subjects (courses) aimed at students' ability to acquire certain knowledge and skills, analytical and logical observation. In this, the teacher organizes the educational process, gives live, video and audio lectures, coordinates and monitors the student's activities. The student studies the subject independently and completes the assigned tasks.

According to foreign experience, the educational process in the credit-module system consists of 2-4 modules per semester. The subjects included in the module are formed from easy to complex, from theoretical-methodological subjects to applied subjects and based on the principle of logical complementarity. In order for a student to become a specialist, it is necessary not only to acquire information, but also to be able to process it and put it into practice [6].

In the module-based teaching system, a rating evaluation system is used to evaluate students' knowledge, skills, and abilities. In it, all the student's educational activities, that is, the knowledge acquired and mastered in the classroom and outside the classroom, are evaluated by giving points.

Credit is a unit of measurement of the educational load (time) spent on studying and mastering subjects in a particular educational direction or program (course). –Credit is the minimum amount of time allotted to a student to study in the classroom and independently, usually for one week, as determined by the regulatory document. Credit is given to the student after completing the assigned tasks in a certain subject and successfully passing the final exam.

Each student must accumulate credits in order to obtain a diploma in the field and specialty of his choice in the future. The accumulated credit will serve the student to improve his qualifications or obtain additional higher education throughout his life. Credit technology gives learners the right to choose elective subjects included in the working curriculum, thereby directly participating in the formation of an individual curriculum. They are given the freedom to choose not only subjects, but also professors. Giving students the opportunity to choose subjects is a positive thing. It is also considered as a unique value indicator of the evaluation of educational processes [8].

Credit education was introduced in US universities in the 18th and 19th centuries and was created in order to liberalize educational processes and determine the student's weekly academic load.

In 1869, the president of Harvard University, Charles William Eliot, a well-known figure of American education, introduced the concept of "credit hour". Thus, in 1870-1880, a system measured by credit hours was introduced. Studying with the credit system and mastering educational programs created an opportunity for students to independently plan the educational process, control its quality, and improve educational technologies.

As a result of these efforts, in 1999, representatives of 29 countries signed the Bologna Declaration in Bologna, Italy.

There are 48 countries participate in the Bologna Process. Among them are Russia, Ukraine, Azerbaijan, Moldova, Armenia, Georgia, Kazakhstan and the Republic of Belarus from the CIS countries.

Training of highly qualified personnel according to the Bologna system is carried out in two stages. Bachelor's training, usually not less than three years, and a 1-2-year master's degree.

Many experts believe that the adoption of the Bologna Declaration is due to the limited opportunities of European higher education institutions in the competition with the USA in terms of acquiring potential and highly talented students, valuing their knowledge in the labor market, and the tendency of many "intellectuals" to leave the old continent and immigrate to America. admits that the countermeasure was the root cause.

Today, four models for the implementation of this credit measurement system are widespread.

These are the United States Credit System (USCS); Credit system of European countries (ECTS); Asia Pacific Credit System (UCTS); UK Credit System (CATS).

According to information, the Ministry of Higher and Secondary Special Education of our country prioritizes the use of the European ECTS system in the implementation of the credit system. Therefore, we believe that it is appropriate to dwell on its advantages, conveniences, achievements and shortcomings.

One of the most important aspects of the Bologna Declaration is based on the use of a single "credit system" of higher education institutions (ECTS). A credit or a credit unit is an indicator of the value of any educational activity included in the curriculum.

The ECTS system offers great advantages to students of Europe and, in general, the countries participating in the Bologna process.

For example, it guarantees the recognition of the academic knowledge acquired by the student at the university, i.e. a unique "conversion" in the higher education institutions of the countries that are members of this system. At the same time, this system allows the members to restore, transfer and terminate the studies of students at another HEI.

Independent work should be based on innovative technologies. the form of independent work in the auditorium provides students with textbooks and primary sources, group assignments, and individual imitative activities within the given task. Independent work is carried out according to the schedule, indicating the date, time, audience and tutors for each subject throughout the academic period. Training within the framework of independent work can be in consultation and interactive forms, their ratio is determined by the complexity of the studied subject: the volume of classroom hours allocated to their study, the level of preparation of students [9].

