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DEVELOPMENT OF PROFESSIONAL COMPETENCE OF STUDENTS FROM A PSYCHOLOGICAL POINT OF VIEW THROUGH CRITICAL THINKING

Abstract

The research deals with the problem of psychological formation of students' professional competence through critical thinking. In this regard the stages of development, and the features of development comprehensively analyzes the psychological features of the student period. The concepts such as "professional competence" and "critical thinking" are justified.

Critical thinking stimulates creative impulses, and not only implements the cognitive process, but also forms the professional competence of students, the problem of planning the educational process based on students' focus on results.

The psychological management of students' professional competence is considered through critical thinking, analysis of scientifically based materials, established bases, principles, methods, components, measurements and indicators that guide the means of monitoring the professional competence of a future specialist.

Key words: *critical thinking, competence, professional competence, formation, activity, factor, future specialist, structure.*

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СЫНИ ОЙЛАУ АРҚЫЛЫ СТУДЕНТТЕРДІҢ КӘСІБИ ҚҰЗЫРЕТТІЛІГІН ПСИХОЛОГИЯЛЫҚ ТҰРҒЫДАН ДАМУ

Аңдатпа

Мақалада сыни ойлау арқылы студенттердің кәсіби құзыреттілігін психологиялық тұрғыдан қалыптастыру мәселесі қарастырылған және студенттік кезеңдегі психологиялық ерекшеліктері, даму кезеңдері, даму ерекшелігі жан-жақты талданған. «Кәсіби құзыреттілік» және «сыни ойлау» терминдерінің маңызы мен мағынасы терең негізделіп көрсетілген.

Сыни ойлау – білімгерлердің творчестволық түрткілерін жігерлендіреді, танымдық үдерісті іске асырып ғана қоймай, кәсіби құзыреттілігін қалыптастырып, білімгерлердің нәтижеге бағытталған заңдылықты негізге ала отырып оқу үдерісін жоспарлау мәселесі қарастырылған.

Сыни ойлау арқылы студенттердің кәсіби құзыреттілігін психологиялық тұрғыдан қалыптастыру ғылыми негізделген материалдарға контент талдаулар арқылы қарастырылған,

болашақ маманның кәсіби құзыреттілігін қалыптастыруда басшылыққа алатын тұғырлар, принциптер, әдістер, компоненттер, өлшемдері мен көрсеткіштері айқындалған.

Түйін сөздер: *сыни ойлау, құзыреттілік, кәсіби құзыреттілік, қалыптастыру, белсенділік, фактор, болашақ маман, құрылым.*

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РАЗВИТИЕ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНТНОСТИ СТУДЕНТОВ С ПСИХОЛОГИЧЕСКОЙ ТОЧКИ ЗРЕНИЯ ПОСРЕДСТВОМ КРИТИЧЕСКОГО МЫШЛЕНИЯ

Аннотация

В статье рассматривается проблема психологического формирования профессиональной компетентности студентов посредством критического мышления и всесторонне анализируются психологические особенности студенческого периода, этапы развития и особенности развития. Обоснованы значение терминов «профессиональная компетентность» и «критическое мышление».

Критическое мышление стимулирует творческие порывы, и не только реализует познавательный процесс, но и формирует профессиональную компетентность студентов, проблему планирования учебного процесса на основе ориентированности студентов на результат.

Рассмотрено психологическое управление профессиональной компетентностью студентов посредством критического мышления, анализа научно-обоснованных материалов, установленных баз, принципов, методов, компонентов, измерений и показателей, которые направляют средства контроля профессиональной компетентности будущего специалиста.

Ключевые слова: критическое мышление, компетентность, профессиональная компетентность, формирование, деятельность, фактор, будущий специалист, структура.

INTRODUCTION

In the state of mandatory standards of education: competence is the ability to use the knowledge, skills and abilities acquired in the educational process in a practical sense [1, p. 4]. In this regard, it is necessary to give priority to students of higher educational institutions, in addition to mastering all types of professional activities, to make research through critical thinking and thus to the problem of forming their professional competence.

The modern education system should not only provide normal, good, basic education, but also prepare creative students who should think about innovation and be constructive. As President of Kazakhstan K. Tokayev in his congratulation to the participants of the August republican council of education workers noted: "Quality education is the guarantee of becoming a competitive, civilized country" [2]. The conclusion to be drawn from this is that formation of professional competence in the current era of globalization is the task of forming a competitive student as a learner who thinks critically and can use innovative technologies for his development from all sides.

