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# ORGANIZATION OF STUDENTS' INDEPENDENT STUDY ACTIVITIES: AUDITORY AND NON-AUDITORY

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**Abstract:** Training of highly qualified personnel with modern knowledge and high spiritual and moral qualities, who think independently, is one of the necessary requirements for the development of human capital. In turn, it requires the creation of advanced pedagogical technologies, educational programs and educational materials based on international educational standards that develop the student's independent learning skills. The article talks about how topics that students study independently deepen their knowledge, develop their independent thinking and creative abilities.

**Keywords:** innovative person, independent work, independent study, credit module, interactive methods, CLIL.

# TALABALARNING MUSTAQIL O‘QUV FAOLIYATINI AUDITORIYA VA AUDITORIYADAN TASHQIARI MUHITLARDA TASHKIL ETISH

**Annotatsiya:** Zamonaviy bilim va yuksak ma'naviy-axloqiy fazilatlarga ega, mustaqil fikrlaydigan yuqori malakali kadrlar tayyorlash inson kapitalini rivojlantirishda zarur shartlaridan biri hisoblanadi. O‘z navbatida, talabada mustaqil ta‘lim olish ko‘nikmalarini rivojlantiruvch xalqaro ta'lim standartlariga asoslangan ilg‘or pedagogik texnologiyalar, o‘quv dasturlari va o‘quv-uslubiy materiallarni yaratishni talab etadi. Maqolada talabalar tomonidan mustaqil o‘rganilayotgan mavzular mashg‘ulotlarda olgan bilimlarini chuqurlashtirishi, ularning mustaqil fikrlashlari va ijodiy qobiliyatlarini rivojlantirishi haqida so‘z boradi.

**Kalit so‘zlar:** innovatsion inson kapitali, mustaqil ish, mustaqil ta’lim, kredit-modul, interfaol metodlar, CLIL.

## ОРГАНИЗАЦИЯ АУДИТОРНОЙ И ВНЕАУДИТОРНОЙ САМОСТОЯТЕЛЬНОЙ УЧЕБНОЙ ДЕЯТЕЛЬНОСТИ СТУДЕНТОВ

**Аннотация:** Подготовка высококвалифицированных кадров, обладающих современными знаниями и высокими духовно-нравственными качествами, самостоятельно мыслящих, является одним из необходимых условий развития человеческого капитала. В свою очередь, это требует создания передовых педагогических технологий, образовательных программ и учебных материалов на основе международных образовательных стандартов, развивающих навыки самостоятельного обучения студента. В статье рассказывается о том, как темы, изучаемые студентами самостоятельно, углубляют их знания, развивают самостоятельное мышление и творческие способности.

**Ключевые слова:** инновационный человек, самостоятельное образование, кредит-модуль, интерактивные методы, CLIL.

### INTRODUCTION

The ongoing competition between countries and socio-economic systems in the world’s technology market has turned into a competition to create quality and valuable human capital. Because, in the end, any economic, scientific, technological and similar miracles and “leaps” can be realized only with the participation and help of an army of educated, knowledgeable, inquisitive, enterprising and selfless people - innovative human capital.

***Innovative human capital*** *is an army of workers who carry out production, technology, scientific research, service and any other type of social activity with the latest knowledge, the latest methods and guidelines, and put innovation at the basis of his labor activity.*

