

## Modern techniques in organizing the individual work of students- future teachers

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### Abstract

The ability to organize one's independent work is the key to successful professional activity in the future. The purpose of this study is to develop a system for organizing students' independent work, taking into account their individual characteristics and ensuring the required level of practical training. The research works in the context of the experience of students-future teachers of social sciences, humanities, and fine arts in the formation of their ethno-artistic culture. The main methods for achieving this goal were comparison, systematization of the obtained material, and applying critical thinking skills. An analysis of the experience of higher educational institutions in Europe and the United States was carried out; the essence, duration, and practical orientation of students' self-study were systematized. It has been determined that the organization of students' independent work can be divided into the following components: subject learning, practice-oriented learning, student research work.

Keywords: Critical thinking; education reform; future teachers; humanities; independent learning.

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## **1. Introduction**

A large number of different types of self-study courses in the preparation of future professionals, including in the field of teaching social and humanities disciplines and fine arts allows students to acquire deep knowledge, skills, and critical thinking abilities (Dumitru, 2019) to quickly and effectively cope with the professional environment, society, and continuous independent learning. Sharing the goals set out in the declaration, the European countries have adopted its basic principles and provisions for implementation. The direction of the various reforms of higher education initiated in Europe at this time shows the effectiveness of the measures proposed in the declaration.

### **1.1. Conceptual and Theoretical Framework**

To develop effective measures for the implementation of declaration provisions in Russian and Kazakh higher education institutions, it is necessary to analyze the experience of countries with educational systems similar to the one in Russia and Kazakhstan. For this purpose, models of organizing education in such countries as Poland, France, Austria, and the USA were analyzed. UNESCO's (the United Nations Educational, Scientific and Cultural Organization) concepts are also aimed at improving the organization of the educational process (UNESCO, 2020). The provisions of the Russian Federal State Standards are focused on the provision of high-quality theoretical knowledge and the organization of practical training for students. Effectively organized independent work contributes to the ability to apply knowledge in practice, acquire appropriate competencies, and develop critical thinking skills (Rybalka, 2015). The same standards in the European and US education are focused on training and adapting students to market conditions, especially when it comes to freelance jobs (Bille & Jensen, 2018).

The organization of independent learning is a process of implementing an ordered and coordinated system of actions of a teacher and a student based on critical thinking and the assessment of practical activities. Thinking critically means being inquisitive, use methods research, formulating questions and conducting a systematic search for answers to them. (Ulger, 2018). This is the process of creating a system of all elements, including psychological, of organizing educational activity. This process provides the necessary external conditions for independent learning using modern approaches and techniques in accordance with the characteristics of students to achieve strategic, tactical, and operational learning goals at a general scientific and professional level. An independent system of students' educational activity should be created as an organized set (Holmuratovich, 2019).

### **1.2. Related Research**

Through independent learning, students can master the necessary skills and knowledge in accordance with the requirements of higher education institutions and potential employers. Improving the quality of student learning is a central issue of many studies. The independent work of students has been comprehensively studied in such studies:

- on philosophy (Rybalka, 2015; Smoleusova, 2016);
- on pedagogy (Koldina et al., 2017; Kutepova et al., 2017);
- on psychology (Abulkhanova-Slavskaya et al., 2018).

In these studies, the issues of organizing self-education, its control, and regulation remain insufficiently studied. Modern research on this issue often considers critical thinking skills as a pivotal structure for the formation of self-control, which also makes possible self-education based on personal motivation (Dumitru, 2019; Ulger, 2018). Strong motivation for self-education also leads to

the formation of critical thinking skills in a student, especially in the process of academic activity (Cottrell, 2017; Muhlisin et al., 2016). This approach does not negate other methods but provides a practical toolkit for the directed formation of the psychological structure and mental basis for a student's independent work.

In the work of Bergman and Wångby-Lundh (2014), the historical features of the emergence of the personality-oriented approach are investigated; theoretical and methodological features of its development are shown. A theoretical and methodological basis for the organization of self-education focused on a person is highlighted on the basis of the study of historical features and the description of a holistic interactive paradigm, which provides a common basis for the development of a modern personality-oriented approach. Semenov (2017) reviewed the experience of economic students in the implementation of practical training. He introduced integrated practical courses in training.