The study of the problem of psychological formation of students' professional competence through critical thinking involves consideration of the psychological aspects of the process and creation of an appropriate model of scientific-methodological support as a new form of teaching in higher education institutions, providing the necessary literature.

Exploring the scientists' works and statistical data on the issue of psychological formation of students' professional competence through critical thinking, it was determined that it is recognized at the highest international level.

Scientists who comprehensively considered critical thinking in their works in various fields: C. Temple, J. Steel, K. Meredith [3], D. Kluster [4], D. Halpern [5], R.H. Jonson [6] etc. can pass.

Ways to psychologically form professional competence of students through critical thinking in the educational system have been taken into special form in many studies. Firstly, researchers, pay full attention to the problem of psychological and pedagogical education, and secondly, they try to develop students' professional competence. However, the problem of forming the professional competence of students has an important character in following the leading countries, and the forming a specialist with developed professional competence, psychologically forming the professional competence of students through critical thinking are determined in the strategic tasks of the country and are among the most urgent issues contributed to the writing of our article.

In the concept of the development of higher education and science in the Republic of Kazakhstan for the years 2023-2029, it was emphasized in the state program that the modernization of higher education is carried out from the perspective of competence of global and modern values of the 21st century, and in the context of technological modernization of the economy, the country needs personnel with a universal set of competencies and the ability to think systematically [7]. In this regard, one of the main tasks of our work is the need to prepare students who can psychologically form the professional competence of students through critical thinking and who have a wider range of thinking in terms of their cognitive skills.

Scientists describe the features of the psychological development of the youth period in the following stages: if we consider the student who corresponds to the youth period from a personal point of view, then the period of 18-25 years of age is the period of active development of moral and aesthetic sense, establishment and stabilization of character, and most importantly, it has the character of the social role of an adult. to be: mastering the full range of civil and professional skills [8].

The conclusion from this is that during formation of the professional competence of students through critical thinking at a higher educational institution, students have differences from a psychological point of view between the 1st and 4th years.

Today, the concept of "competence" is considered as the final result of the application of knowledge in the teaching process. In the educational process, the concept of "competence" is the use of knowledge and experience, skills and abilities of students in solving a certain problem. Competencies in the learning process have been given different definitions by scientists.

In the state mandatory standards of higher education; Competence is the ability to use the knowledge, skills and abilities acquired in the educational process in a practical sense in professional activities. In addition, the need to be able to summarize the results of the research that determines intelligence in the requirements for students is indicated [1, p. 4].

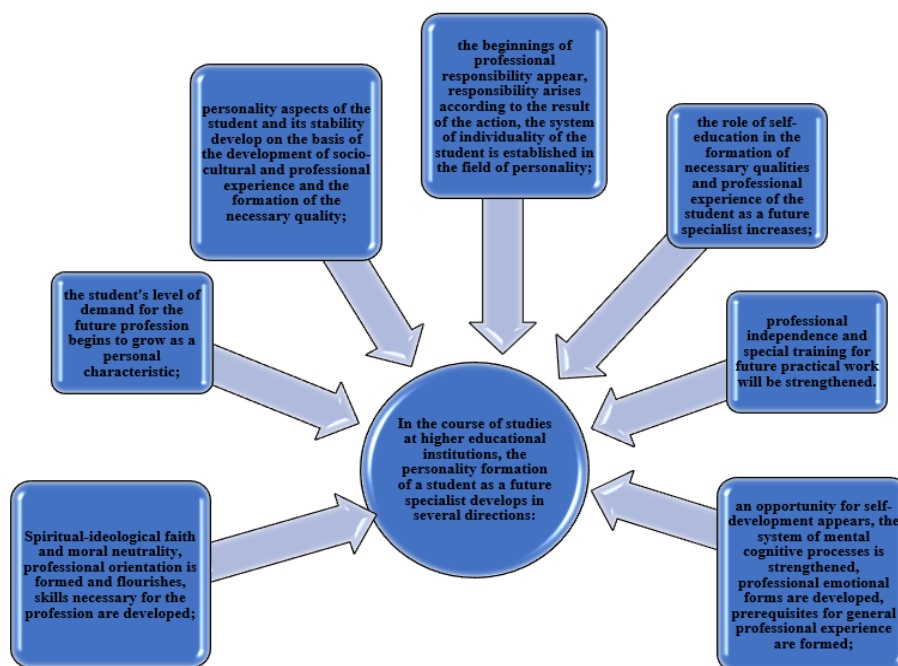
Researcher I.A. Zimnyaya considers competence as "personally conditioned experience in the intellectual, socio-professional life of a person based on knowledge" [9]. In addition to mastering the technology of development of critical thinking, priority should be given to students at higher educational institutions to conduct research by forming their professional competence.