Determining the priorities of the systematic reform of higher education in the Republic of Uzbekistan, raising the process of training highly qualified personnel with modern knowledge and high moral and ethical qualities to a new level in terms of quality, modernization of higher education, the concept of development of the higher education system of the Republic of Uzbekistan until 2030 in order to develop the social sphere and economic sectors based on advanced educational technologies is approved, in which the educational programs focus on theoretical knowledge from practical education step-by-step transition to an education system focused on skill formation, raising the content of higher education to a new level in terms of quality, making a worthy contribution to the sustainable development of the social sphere and economic sectors, and finding a place in the labor market establishment of a system of training of highly qualified personnel is envisaged. In Section 1 of Chapter 3 of this Concept, dedicated to “Expanding coverage with higher education, improving the quality of training of highly educated specialists”, the development of mechanisms for transferring curricula of higher education institutions to the credit-module system and gradually transferring them to this

system, developing educational programs based on individual educational trajectories, aimed at forming students' creative thinking and practical skills, forming educational programs in accordance with the interests of students and the needs of personnel customers, independent training to increase the share of teaching hours, students' independent education, critical and creative thinking, systematic analysis, formation of entrepreneurship skills, introduction of methods and technologies aimed at strengthening competencies in the educational process, formation of practical skills in the educational process orientation, in this regard, the wide introduction of advanced pedagogical technologies, educational programs and teaching-methodical materials based on international educational standards into the educational process.

The student's independent work deepens the students' knowledge of the studied subject, develops their independent thinking and creative abilities. All the work in this direction ultimately serves the main task of the higher education system - the training of competitive, mature personnel with high intellectual potential. Young specialists who determine the development of our country will further increase the prestige of our country in the world community and will take the field as a leading link in all sectors of the economy.

**MATERIALS AND METHODS**

The experience of leading foreign countries shows that innovative development requires all members of society, in particular, employees and specialists of various organizations, enterprises and firms, to be able to engage in activities based on innovative knowledge, authority, and the formation of specific practical experience. In modern terms, innovative development requires the formation of an "innovative person".

The phrase "innovative person" means that every citizen of the country is an active initiator and creator of changes in social life, economic development, development of science, technology and technology, and these changes are an integral part of his life principles. This means that every person is required to be able to effectively perform the tasks assigned to him based on his ability, interest, and potential in an innovative environment [1, p. 83].

The minimum requirements of the innovative environment for people are very high, and the most important of them are:

- being ready for continuous education system;
- working tirelessly on oneself;
- engaging in self-study, always striving for innovation;
- to identify the characteristics of analysis, critical thinking, and scientific observation;
- to demonstrate the ability to work in a team;
- demonstrate the ability to be active in a competitive environment, and creative approach to work [2, p. 96];
- *proper mastery of foreign languages for global communication;*

- *to have the ability to communicate freely in languages recognized by the world community as international languages*.

In order for the above-mentioned minimum requirements to be effective, the teacher will use more didactic materials to develop the student's ability to work independently. Didactic materials include materials such as problematic, interesting questions, creative tasks, projects, games, crosswords, etc. aimed at developing students' independent and creative work and thinking skills. They also include handouts, cards, questionnaires, instructions, and technological maps for organizing practical work used by the teacher in the teaching process. When developing didactic tasks and materials, the following should be paid attention to:

- Focusing on problem-solving;
- Guiding towards conducting research;
- Emphasizing the analysis of various situations and conditions;
- Directing towards performing experiments and exercises;
- Encouraging the search for and discovery of new information [3, p.116].

**RESULTS AND ITS DISCUSSION**

The task of development of an "innovative person" who meets the above-mentioned requirements requires radical modernization of the important directions of the policy in the field of education implemented by the state in our country, especially in the field of higher education.

Today, the educational system requires students to have the ability to quickly and critically analyze, to receive and assimilate a large amount of new information. and requires the formation of features for their effective use taking into account the speed of technological development, the rapid obsolescence and depreciation of acquired knowledge, the pace of structural changes in the economic system,. The knowledge received in the classrooms should be in tune with the times, should not become outdated and remain relevant in the enterprises and workplaces where the student goes as a specialist. It is important to understand that every person who wants to meet the demands of a fast and intense life needs to have the ability to change the type of activity several times, if the situation requires it.