Myhre and Moen (2017) conducted a study on the possibility of combining educational activities with practical training. The study analyzes whether the effectiveness of teaching differs among teachers with different types of formal education. Particular attention is paid to educational programs "Topptrener" based on experience and practice. In the field of arts education, the formation of ethno-artistic culture has a pronounced individualized character, which means that it requires the same combination of practical and theoretical training on the part of a teacher. The necessity and importance of critical thinking skills for students of art specialties find practical confirmation in a number of studies (Bille & Jensen, 2018; Dumitru, 2019; Ulger, 2018).

In the work of Shukshina et al. (2016), the influence of practice-oriented training on the effectiveness of training specialists in various fields was investigated. The necessity of using the information and factual base in practice-oriented situations in the process of independent education of future artists is substantiated. The latter contributes to the development of individual abilities, the creation of conditions for active, fruitful, educational, and cognitive creative activity, and provides for the creative use of organizational forms and methods.

Prosalova and Nikolaeva (2020) analyzed the impact of teaching methodology, strategy, motivation, and character building on the effectiveness of training. As a result of the study, the advantages of a practice-oriented approach were revealed for each of the participants in the educational process (a higher educational institution, type of activity, and students were taken into account). In the process of transforming students into competitive, highly qualified specialists, active interactive forms and methods of teaching play an important role through modern educational technologies of systematization of knowledge that contribute to better mastering of academic subjects. This practice is not widespread in the teaching of social sciences, humanities, and fine arts, but it makes a lot of sense and has been tested in Western countries (Bille & Jensen, 2018).

The problems of the practice-oriented approach were also considered by other authors, such as Korshunova (2019) and Rezer (2020). The researchers argue that the practice-oriented training of bachelors contributes to the professional growth of future teachers, strengthening their professional self-esteem, and the development of the necessary personal qualities for a specialist in the field of social sciences, humanities, and fine arts. A new practice-oriented model for teachers' training is proposed, including their participation in educational events and professional tests during the period of study at a university. Despite a detailed consideration of the personality-oriented approach to self-learning, these works lack a comprehensive system of organizing self-learning.

Holmes and Roberts (2019) investigated the development of a student-centered approach to learning and analyzed the influence of the reflexive process (which transforms cognitively,

emotionally, and practically into experience) on learning. Taking into account the provisions of the Bologna Declaration, the analysis of the competence-based approach to teaching in higher education institutions requires special attention at the present stage. Thus, Tan et al. (2017) analyzed the composition and structure of graduates' competences in the twenty-first century, how they should be studied, taught and evaluated. The paper argues that Singapore's future resilience and economic growth depends on the ability of its people to learn, and therefore transformation of higher education pedagogy and practice was necessary to expand the learning experience and better meet the diverse learning needs of students. This development perspective applies equally to representatives of creative professions and teachers of social sciences and humanities. The policy was aimed at empowering students to develop creative and critical thinking skills.

Competency assessment is always a challenge and can be further complicated when dealing with multidimensional competencies. This issue was disclosed by Cantabrana et al. (2019) in their studies. The paper argues that in line with the goals of the 2020 strategic framework for education and training, educators should link digital age skills or competencies to their professional practice. At the same time, digital competence implies the intelligent, critical, and responsible use of digital technologies for learning, working, and participating in the life of society. Similar studies were conducted by Allan et al. (2017), Maiier (2017), Nurmukhanova et al. (2014).

Thus, the underestimation of the role of self-organization, in the course of which knowledge is acquired in a specialty at a particular workplace, is often a consequence of the inability to creatively apply the acquired competencies in practice. This, in turn, complicates the process of adaptation of graduates in an enterprise, reduces the quality of their work, and also leads to a decrease in the possibilities of effective presentation of creative products on the market. At the same time, the problem of organizing education lies in the plane of versatility at the intersection of education, psychology, pedagogy, and teaching (Rybalka, 2015).

For the formation of a competence-oriented concept of the organization of training, it is necessary to allocate the competencies necessary for graduates to increase their competitiveness in the labor market and opportunities for self-realization. At the same time, this process should be multifaceted, which will include not only a student and his/her learning needs, but also teachers and employers. Thus, training will contribute not only to the acquisition of knowledge but also bring a student as close as possible to his/her practical activities. As a result, a system of techniques and approaches to self-study of students should be obtained as an organized set.