Defining competence, a number of authors consider it mainly as the formation of integral, personal and professional qualities.

Competence is a variable combination of specialist competence. Competence is a structural component of competence, the ability to use knowledge, skills, and personal qualities to successfully serve in a certain field. The definition of competence given by A.V.Khutorsky: "competence is the educational preparation, which includes the complex of the learner's action experience in relation to a certain framework of meaningful-life orientations, knowledge, skills, skills, concrete objects of reality necessary for the realization of socially significant productive activities a given social norm [10]. Analyzing these researches, we notice that competence is considered as emotional stability, extroversion, the ability to combine direct and reciprocal communication, language skills, the ability to listen, the ability to reward, politeness, general ability, and the ability to adapt to the personality of an individual as the main value.

MATERIALS AND METHODS

The time of studying at a higher educational institution coincides with the second stage of youth or the first stage of adulthood, which is distinguished by the complexity of personality formation. The strengthening of conscious motives of behavior is characteristic of moral development at this age. The qualities of purposefulness, perseverance, courage, independence, initiative, and self-mastery, which are completely lacking in the upper classes, begin to strengthen. Interest in moral problems (goal, lifestyle, duty, love, loyalty, etc.) increases [8].



1 - picture. Personality formation of the student.

On the basis of the ability of the student to look at himself critically, to orientate his opportunities in accordance with the requirements of life, to clarify his goals, to connect the game to one stable node, it is certain that activity will reach a certain meaningful indicator. Among them, self-esteem increases the student's self-confidence, gains spiritual strength, allows him to interact with the people around him, to look critically at himself, to be able to make demands, how to treat failure and success. Also, the student affects the effectiveness of his actions and his development as a person, the situation to be taken into account here is, first of all, his formation according to the evaluation criteria given to that

person by others, which shows that this person is inclined to evaluate himself according to how the people around him evaluate him.

The development of a student's personality as a future specialist with higher education is carried out in a number of directions:

- high confidence, professional orientation is strengthened, necessary abilities are developed;
- mental processes, states, experience are improved and "professionalized";
- the sense of duty, responsibility for the success of professional activity increases, the individuality of the student begins to be defined;
- the demands of the student in the field of future profession will increase;
- on the basis of intensification of social and professional experience and formation of necessary qualities, the general maturity and stability of the student's personality increases;
- the specific weight of his self-education in the formation of the qualities and experience needed by the student as a future specialist increases;
- preparation for future practical work and a sense of professional independence will be strengthened.

Psychological development of a student's personality is a dialectical process of choosing and finding a solution to contradictions, transitioning from the external to the internal, putting oneself in motion, actively working on self-development.

Table 1. Critical thinking (content analysis).