Therefore, the effective use of new, modern methods and tools of education by applying advanced foreign experience to the process of training and educating high-level and versatile specialists is becoming more important than ever. The teacher should not be the only source of learning, but the organizer of the students' independent work process, a consultant, and a manager of the educational process. Today's teacher is required to constantly improve his level, scientific potential and pedagogical skills, bringing them to the level of art. It is necessary to be able to express one's opinion clearly and demonstrably, express one's reaction to the events of the social and economic life of the world and our country, and develop a creative approach to

education. The creative approach of the teacher, in turn, is considered a necessary condition for a positive approach to learning chemistry by the student.

The use of interactive methods of teaching in the educational system is one of the important factors of training competitive specialists. A teacher should not only be a provider of a large amount of information to a student, while having a deep knowledge of his specialty. A new look at the educational process, providing knowledge to students based on an interactive approach is one of the most effective ways of education. In other words, students will easily understand the given materials only when they are actively involved in the learning process. Based on this, today the main methodical innovations require the use of interactive methods to increase the effectiveness of educational activities based on the mutual cooperation of the teacher and the learner.

In order to achieve the expected, guaranteed outcome in a short period of time, to develop students’ skills such as being active, thinking independently, being able to choose the most appropriate among alternative opinions in small groups, identifying problems and sub-problems, listening to the opinions of others, and defending their own point of view is very important for future chemical technologists.

It is well known that the topics covered in the lectures are strengthened in the practical trainings, and practical skills are developed. The teacher’s ability to use time effectively in the course of the lesson, to be able to allocate it correctly, to draw students' attention through presentations, video clips, practical exercises and problem-solving interactive methods, as well as appropriate use of graphic organizers is completely different from the training of the same teacher using the traditional method. The diagram below shows the changes in students’ focus over time. It can be seen that students are in an active position in the interactive method, that is, their attention is focused on mastering the educational material.

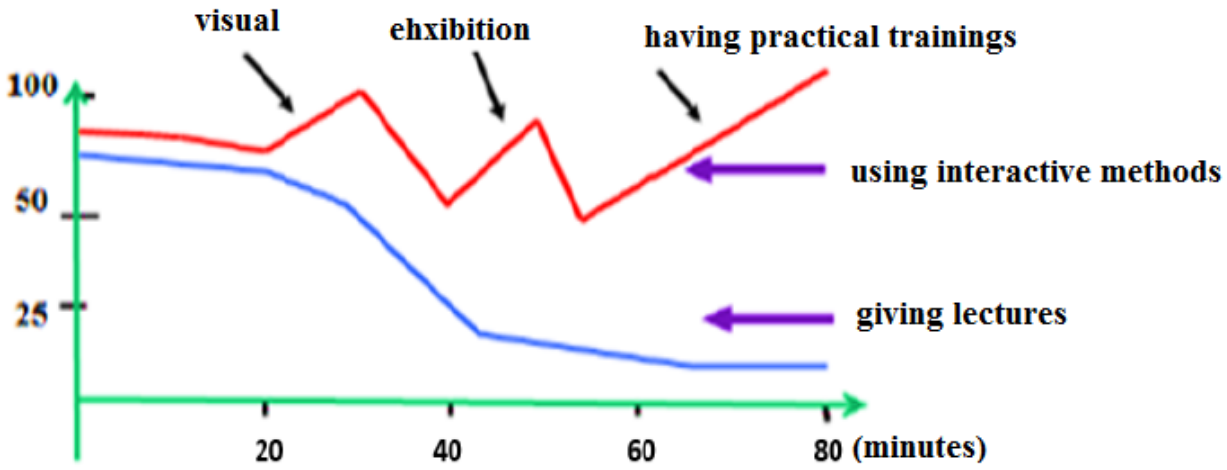


**Figure 1. The change in the learner’s focus over time during the study**

The development of independent and creative thinking among learners has become one of the urgent tasks of education. The independent learning process of students represents their aspiration to expand and deepen their knowledge, improve existing skills and abilities, and master new ones. The main goal of independent learning is to teach students to consistently

work on themselves in shaping their personal and professional qualities and to encourage them to constantly seek and acquire knowledge independently. The primary method of independent learning is individual work with literature. This method develops the ability to find the most essential information in the flow of information, evaluate it, and use this information in one's professional activities. The following forms are used in organizing students' independent work, taking into account the specifics of a particular subject, as well as each student's level of academic performance and abilities:

