

# THE IMPORTANCE OF INDEPENDENT EDUCATION IN THE FUTURE TECHNOLOGY SCIENCE TEACHERS IN THE PROCESS OF DEVELOPING THEIR SPECIAL COMPETENCIES

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**Abstract.** *The main share of the development of university education at the world level is the independent work of students, and the main focus is clearly observed in the trend of transition from teaching to learning. In this regard, with the transition to a competency-based approach in education, the formation of a system of skills and qualifications for independent work, the need to cultivate a culture of independent work in students, and the low proportion of independent study hours in the higher education system, independent education in students, Proposals and recommendations for introduction of methods and technologies aimed at strengthening critical and creative thinking, systematic analysis, lack of entrepreneurial skills, organizational ability of students in the educational process, and introduction of technologies were developed, conclusions were presented.*

**Keywords:** *independent education, pedagogical technology, pedagogical skill, interactive methods, technology, technological education.*

In Chapter 3 of the Concept of the Development of the Higher Education System of the Republic of Uzbekistan until 2030, entitled "Strategic Goals and Priority Areas of the Development of the Higher Education System", § 1, entitled "Expanding the coverage of higher education, improving the quality of training of highly educated specialists" increase, students' independent education, critical and creative thinking, systematic analysis, formation of entrepreneurial skills, introduction of methods and technologies aimed at strengthening competencies in the educational process, directing the educational process to the formation of practical skills, in this regard, advanced pedagogical technologies based on international educational standards to the educational process, in the issues of "wide introduction of educational programs and educational methodological materials" the necessary competences of specialists, creative creativity, research, logic, through continuous improvement of independent work skills Special attention is paid to the development of thinking.

The reforms carried out in the educational system today are aimed at developing students' independent thinking based on individual educational trajectories, solving problems related to the formation of creative thinking and practical skills in students. A step-by-step transition to the implementation of these tasks is planned in higher education institutions. Among the main problems are the low share of independent study hours in the higher education system, the lack of formation of independent education, critical and creative thinking, systematic analysis, entrepreneurship skills in the students, the lack of organizational skills of students in the educational process, the introduction of methods and technologies aimed at strengthening competences are not in line with the needs of the times.

In the modern educational process, independent work in addition to the audience, development of analytical skills, control and planning of study time, development of skills and competencies of rational organization of educational work, independent search for necessary information, creative perception and understanding of educational material in the audience, and provision of various forms of educational activity of students in the audience is considered as a form of educational organization capable.

Therefore, independent work is a form of organizing the educational process, which stimulates students activity, independence and interest in learning.

Independent learning is an important factor in becoming a mature professional. This is especially evident in the vocational training system. Our ancestors also attached importance to the young generation's acquisition of a profession, becoming a mature, well-educated, development-serving person.

The great scholars of the East emphasized the importance of hard work and the acquisition of a profession in their works. Great thinkers such as Muhammad al-Khorazmi, Abu Ali ibn Sina, Al-Farghani, Ahmad Yassavi, Yusuf Khas-Hajib, Sheikh Najmuddin Kubra, Bahovuddin Naqshbandi, Abdurrahman Jami, Imam al-Bukhari, Ahmad Yugnaki and Alisher Nawai emphasized hard work, constant research on oneself, who glorified the profession.

The great scholars listed above have emphasized the importance of independent research in the pursuit of a profession, as well as glorifying the pursuit of a profession in their lives and creative activities.

Organization of independent education as a pedagogical problem V.I. Zakinov, S. Matchanov, Z. Nishonova, T. Niyazmetova, J. Tolipova, O'.Q. Tolipov, B. M. Turdibaeva, N. Khalilov, Sh. Sharipov, Sh. Yunusova and others have researched in their works.

Positive features of independent work and independent education, from scientists: V.I. Andriyanova's teaching of independent work in the Russian language class in the 5-6th grades of Uzbek schools, O.B. Berdieva's method of forming students' independent work skills and competencies in geometry education, E.I. Zakinov's pedagogic principles of organizing independent work in grades 6-8, O'.N. Sultanova's method of organizing students' independent educational activities in physics, O'.Q. Tolipov's pedagogical technologies of developing professional knowledge, skills and competencies of young people in the vocational education system, Sh. Sharipov's pedagogical foundations of forming inventive creativity in students, N.A. Muslimov and O.A. Koysinov's theory and methodology of organizing independent education in training teachers of vocational education, Sh. Yunusova's formation of students' independent educational activities, Z. Nishonova, J. Tolipova and N. It was considered in Khalilov's research on forms of independent education.

F.A. Disterweg, considering the idea of developing students' mental powers, noted: "Development and education cannot be given and delivered to any person. Everyone should achieve this by personal activity. "What a person does not own independently is not considered his."

L.V. Golish and D.M. Fayzullaeva in their scientific research studies have justified the need for successful planning, organization, monitoring and evaluation of each of the elements indicated in the system of their activity by learners in performing independent work.

Studying the scientific-pedagogical research works of M. Barakaev, he states that "Independent education is a form of education in the higher education system, in which educational

activities are managed by a pedagogue, assignments are given, advice is organized, and implementation is monitored."