№	author	definition	conclusion
1	D. Cluster	questioning and determination, the desire to provide reliable evidence, the ability to think independently, that is, the presence of individuality in the process of thinking	Critical thinking is necessary for self-development, self-education, self-organization, self-realization
2	D. Halpern	thinking creatively and using cognitive techniques to achieve the intended result	In order to achieve the intended result in solving the problem, it is necessary to distinguish the innovative technologies necessary for the educational process and combine them with creative thinking in accordance with the goals and objectives of the topic.
3	R. Johnson	a special type of mental activity that allows a person to make a correct decision about a model of behavior or the attitude it suggests	Since mental activity is a mirror of a person's behavior, it should be reflected in the actions of those who think clearly and make clear decisions when expressing their own opinion on any issue.
4	M. Lipman	to understand only the final result of scientific discoveries, to rush to achieve it, to arouse interest in the problem	It is necessary to explain to students the need to achieve the final result independently in acquiring new knowledge and to introduce it into that process
5	A. V. Fedorov	complex reflective thinking process	creative thinking as a process leads to reflective thinking to ensure that each decision is correct. Critical thinking is directly related to the process of reflection
6	M.I. Makhmutov	Critical thinking refers to the mental process, which is manifested in the ability to agree or disagree with the opinions of people in a group or collective, depending on the problem, as a basis for choosing the next course of action.	to be able to see the correctness or incorrectness of the theoretical justification of the proposed problem, to understand the shortcomings of one's own opinion, to try to correct it, to be able to distinguish between the truth and falsity of concepts and thoughts related to the given problem. the ability to reveal the meaning and nature of the problem and create a model as a result of its analysis
7	A. A. Tashetov	this is a special type of mental activity of a person, which allows to evaluate the analysis of the opinion and behavior patterns of others, presents new, comprehensive data and provides conditions for independent decision-making	a person's logical, analytical, experiential, independent, evidence-based, reflective, evaluative way of thinking
8	M.Zh. Sultanbek	It can be seen in the ability to analyze the events and phenomena happening around, the information, the ability to make predictions, and the	an active, information-seeker, a specialist who can use the acquired knowledge in his practice when necessary, can independently establish intra- and inter-disciplinary connections between his knowledge, and can prove his opinion in decision-making

Critical thinking (content analysis) [11].

By distinguishing the opinions of scientists, we conclude that critical thinking is the ability to collect only the necessary information from many problems and decisions, as a complex process that

ends with the collection of ideas about a certain problem and decision-making, and the ability to help distinguish new knowledge from the old.

Today, the models created as a result of research work are being improved and supplemented. We determined the components related to our research topic, based on the components presented in the research in creating a model of the formation of professional competence of students through the technology of developing critical thinking on our research topic.

In any pedagogical research, the main principles of modeling that determine the type of model and its adequacy in pedagogical research - visibility, accuracy, fairness are correctly taken into account at the stages of model creation.

The model of scientific-pedagogical activity, i.e. paradigm, has the following methodological characteristics: the problem, the relevance of the topic, the object and subject of research, its goals and objectives, assumptions and rules for protection, scientific novelty and practical importance remain unchanged. However, the model of practical educational activity changes and even has to change according to socio-cultural conditions. Therefore, the relationship between changes in pedagogical practice, on the one hand, and in the science of pedagogy, on the other hand, is not direct.

So, modeling is a method of theoretical research, a special way of work focused on solving traditional problems in a non-traditional way. Widely used in any field. In pedagogy, it is used to solve tasks such as optimizing the structure of educational material, improving the planning of the educational process, managing cognitive activity, managing the educational process, diagnosing, forecasting, and designing education.

Analyzing the types of models created according to research objectives, we came to the conclusion that the structural-content model meets the goal of our research work. The unity of our model ensures structural (goal, content, result) and content (grounds, principles, content, levels) unity of components.

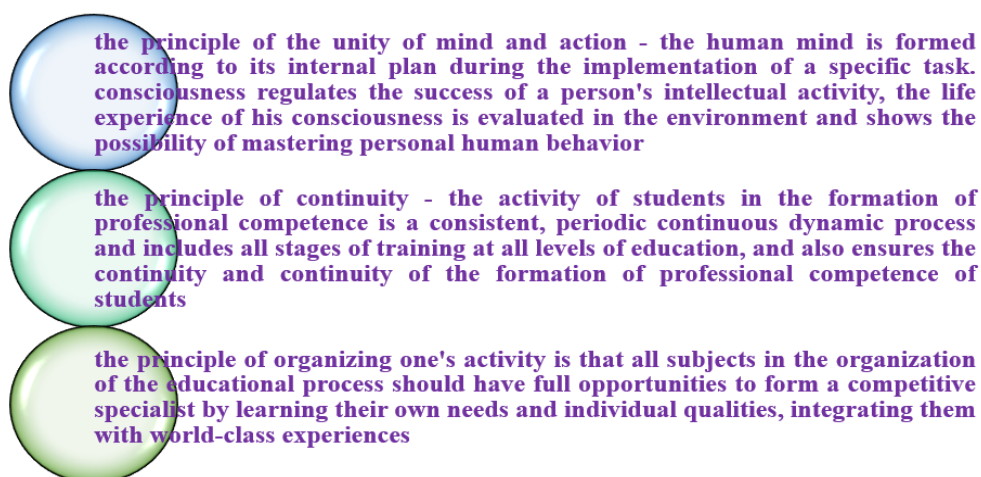
The model of psychological formation of students' professional competence through the development of critical thinking required the guidance of special methodological bases and didactic positions.