### **1.3. Purpose of the Study**

The research hypothesis is based on the assumption that the effectiveness of self-study of students-future teachers of social sciences, humanities, and fine arts underlies personal motivation, focus on innovative technologies, critical thinking skills, and educational strategies. The object of the research is the principles, techniques, forms, and methods of organizing students' independent work and acquisition of critical thinking skills. The subject of the research is the relationships that arise between the participants in the educational process in the process of organizing such independent work. The purpose of this study is to develop a system for organizing students' independent work, taking into account their individual characteristics and ensuring the required level of practical training.

Based on the purpose of the study, the following tasks can be distinguished:

1. to investigate the essence of organizing independent work of students-future teachers of social sciences, humanities, and fine arts;

2. to highlight the basic principles of organizing students' self-study;
3. to form a model of the self-learning process and the role of critical thinking skills in the process of self-learning of students-future teachers;
4. to highlight the main forms and innovative techniques of students' independent work;
5. to analyze the limitations of the introduction of innovative techniques for organizing students' independent work.

## **2. Methods and materials**

### **2.1. Research Model**

To create a system for organizing students' self-study, the experience of organizing self-study and mastering critical thinking skills in higher educational institutions in Europe and the United States was studied, after which the results were presented in the form of a table. To do this, the study used the method of literature review (Snyder, 2019). Combining the results and points of view of many empirical data, the literature review helps to address research questions and becomes the basis for comparison and the formation of their own. It consists in reading and analyzing the literature on the topic. Also, the methods of comparison, systematization of the obtained material, and applying critical thinking skills were used. These methods in combination made it possible to achieve recommendations for the educational process applicable in practice.

### **2.2. Participants**

The participants in this study should be defined as university students in Europe and America who were involved in the development of other researchers. With the help of knowledge about the experience of Polish, French, Austrian and American students, our model of individual education was developed. The positive and negative aspects of these models were taken into account in the analysis and development of an improved model.

### **2.3. Data Collection Tools**

Researchers manually found, collected, read and processed literature sources on the topic. For more convenient further analysis, the information was collected in the table. They were formed into table according to the following criteria: organization of self-study, its duration, and methods of practical training.

### **2.4. Data Collection Process**

After generalization, practical results were obtained. Based on these data, at the next stage, the researchers cultivated an algorithm for the formation of a student's individual ability to work independently. Then the components of self-study of students-future teachers were developed. They are presented in the form of figures.

### **2.5. Data Analysis**

As a generalization and systematization of the peculiarities of organizing students' independent work, a model of a self-study process (with the acquisition of critical thinking skills) has been developed. This model consists of three blocks that correspond to the components of self-study. The content of the model includes the essence of self-learning, the forms, and techniques of its organization, as well as technical means of support. Self-learning should result in acquired competencies.

The implementation of this model may be subject to some restrictions. It was revealed that the main ones may be differences in the perception of self-learning by the subjects of the educational process - a teacher and a student. Besides, the limitations of the study may be differences in the level of technological development in individual countries and even in certain regions of a particular country.

### 3. Results

The use of practice-oriented, personality-oriented, competence-oriented approaches in the process of teaching is one of the means for the effective organization of independent work of students-future teachers of social sciences, humanities, and fine arts. Competence-based training is focused on the development of personality, critical thinking, independence, and responsibility for the decisions made. The standard of such an approach is making informed decisions in various life situations, the ability to assess one's own capabilities, and a responsible attitude to one's life, work, and interaction with other people.

Such training aims at graduates' social adaptation to the conditions of the labor market and competence in a personal attitude to life. Russian students lack the ability to develop many important skills, such as using keywords to find information, analyzing the research process, forecasting, interpreting scientific data and research data, as well as some basic critical thinking skills (Muhlisin et al., 2016). A problem arises in correlating life experience with the system of knowledge acquired at school. Therefore, in recent years, due to the introduction of methods based on systematic activities and skills, the modern higher education system is aimed at major changes. In order to find the most effective way to implement changes, it is necessary to analyze the successful experience of leading higher educational institutions in Europe and the United States. Table 1 presents an analysis of the experience of higher educational institutions in Europe and the United States with regard to the development of techniques for organizing students' independent work.