The student, who has received advice individually, signs the journal on the accounting of teachers' work. The department controls the quality of HEI, in which it approves the size, content and type of report of HEI, determines the volume, sequence and deadlines of submission, reviews the reports of students and teachers on the results of HEI. Independent work of the student under the guidance of the teacher in the traditional form:

- problem solving - solving the problems given on the subject of practical training and presenting it in writing;

- abstract - a written statement of the problem, in which literary sources are interpreted or scientific work, books are analytically described;

- colloquium - organizing a conversation in order to check the assimilation of the theoretical part of the educational module;

- essay - a written statement of one's personal opinion on a current topic in critical, journalistic and other genres;

- presentation - making a speech on a given topic by means of slides and video materials;

- case-study - searching for a solution to problems in the production according to the tasks of the specified form;

- work games - acquiring professional skills by imitating professional activity processes, staging, playing roles;

- glossary - brief explanation of terms on the given topic.

- group project - collaborative project work of 3-5 students;

- accounting work

- graphic and calculation works written on the basis of established methodological manuals, which are usually carried out in technical sciences (engineering graphics, electrical engineering, information technologies, etc.);

- course work - written and calculated works written on the basis of the methodological manuals on the problems of a science or complex of sciences (enterprise economy, fundamentals of management: ecology and environmental protection, civil protection, etc.);

- course project - calculations written on the basis of the specified methodological manuals with attached graphic drawings performed on the basis of the specified methodical manuals on the problems of a science or complex of sciences (technical mechanics, technological processes and devices, subjects in which project works related to the specialty are performed);

- diploma project - a design work written on the basis of established methodological manuals, which is aimed at the design of a production enterprise or its department on a given subject related to the subject of specialization, explained with graphic drawings and calculations;

- internship report - a report written on the basis of methodological manuals on the completed qualification internship (acquaintance, production, pre-graduation internships);

- participation in science clubs - preparation of demonstration materials such as models, slides, samples by the student in the science club:

- participation in competitions - the student's participation in various competitions under the scientific guidance of the teacher ("Young inventor", student startup projects, etc.);

- participation in science olympiads - participation in science olympiads held between HEIs (chemistry, general chemical technology, physics, information technology, etc.);

- lecturing at scientific conferences - lecturing at scientific and technical conferences held at HEIs, Republican and international levels on the topic of scientific research related to science;

- publication of scientific theses and articles - publication of theses in collections of scientific conferences and articles on the topic of scientific research in scientific journals;

- participation in the preparation of educational and methodological materials - participation in the preparation of textbooks, study guides, methodological manuals, methodological instructions and other educational and methodological literature;

"In the time standards for calculating the educational workload of professors and teachers of higher education institutions, the following types of independent work of the student under the guidance of the teacher are standardized:

1. Supervise course work and course projects and give advice on them; 2 hours are allotted for one CW (Course work) and 3 hours for CP (Course Project). Also, one professor-teacher can guide and advise up to 50 students during one semester.

2. Checking, giving advice, writing reviews and accepting the control, calculation and accounting work provided for in the sample training programs; 0.3 hours per assignment, but: maximum 1 hour per subject. One professor-teacher can be attached to up to 3 academic groups.

3. Supervising the practices of undergraduate students, checking and evaluating their reports. 0.5 hours per working day is set for each student undergoing qualification practice. In this case, 6 hours per working day for 1 academic group, 3 hours per day for 1 academic group in the area where the educational institution is located, and 6 hours outside the area are set for production and pedagogical practice management. In individual internships, 2 hours are allocated for one student for the entire internship period. The workload for this type of work should not exceed 20% of the academic work load of a professor.

4. Supervising the graduation qualification work of undergraduate students, writing conclusions; 25 hours for each student per academic year, and 30 hours for technical courses. Up to 7 students are assigned to one professor-teacher in one academic year.

5. Supervision of scientific-pedagogical activity and practice of master's degree students - 50 hours for one student per academic year. In this case, a professor or doctor of science can lead up to 5 students, associate professor, candidate of science and specialist - up to 3 students.

6. 50 hours for one student per academic year for supervision (scientific consultancy) of master's thesis and research work of a master's student. In this case, a professor or doctor of science can supervise (scientific consultancy) the master's thesis and internship of up to 5 students, associate professor, candidate of science and specialist - up to 3 students.

7. Scientific consulting for doctoral and independent researchers in higher education institutions. 100 hours per academic year for a doctoral student, 50 hours per academic year for an independent researcher. A professor, doctor of science, associate professor, candidate of science can advise up to 3 doctoral students and independent researchers at the institution of higher education where he works [4].

Of the above-mentioned types of independent work, time standards are not provided for problem solving, abstract writing, colloquium, essay, presentation, case study, work games, glossary, group project, etc. Because methodological instructions and recommendations are developed for them, and advice can be implemented in audience training (lecture, practical, seminar, laboratory).