Table 2 - Guided pillars in the psychological formation of students' professional competence through the development of critical thinking

Platform	Description	Our own concept
Synergistic platform	Synergistic organization of the process of collective knowledge in the course of education is the formation of a democratic process of joint education through the agreement of its participants to work in cooperation and the ability of each member of the team to take responsibility, not to trample on the rights of others, and to recognize the values of other individuals.	The use of methodological concepts of synergy to consider pedagogical phenomena for the formation of professional competence of students through the technology of development of critical thinking allows not only to deeply reveal their meaning, but also to perform practical pedagogical activities as efficiently as possible.
Personal action platform	The approach to individualization in person-oriented education is the main principle of the entire educational process, the purpose of which is to recognize and develop the capabilities of each child.	Through the technology of development of critical thinking, students' professional competence is formed, their own critical thinking as an individual, interest, life principle, attitude towards profession, value directions, etc. we have the opportunity to improve such personality traits.
Multi-subject platform	The integration of the development processes of individual subjects creates a developmental environment, and in the educational environment, a situation arises that requires the ability of the teacher to create a special subject-subject relationship.	Being guided by a multi-subject platform gives us the opportunity to change the form of organization of teaching and learning, to achieve a common goal in self-acquiring knowledge, to enter into subject relations, to prove one's own "I", i.e., as a result of critical thinking of the intellectual ability that shows one's personality, which is the basis for being able to coordinate one's own point of view with the opinion of the majority. creating an environment of unification of subjects creates an opportunity to get positive results on our research topic.
Consistency is the foundation	requires maintaining the consistency, sequence, and periodicity of the imparted knowledge. Through the technology of development of critical thinking, consistency in the formation of professional competence of students organizes the connection of new knowledge, directs it to a common goal, and contributes to the effective solution of the research problem.	the purpose of education, the subjects of the pedagogical process in the development of intelligence (teacher and lecturer), the content of education (knowledge, knowledge, skills, intelligence, the system of experience of action and the experience of the attitude-action relationship), methods of organizing the pedagogical process at a higher educational institution I thought that types, tools
Acmeological stand	perhaps the "peak" in the progressive development of a person as an individual; achievements in personal development; the pinnacle of a person's achievements in individual development	The future specialist's striving for innovation, acting as an individual, being able to self-regulate psychologically, and increasing his creativity indicate a high level of his intelligence.

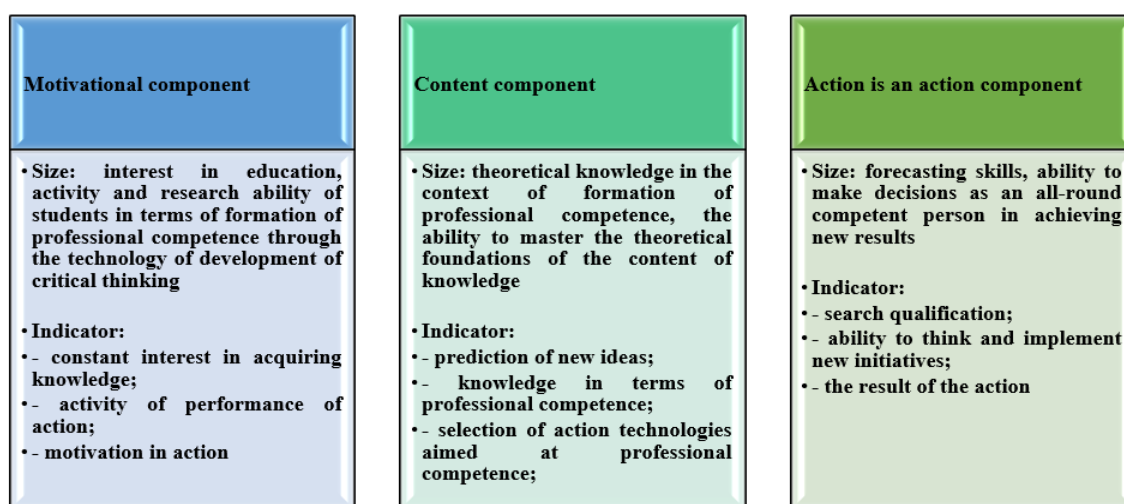
The principles guided by our research work, firstly, determine the real problems and the main strategies for solving them, secondly, determine the value of nodes in the educational system and its hierarchy, and thirdly, achieve the implementation of the full version of the aforementioned prediction.