Table 1. Characteristics of organizing students' self-study (summarized by the authors)

Country	Organization of self-study	Duration of self-study	Practical training
Poland	Teaching is carried out in Polish or Russian at choice. To enroll in a number of specialized higher educational institutions, entrance exams for knowledge of the Polish language are not required (free Polish language courses are provided for applicants).	The bachelor's degree lasts 3 years, which includes fundamental training. The master's degree lasts 2 years, which includes vocational training.	In Poland and other EU countries (Denmark, Italy), paid internships are provided for students (from 400 to 1000 euros per month), along with housing and food. Therefore, graduates are highly competitive. Among students, 80% are employed immediately after graduation, and some continue their studies. A university, in addition to employment, may also help graduates to start their own business. For this, all the necessary certificates and licenses are provided. Critical thinking skills, as a rule, are



France	<p>The French educational process is aimed at ensuring that students can study on their own. Thus, the teaching of each topic is carried out without any supervision, and students are expected to study each topic independently. Knowledge control is carried out only during the final exam.</p> <p>In France, 95% of universities are public where students can get education for free.</p>	<p>In France, the higher education system is flexible and mobile. Education in higher educational institutions is divided into three stages (cycles), and each stage ends with the receipt by students of the corresponding diploma.</p> <p>The initial stage (first cycle) of general education lasts two years. During this period, the general disciplines are taught. At the end of the stage, a general university degree (university diploma) is awarded, indicating the relevant field of study.</p> <p>The second stage implies, in fact, basic knowledge or a combination of basic knowledge and professional knowledge.</p> <p>The third stage of training is full-fledged professional training according to the requirements of employers. This training is complemented by research activities. Appropriate professional experience is required to move to this stage.</p> <p>If a professional course is chosen, then one year of study will end with a continuing education course (DESS), if a professional course is chosen, it will end with a diploma course.</p>	<p>taught in the form of a special course or a separate section within the framework of the studied discipline.</p> <p>One does not need to take an exam to apply for a Master's degree in France - students are admitted on the basis of their academic ability, including previous semester grades, motivation letter, and resume. Even in the fourth year of study, before completing a bachelor's degree, it is possible to apply for a French master's degree. One does not need to attend any preparatory courses. In France, internships are provided for master's courses, and they often become the first job of students.</p> <p>Students are allowed to work within 60% of the total working time. This right will be immediately written into a student's visa, which is also a residence permit. Critical thinking skills are taught in separate courses within specialties.</p>
Austria	<p>Studying in Austria is practically free. Students who are EU citizens are expected to pay a student fee of 18 euros per semester. For</p>	<p>In Austria, the organization of higher education differs from the education system in Russia, and the duration of the educational process may be</p>	<p>One of the significant advantages of Austrian education is a large amount of practical training in the curriculum. In Austrian universities, a curriculum is</p>

	international students, a small nominal fee of €363.36 per semester may be charged. To motivate students to achieve good academic performance in six semesters (for undergraduate programs) or four semesters (for graduate programs) and complete the curriculum, they can be reimbursed 80% of the tuition costs.	slightly longer than the established study time. The course time depends on each student and his/her ability to self-organize, process large amounts of information, and effectively assimilate the material. After completing secondary school (general education), students can enter a university. A university offers bachelor's, master's, and doctoral degrees.	50% theory and 50% practice. In addition, generally speaking, half of the teaching staff consists of senior management (heads of companies, etc.). The development of critical thinking is integrated into most of the courses in their practical and theoretical part.
The USA	The undergraduate degree lasts 3 years, which includes fundamental training. The master's degree lasts 2 years, which includes vocational training.	The educational process includes lectures. In addition, a student's personal page is created on a special student portal; homework, tests are performed for each course. Classroom activities, such as conversations with teachers, independent work, or group work, are also assessed.	Education is practice-oriented. Students can independently choose subjects and plan their curriculum. Teachers are usually active specialists in the relevant field, respectively, professionals in their environment. Critical thinking skills are taught in a self-guided course.