- independent mastery of certain theoretical topics using educational literature;
- summarizing educational and scientific literature;
- preparing for seminars and practical classes;
- preparing reports and information on assigned topics;
- writing essays covering the most urgent issues of the subject being studied;
- finding solutions to problematic situations;
- organizing independent activities based on Case-Study;
- preparing profession-related projects.

Independent learning of certain topics in the curriculum, homework assignments, preparation for practical and laboratory work, creative and scientific-research works are among the independent works performed outside the auditorium.

In order to check the level of theoretical and practical knowledge of the students, the level of preparation for practical training (practice, laboratory, seminar classes) and the quality of homework, the first type of work usually involves taking control tasks, question-and-answer, interview, discussion, practice tasks, etc.

Independent study of certain topics in the curriculum, completion of homework assignments, preparation for practical and laboratory work, and creative and research work are independent work outside the classroom [4, p. 33].

*The first type of work*, in order to check the level of students' assimilation of theoretical and practical knowledge, the level of preparation for practical classes (practice, laboratory, seminar classes), and the quality of homework, typically involves taking control work, asking questions, answering questions, interviewing, debating, completing practical assignments, etc.

*The second type of work* is carried out in the form of independent search, analysis, assimilation, and completion of practical tasks that require a creative approach to information on the subject, which is studied outside the classroom within the working curriculum of the discipline. The process of completing such work and monitoring the quality of learning are carried out outside of class, during consultation hours. Activities related to the organization of coursework and project work, as well as graduation work, are also included in the list of independent work conducted outside the classroom. Expanding the scope of independent knowledge and studying additional theoretical and practical material is linked to the acquisition of professional skills and the ability to work independently in production.

It is necessary to look at literature not from the point of view of independent work with it, its reading and understanding, memorization, but from the point of view of finding and systematizing, analyzing materials necessary for solving certain educational issues (for example, solving a problem, a course project and a final work project). The task of library-research paper, coursework and graduation papers is to practically reinforce theoretical knowledge acquired in specialized subjects by acquiring independent knowledge. Students perform coursework or graduation work, which is carried out simultaneously with drawing, calculation, and analysis, and is carried out independently based on advanced methods of research and forecasting. The advantage of this activity lies in the fact that it encourages students to engage in creative activity, to explore new solutions, to think, and to develop new solutions [5, p. 7].

Independent work conducted outside of the classroom using the project and case-study method is widely used in foreign practice today. After getting acquainted with the aforementioned type of activity related to the organization of students' independent activities outside the classroom, it is possible to present this type of task to the listeners.

**CONCLUSIONS**

As mentioned above, the formation of independent learning and knowledge-seeking skills in students through the use of various innovative pedagogical technologies and techniques is the right decision in various problematic situations that may arise in their future professional activities. It is natural that acceptance is the foundation for the development of the ability to choose an optimal solution from among alternative options, because in the classroom, the training of practical skills aimed at solving cases and problem situations that are close to real situations is included in the curriculum.

Moreover, considering the increasing attention to the social significance of foreign languages in our republic and the growing daily demand for specialists fluent in foreign languages, it is important to develop skills for future chemical engineers to communicate with foreign partners and freely utilize foreign experiences in their future activities. Considering this, organizing training through the innovative CLIL (Content and Language Integrated Learning) methodology proves effective in providing students with in-depth knowledge, broadly involving them in scientific activities, and developing their skills for independent work with foreign literature related to their field within the institute's classrooms.

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