By developing critical thinking, we were guided by the following principles in forming the professional competence of students from a psychological point of view and ensuring the complexity of our research work.



2 - picture. Principles of formation of professional competence of students.

We got 3 closely related components. They are: motivational, content, action component.



3 - picture. Components of formation of professional competence of students.

In conclusion, a system of tasks specially designed for self-fulfillment in the formation of professional competence of students from a psychological point of view through the development of critical thinking; design method; dialogic, problematic situations in a small group lead to the development of their independence and creativity. We conclude that it is necessary to take into account that critical thinking is a complex process that ends with collecting all ideas about a certain problem, rethinking them and making a decision.

RESULTS

Within the framework of the research topic, we analyzed the works of a number of scientists. Foreign scientists [12]. He believes that the use of technology for development of critical thinking as a means of developing students' competencies is the best solution.

(Obedkova L. et al., 2020) in his scientific work determines that in recent years, a transition to a competency-based teaching model has been observed in higher education, as a result of which the issue

of forming a socially and professionally competent person has become a priority [13]. The main idea of professional competence formation is the integration of higher education with scientific research, that is, the basis of creating an effective system of professional competence development through the technology of developing critical thinking, the issue of realizing abilities and improving the quality of education was raised.

At the beginning of the 21st century, the concept of competency-based approach became widespread. To implement this approach, it is necessary to develop a high level of technology mastery. Competence is required from university teachers, especially teachers who train future teachers. This is very important when communication with students decreases (Mansurova, Doshchinsky, 2016) [23].

The methods and methods used in studying the subjects of the educational program reflect the qualifications of the higher education teacher. This, in turn, becomes the basis for the critical development of students' thinking (Klimova, 2012) [24].

Russian high school teachers (57%) mainly use traditional teaching methods, while 14% of students have never encountered active teaching methods. An analysis was conducted to determine that the majority of teachers are critical of their awareness and readiness to introduce new methods into teaching (Burkhanova and Rodionova, 2012) [25].

The literature mainly contains information about the capabilities of individual components of critical thinking development technology for individual subjects (Varlakova, 2012; Yeltsova, 2013; Eremina, Nagornov and Nagornova, 2013; Lazyryna, 2015), or describes the process and conditions of critical thinking [26, 27, 28, 29].

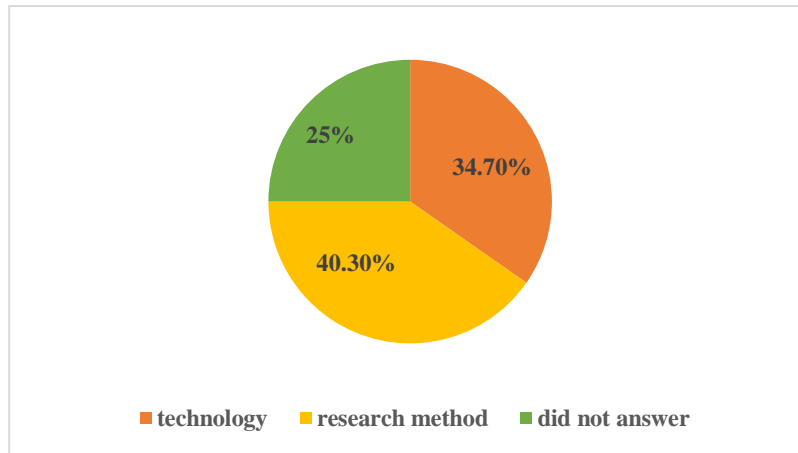
4 - picture. Analysis of the researchers' work

Based on the analyzed scientific works, a survey was conducted with the participation of 3rd-year students in order to determine the possibilities of forming the professional competence of students through the technology of developing critical thinking. 78 students participated in the survey.

The questionnaire "Formation of professional competence of students from a psychological point of view through the development of critical thinking" included the following questions:

1. What do you know about critical thinking?
2. What is the level of organization of work aimed at psychologically forming the professional competence of students through the development of critical thinking?
3. Does critical thinking contribute to the development of students' academic skills?
4. What is the possibility of using critical thinking technology at a higher educational institution?
5. Have you ever organized work on the formation of professional competence on the development of critical thinking at a higher educational institution?
6. What are your thoughts on the psychological formation of professional competence for the development of critical thinking?