Analyzing the presented experience of European countries and the United States, one can single out the key components of the successful organization of independent work of students. With the proper organization of independent work, students can acquire self-organization, self-control, self-reflection, critical thinking, and professional skills. The significance of self-training of future specialists lies not only in the assimilation of information about courses and disciplines but also in the formation of the general structure of future professional activities (Cottrell, 2017; Muhlisin et al., 2016).

Independent work is a means of mastering knowledge by students, a tool for the formation of personal activity and independence, the development of their intellect. The formation of ethno-artistic culture, as the most important element of the independent practice of students-future teachers of fine arts, underlies self-identification and the ability to transmit artistic values to students in the course of pedagogical practice. The basic principles of organizing students' self-study can be generalized into an algorithm for the sequence of their formation, in which they complement each other and together have an impact on purposeful, orderly, systematic, and personal development. At the same time, the presented algorithm takes into account the individual commitment and learning ability of each student (Figure 1). The listed principles can be changed and supplemented in accordance with the general learning objectives, the specific conditions of the academic field, the content of independent work, and other indicators. This algorithm is common for any area of study, including art and humanities.



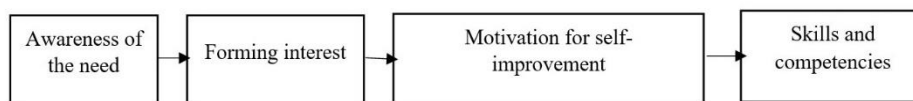


Figure 1. Algorithm for the formation of a student's individual ability to work independently (compiled by the authors)

One of the main tasks of finding techniques and technologies for organizing students' self-study is to provide such results of the educational process that will help a person take a worthy place in modern society and realize him/herself as a person. For this, it is necessary to create conditions for learning that will help to receive not only a high-quality education but also to apply practical skills in the implementation of knowledge and skills. This thesis confirms the concept of UNESCO - education throughout a person's life, which implies that education does not end with the graduation of a higher educational institution, but continues throughout life. Thus, people through participation in seminars, symposia, courses, etc. have the opportunity to deepen, expand, improve their knowledge, skills, and abilities. At the same time, the acquired abilities to organize independent work and self-development are in this case the determining factor (Rebrin, 2012).

The modern education system should be primarily aimed at students' awareness of the need to acquire knowledge and their practical application in the future. Such awareness should be formed not only by teachers in the process of structuring and presenting the material but also by parents and authorities, forming students' commitment to the chosen profession and ensuring its value. As a result, a student develops a sustained interest in acquiring knowledge throughout the entire learning stage and further throughout his/her life by acquiring motivation and improving commitment to learning. All this leads to the acquisition of the necessary skills and abilities by students to use them in their future profession. Taking into account these characteristics, the organization of students' self-study can be divided into the following components:

- subject teaching (organization of students' work);
- practice-oriented teaching (organization of students' independent work, bachelor's final work);
- student research work (organization of independent search activities of students);
- student creative activity (self-organization and help from teachers in creative tasks).

In each of the proposed areas, the authors have determined the most optimal forms and techniques for organizing self-study of students-future teachers (Figure 2). Thus, subject teaching is aimed at shaping students' knowledge about the essence of teaching theory, its laws, principles, methods, and psychological development of students. Practice-oriented education is aimed at obtaining practical skills and experience. Both subject-oriented and practice-oriented learning involve the formation of critical thinking skills in the form of integrated lessons or self-paced courses. Practice-oriented learning can be aimed at organizing educational, industrial, and undergraduate internships with the aim of immersing students in a professional environment to connect their professional concepts with real business needs. Besides, professionally-oriented learning technologies can help to form personal qualities and knowledge that are important for the future professional activity of students and can ensure high-quality performance of functional tasks.

The research activities of university students should be aimed at forming a system of values and a stable relationship between a person and his/her environment. Within the framework of creative and research activities, the practice of critical thinking is consolidated and implemented into practical

forms of student activity. As a result of such an organization, a system of independent educational activities of students should be created as an organized complex. At the same time, the correct organization of independent work will contribute to the acquisition of the necessary competencies, which are aimed at:

- increasing the competitiveness of a specialist in the labor market;
- advanced training and adaptability that subsequently help to reduce unemployment;
- increasing labor productivity.