The majority of pedagogical scientists consider the issue of activation of the process of organizing independent education as a general problem. In particular, in some of the works in this regard, it is noticeable that the organization of students' independent education is approached from a personal point of view. In this case, independent education is considered as an important factor in the formation of a person who is active, who strives to achieve high results in improving his professional skills in education, and who comes from the needs of society in the work of choosing and acquiring the pedagogic profession.

In order to organize independent education, not only interest in a certain profession or field of activity, but also the existence of the ability for this type of activity is required.

Taking into account that independent education is controlled by the person himself, with this activity, a person can freely and at any time choose the resources and use them from the point of view of purpose, means, and content.

Autonomy in independent learning is the ability to determine and choose educational goals, principles, content, methods and tools, to implement them without difficulty and without the help of external influences.

Since independent education is directly related to independent thinking, it is appropriate to mention the definition given to it: "Independent thinking is a person's intellectual capabilities based on his knowledge and life experiences, defining the goals and objectives of the problems before him, using different ways, methods, tools. is a mental activity consisting of independent decision-making at the level of.

The formation of independent work skills in young people can be implemented in the teaching of various educational subjects. For example, mathematicians S.I. Demidova and L.O. Denisheva defined independent education as follows:

"The content of the independent work of the students by the teacher, the active organization of independent work, the fulfillment of the didactic goals set before them, and the time specially allocated for it is understood. It is the process of generalization and systematization of knowledge search, understanding, strengthening, formation and development of skills and qualifications.

This definition mentions the characteristics of activity: activity, systematicity, goal orientation, independence. However, independence is mentioned as an aspect of self-directed learning. Independent thinking can be part of learning.

It is necessary to form the interest and ability to acquire independent knowledge in the future teachers who are studying in the field of technological education as a factor that encourages the improvement of pedagogical culture. Pedagogical improvement, deepening of professional knowledge and professional development are required from future teachers who are studying in the field of technological education as an important factor in solving the problem.

Students determine the goals and tasks that make up the content of independent education, depending on the strength and motivational reasons that arouse interest in independent education. This can be expressed as follows:

1. Political independent education, modern reality and the attitude towards them, which are considered important in conducting independent activities;

2. Professional independent education in the preparatory period aimed at carrying out activities in the chosen direction, mastering the student's independent education;

3. Independent education directed to further study of educational subjects, personal-life plans, personal interest;

4. Independent education related to the development of one's talents and hobbies.

5. Independent education aimed at training one's own character.

Professional independent education is the main factor in the development of a person and serves as a description of his ability to work independently in his future activities. The content of independent education will depend on the ability to find opportunities for independent education, not directly affecting the nature of work, but indirectly. Self-directed learning is a means of determining the student's path in the future, and allows the student to assess his own capabilities. Although the student does not have a clearly expressed need, every person definitely has a non-biological need to satisfy himself, to express himself, to show his existence.

The future teacher of technological education should direct the activities of independent improvement of his knowledge to a specific goal and in order to achieve this goal, he should comply with the following conditions.

1. The content of independent improvement of one's knowledge should be adapted to the specific conditions of the training workshop of the educational institution, the conditions of the practice, and the requirements of the pedagogical practice in the future technological education specialty.

2. The future teacher of technological education should develop the following qualities based on a certain goal and in a certain order:

- to deeply feel and understand the aspirations and interests of students, to be able to take into account their spiritual needs;

- establishing an emotional connection with students, actively influencing aspects of their mental, moral and practical activities.

3. The future teacher of technological education must independently study the list of questions on general pedagogy, psychology, occupational hygiene and physiology, technical and technological sciences.

4. The future teacher of technological education should choose the most effective methods and ways of the work system to improve his pedagogical skills, and work with the correct selection of technological processes and technical objects.

5. Taking into account the specific conditions and in accordance with them, it is desirable for the future teacher of technological education to use the forms of improving his knowledge individually or together with the team, to perform practical exercises.

6. It is necessary for the future teacher of technological education to organize the improvement of his knowledge in the form of constant creative research and to direct it to a certain goal.

We reviewed the opinions and definitions of the above-mentioned research scientists about the processes of organizing independent education and the tasks, goals and conditions of the future technological education teacher in this regard. Based on the content of our research, we will consider the scientific-methodical importance of independent education in the development of special competencies of future teachers of technological education in the design of sewing products on the example of the subjects "Technological education" direction "Technology education practicum" and "Technical creativity and construction (design and modeling of sewing products)". The purpose of forming the special competence of the future technological education

teacher in the study of the subjects "Technology education practicum" and "Technical creativity and construction (design and modeling of garments)" is to create a qualified person who has fully mastered the processes of designing garments, along with a number of tasks to be performed in technological education. is to create the conditions for the formation of a specialist and competent teacher of high technological education. Taking into account that the main hours of these subjects are hours of practical training, a lot of time is needed for the student to complete the tasks of practical training. Naturally, in order to become a mature specialist in his field, a student must constantly research on himself and be able to independently perform design processes. For this, the student should either improve his professional skills in extracurricular processes, or improve his knowledge again.

The role of independent education is incomparable in the formation of a future teacher of technological education as a mature specialist, in achieving success in the field of work in the future.

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