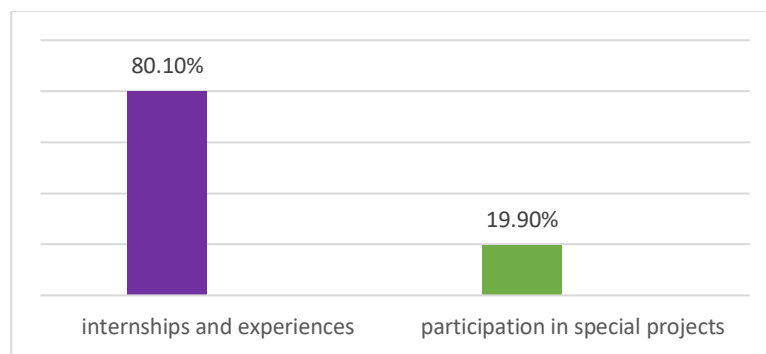
The results of the survey "Formation of professional competence of students from the psychological point of view through the development of critical thinking" showed the following. 34.7% of the participants who answered the first question of the survey answered that it was technology, 40.3% answered that it was a research method, and 25% did not answer the question. Graphically, Figure 4 shows the answers to the first question of the survey.



5 - picture. The answer to the first question of the survey.

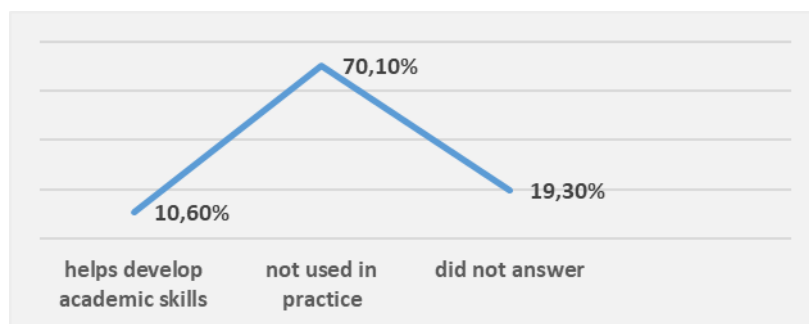
What is the level of organization of work aimed at psychologically forming the professional competence of students through the development of critical thinking? The answer to the second question showed the following result.

80.1% indicated that in some cases they organize internships and experiences, 19.9% organize participation of individual talented students in special projects.



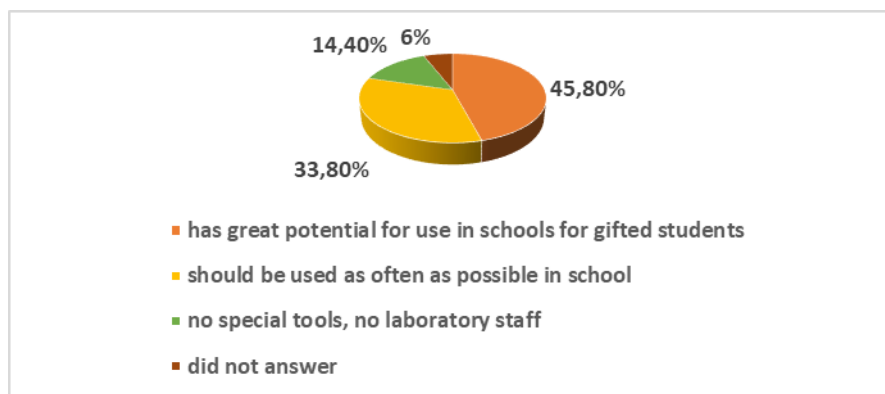
6 - picture. The result of the answer to the second question of the survey.

"Does critical thinking contribute to the development of students' academic skills?" to the third question, 10.6% said that it would help them develop their academic skills, 70.1% said that they had not tried it in practice, and 19.3% did not answer. Figure 6 shows a graphical representation of the responses to the third survey question.