This assumption is based on the analysis of a competent approach to the organization of quality education, set out in the works (Tan et al., 2017). In this case, the techniques, forms, and methods of education should be as close as possible to the conditions of innovative development of society as a whole.

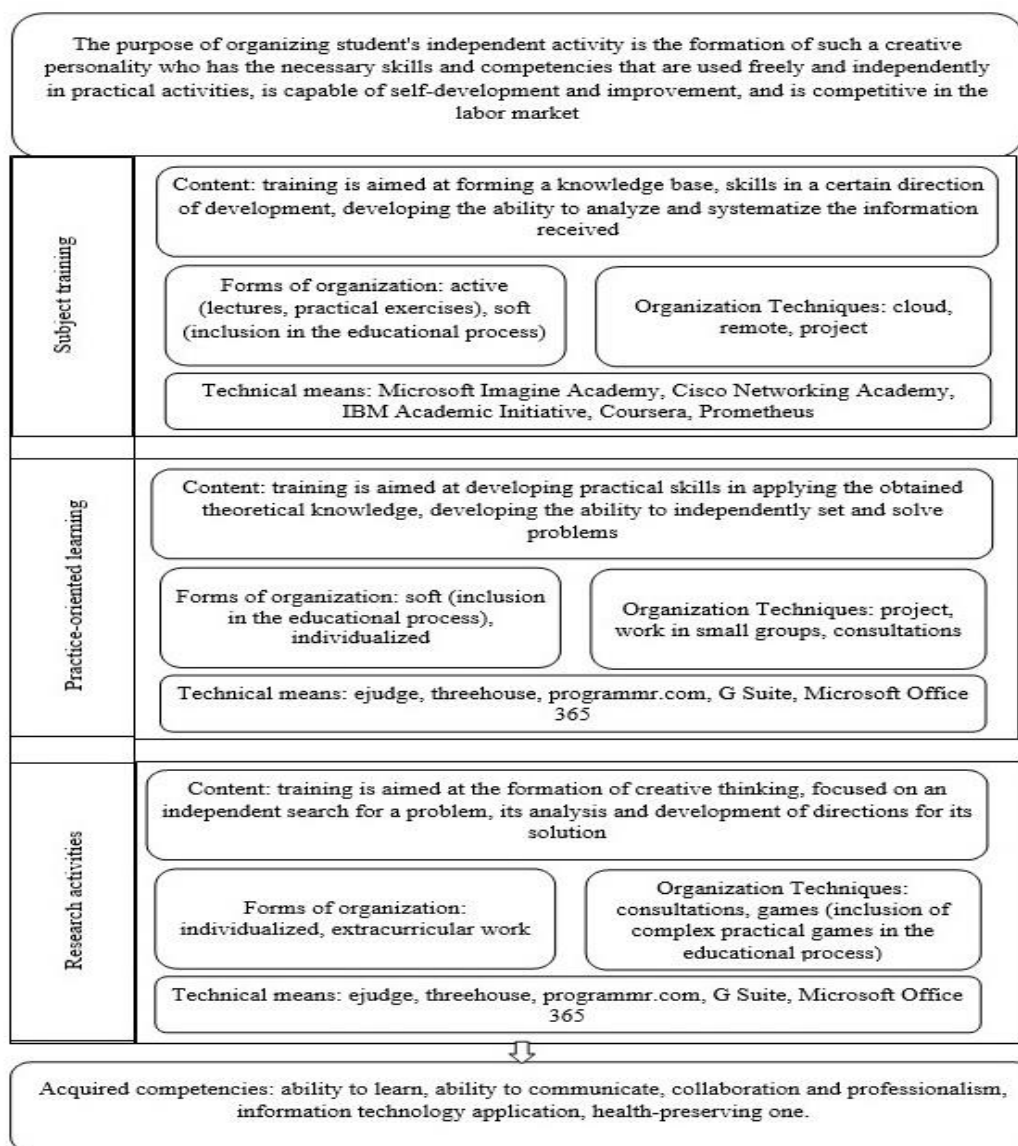


Figure 2. The structure of the process of organizing students' independent work (compiled by the authors)

Thus, a particular technique for the formation of students' independent learning correlates with the conditions in which it takes place (depending on a university, its material and technical base, information and communication capabilities), but it necessarily involves the formation of critical thinking skills. At the same time, the organization of independent work should be aimed at creating conditions in which students can express their opinion and determine the best forms of education and form their life position. This requirement presupposes a developed and educated critical position and appropriate thinking skills (Cottrell, 2017; Dumitru, 2019).