The ECTS system also offers a number of advantages to universities. For example, it ensures the similarity and uniformity of educational plans, which clearly reflect information about the educational process in a certain educational direction and section of specialties. Also, in order

to achieve the recognition of the degree of specialization, it allows to agree in advance the content of the programs in higher educational institutions that receive and send the student. The responsibility and independence of the student in solving all issues related to education is preserved. In the European education system, courses and the entire educational process are counted in credits, and in Uzbekistan and other CIS countries, they are counted in academic hours.

According to the ECTS system, each higher education institution independently determines the composition of credits, the number of credits for each module, as well as the total amount of credits that must be accumulated by the student to complete each course and the study period in general.

In contrast to the current teaching procedure, in the credit system, in addition to compulsory subjects, optional subjects are also included in the student's individual lesson schedule. Students will not be expelled or suspended from a course. If he fails to collect the specified credits in any subject (course), he will retake the exam only in that subject. A diploma of higher education is awarded after the collection of specified credits.

According to the ECTS system, the number of credits that students must accumulate in one year is 60. Assuming that one academic year consists of two semesters, a student must accumulate 30 credits in each semester. If the bachelor's program is 3-4 years, the student must collect 180-240 credits in total to obtain the bachelor's degree, and 60-120 credits to complete the 1-2-year master's program.

The introduction of the credit-module system is an important factor in the cooperation between the teacher and the student. In modular education, the pedagogue organizes, manages, advises and checks the student's learning process. And the student moves independently towards the directed object. The greatest emphasis is placed on independent education of students.

The importance of independent education in the educational process increases, and this will lead to an increase in the independence, creative initiative and activity of specialists in the future. In the credit-module system, university students always have the opportunity to receive help and advice from teachers and fellow students. This strengthens mutual cooperation and serves to form teamwork skills.

The transition to the credit-module education system increases the commitment and demand for professors and teachers of the higher educational institution. As mentioned above, with the modular teaching system, the teacher performs not only the functions of an informant and supervisor, but also the functions of a consultant and coordinator. The leadership role of the teacher is preserved in the pedagogical process.

The credit system of education increases the exchange of students. Because the credits received at one university are taken into account at the other, and students can transfer from one university to another without losing credits. It is this system that allows Uzbek students to continue their studies in advanced foreign universities and to remove complex bureaucratic obstacles.

That is, it does not mean that this system is fully compatible with our worldview, conditions, and values aimed at raising a mature person. Therefore, it is necessary to change the views of professors and students, who are active elements of the educational process, to inculcate the requirements of this system in them, and to form a unique culture.

If the credit-module system is properly and fully implemented, it can be expected to bring a lot of positive features to the higher education system of our country. In particular, the introduction of the world-recognized perfect measurement unit of education into the higher

education system of our country, the emergence of balance and standards in the educational programs of HEIs, the transparency of the study process at HEIs, the formation of educational programs based on the economy, labor market and students' needs, the quality of lessons serves to improve and finally each student has in a certain sense his own independent curriculum.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan dated October 8, 2019 No. PD-5847 "On approval of the concept of development of the higher education system of the Republic of Uzbekistan until 2030". // National database of legal documents, 09.10.2019, No. 06/19/5847/3887.
2. Decree of the President of the Republic of Uzbekistan dated April 29, 2019 No. PD-5712 on approval of the concept of development of the public education system of the Republic of Uzbekistan until 2030. National database of legal documents, 29.04.2019, No. 06/19/5712/3034.
3. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 997 of December 8, 2018 on measures to organize international research in the field of education quality assessment in the public education system. National database of legal documents, 10.12.2018, No. 09/18/997/2289.
4. Order of the Minister of Higher and Secondary Special Education of the Republic of Uzbekistan dated September 10, 2018 No. 20-2018.
5. Law of the Republic of Uzbekistan "On Education" // Perfect generation - the foundation of Uzbekistan's development. - T.: Sharq publishing house concern. 2020.-B 23 p.
6. Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No. PF-4947 "On the strategy of actions for the further development of the Republic of Uzbekistan".
7. REGULATIONS on the procedure for preparing a master's thesis in higher education institutions of the Republic of Uzbekistan.-T.: 208.-20b
8. Decree of the President of the Republic of Uzbekistan dated October 8, 2019 No. PD-5847 "On approval of the concept of development of the higher education system of the Republic of Uzbekistan until 2030".
9. Djumayev M.I Musayeva N.X. The development of mathematical abilities in younger students. Science and innovation international scientific journal volume 2 issue 1 january 2023 uif-2022: 8.2 | issn: 2181-3337 | scientists.uz 424-435.
10. Djumayev M.I Formation of mathematical competence in future primary school teachers in the. Educational process science and innovation international scientific journal volume 2 issue 3 march 2023 uif-2022: 8.2 | issn: 2181-3337 | scientists.uz