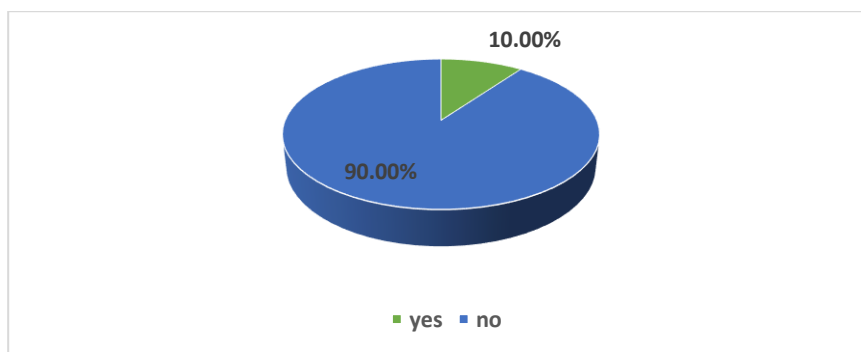
7 - picture. The result of the answer to the third question of the survey.

"What is the possibility of using critical thinking technology in a higher educational institution?" you can see the answers to the question in the following picture: 45.8% believe that critical development technology has a great opportunity to be used in schools for gifted students, 33.8% believe that it should be used as often as possible in schools, 14.4% do not have special tools and laboratory staff. However, 6 percent of respondents did not answer this question. Figure 7 below shows the response data for the fourth survey question.



8 - picture. The result of the answer to the fourth question of the survey.

"Have you ever organized work on the formation of professional competence on the development of critical thinking at a higher educational institution?" to the question. The answers of the respondents were as follows: 10 % - yes; 90% - no.



9 - picture. The result of the answer to the fifth question of the survey.

What are your thoughts on the psychological formation of professional competence in developing critical thinking? He expressed the following opinion on the sixth question.

- if a special subject aimed at mastering the methodology of psychological formation of professional competence for the development of critical thinking is introduced in higher educational institutions;

- If special training seminars and various events are organized on the psychological formation of professional competence for the development of critical thinking;

- If special educational tools and electronic learning materials have been created for the psychological formation of professional competence for the development of critical thinking.

DISCUSSION

The above-mentioned survey showed that students have poor knowledge of critical thinking, have heard about this concept from information sources and are not sufficiently aware of its possibilities in education and training. Although there is little information on the psychological formation of students' professional competence through the development of critical thinking, we found that students systematically plan research activities from elementary school, support continuous integration of education and learning, and are interested in the psychological formation of students' professional competence by participating in specially designed courses.

On the basis of the ability of the student to look at himself critically, to orientate his opportunities in accordance with the requirements of life, to clarify his goals, to connect the game to one stable node, it is certain that activity will reach a certain meaningful indicator.

The development of modern higher education is based on the global trends of integration of the world education system, digitization of the educational space, increasing requirements for the quality of training of specialists in the conditions of high competition in the labor market. Broad educational opportunities, participation in the global educational process, can be beneficial only if students are able to form professional competence during the learning process. In new situations, a new philosophy of education based on the ability of students to form professional competence appears. The need for a qualified specialist prompts the achievement of a high level of critical thinking development technology, which not only acquires knowledge, but also uses it effectively, develops the productivity of educational activities and ensures the formation of professional competence of a person.

Learning and cognitive activity based on critical thinking affects not only the level of harmonious development of mental processes and important personal qualities, but also influence and competence. The formation of professional competence of a person is the source of his interest and enthusiasm, the gradual transformation of external physical action into internal thought action, to achieve effective action in the creative direction, that is, the formation of competence.

We conclude that in the future, students should master the methodology of organizing and analyzing the pedagogical process in terms of professional competence, based on critical thinking in professional activities.

We believe that students who have developed professional competence should have qualities such as critical thinking. Because in the process of reflection, they should be able to keep in mind the general goal of professional activity and coordinate the tasks and intermediate results of each stage of the lesson with the final conclusions.

Through the development of critical thinking, it is possible to form the competence of actively working with the teacher, thinking during the teaching process, expanding their feelings and knowledge about the environment by expressing approval or opposition.

CONCLUSION

Forming the professional competence of students from a psychological point of view through the development of CT is currently a multi-disciplinary, multi-planned process. In the implementation of the concept for 2023-2029, the main goal is to increase competitiveness in accordance with international educational standards. Based on this, we came to the conclusion that the CT and professional competence of the student are the most important factors in the development of education and professional activity.

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