#### **4. Discussion**

The article proposes the process of forming an individual independent work of a student-future teacher, taking into account the skills of critical thinking and the formation of ethno-artistic culture, necessary for the formation of students' ability to use ethnic elements in their work. It has been proved that critical thinking as a component of teaching methods does not prevent students from discovering their own creative abilities. On the contrary, it contributes to the creation of the ability to understand the technology of social manipulation.

The ethnic component also plays a protective role in culture and in the traditional value system. It establishes the continuity of the concept of learning based on "culture among people". It helps to accept people's values and to detect a kind of innovation in virtual learning that destroys people's culture and self-esteem (Bergman & Wångby-Lundh, 2014; Dumitru, 2019; Ulger, 2018). The ethnic component of the personality is extremely important in the professional formation of a future teacher (Korshunova, 2019; Tan et al., 2017).

A comprehensive analysis is required of the organizational characteristics of students' self-study and the main training programs, taking into account the peculiarities and originality of the educational process. The examples of Poland, France, Austria, and the USA showed that there is a difference in the application of teaching methods between schools and universities. Unlike the university system of lectures and seminars, the educational process at school requires continuous and regular preparation for lessons. The first year of university studies is a period of adaptation of students to new learning conditions (the emphasis is shifted to students' independent work, individual tasks requiring an independent search for information, analysis, critical selection), learning to interact in a new team. Therefore, the main task of working with first-year students is the development and implementation of methods for rationalizing and optimizing students' self-study (Gutman & Shklyar, 2016; Koldina et al., 2017).

Experimental verification has demonstrated the high efficiency of using new technical capabilities in teaching in the field of art, provided that adequate methodological pedagogical technologies are used (Seitenov et al., 2020). This is also of relevance for students-future teachers of social sciences and humanities, along with a student's independent activity in the course of training. Molchanov et al. (2016) highlight independent work as an important activity for teaching students a general culture and professional skills. At the same time, many researchers note that the competent use of digital technologies presupposes developed critical thinking skills as a mandatory component of efficiency (Dumitru, 2019; Kuanysheva et al., 2019; Seitenov et al., 2020).

At the same time, it is determined that students' self-study is one of the most difficult forms of university activity. It implies a high level of evaluative activity, fact-checking, data analysis and synthesis, the ability to operate with all the basic skills of critical thinking (Cottrell, 2017; Ulger, 2018). It can be organized as part of an actual course in a classroom under the supervision of a teacher and as an integral part of educational work. In the process of independent work, students will deepen their

theoretical knowledge and, most importantly, practice skills. The main characteristic of independent work outside the classroom is that students can freely dispose of their time when doing homework and should rely on critical thinking in doing so. With regard to the formation of ethno-artistic culture, an important element of self-study is an independent research and information retrieval (Knobel & Kalman, 2016).

A similar study was conducted by Smirnova and Mukhina (2016), who highlighted the creative component of the process of organizing students' independent work. The prerequisite lies not only in the introduction of self-learning but also in the introduction of active methods of education for the acquisition of knowledge, skills, and abilities. This is about increasing the time of independent work for a future teacher's self-improvement. The purpose of increasing the time of independent work is also to teach students the self-development of creative techniques of professional activity.

Students actively participate in the work of the scientific community, scientific conferences, exhibitions, colloquia, seminars, and more. Here the skills of critical thinking become the main means of practical activity of students (Muhlisin et al., 2016; Ulger, 2018). Participants in the cognitive process the right to question the validity or credibility of the information, check the logic of evidence, conclude, construct new examples for its application, figuring out the possibilities of solving the problem, etc.

At the same time, the teaching staff strives to find ways to integrate the educational and scientific research and creative activities of students. The tasks of independent work include elements of search, research, generalization, and presentation of conclusions based on the skills of critical thinking, obtained and practically tested earlier. Such an integrated pedagogical process includes among its elements the technologization of teaching as a means of improving the qualifications of teachers and the constant introduction of innovations in teaching. The approach has been tested by phenomenological research methods, which increases its practical value (Kuanysheva et al., 2019).

Thus, pedagogical innovations in themselves, aimed at changing the organization of independent work of students-future teachers and improving the result obtained in the future, may have certain limitations. For example, in the Canadian experience certain higher education institutions may not be equipped with the necessary amount of material and technical resources, may have low Internet speed or poor coverage (Walder, 2017). Separately, it is necessary to consider the issue of using exclusively licensed programs for organizing the educational process in a higher educational institution.

## **5. Conclusion**

The search for techniques for organizing self-study with the help of the implementation of students' critical thinking skills for the formation of their ethno-artistic culture is the task of not only a teacher but also a student. The essence of organizing independent work of students-future teachers of social sciences, humanities, and fine arts was researched in the article. It means motivation (a sense of responsibility when performing an activity), efficiency (knowledge, skills), analysis, comparison, generalization, will (self-control, self-mobilization), assessment of one's own activities.

Based on the analysis of European and US experience, the following basic principles of students' self-study on forming their ethno-artistic culture and culture of thinking are highlighted: awareness of the need, the formation of interest, motivation for self-improvement, skills and competence. It has been determined that the organization of students' independent work can be divided into the following components: subject learning, practice-oriented learning, student research work. Therefore,

the organization of self-study of students should be considered as a process in which teachers and students implement a routine and coordinated system of actions aimed at achieving educational goals, taking into account critical thinking skills. Based on these principles, a model of the self-learning process and the role of critical thinking skills in the process of self-learning of students-future teachers was determined. At each stage of it, the most optimal forms and techniques of organizing a student's independent work are identified.

The results of the study allow concluding that the main task of organizing students' self-study is to take into account the complex personal characteristics of students. Critical thinking skills are a central part of organizing independent work. Higher education teachers should strive to develop various tools and use effective methods to organize productive independent work of students and their motivation. The development of a system for organizing self-study of students is aimed at eliminating the remnants of the traditional system of organizing educational activities, which assumed an imbalance between the elements of the education system and a smooth transition from school to higher education.

The practical application of the results obtained consists in modeling the system of organizing students' independent work, taking into account the formation of ethno-artistic culture. The system will allow university teachers to form the main innovative techniques and forms of work based on critical thinking. Namely, cloud technologies, distance education, project technologies, work in small groups, consultations, game methods. These technologies can be implemented in the following forms: extracurricular, active, soft, individualized.

Based on the analysis carried out, restrictions on the use of innovative methods of education are formulated, which depend on the higher educational institution and the conditions in which the educational process takes place. This research is limited to a theoretical study of the organization of independent work of students of higher educational institutions. Thus, further research can test the proposed scheme for organizing students' independent work in practice, in specific higher educational institutions, with target groups that will cover various specialties and ways of teaching.

## **6. Recommendations**

The following suggestions have been developed to organize independent work of students:

1. The effectiveness of achieving the maximum result depends on a teacher, his/her skills and abilities in the educational process, and the learning outcome depends on a student's interest in a subject, the desire to be creative, quickly assimilate all the material and a high level of knowledge and achievements. Thus, the process of organizing a student's independent work affects not only him/herself but also a teacher in terms of agreeing and providing forms, methods, techniques, and technologies for obtaining the necessary knowledge.

2. Teachers must have the skills to organize their own activities:

- the selection of the necessary and relevant literature;
- the use and development of methodological recommendations for the study of the material;
- the ability to take into account individual characteristics of each student;
- the ability to select forms and methods of creative work;
- personal qualities (confidence, brevity, clarity in the presentation of the material, and more).

3. Consequently, the organization of self-study of students-future teachers of social sciences, humanities, and fine arts should be a system of systematic and coordinated actions of a teacher and a student to achieve educational goals. This process should also involve the psychological structure of educational activity.

4. Also, it is necessary to have external conditions for independent educational activity in accordance with the individual characteristics of students to best achieve the strategic, tactical, and operational goals of education.

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