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ВЕСТНИК

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NAS RK is pleased to announce that Bulletin of NAS RK scientific journal has been accepted for indexing in the Emerging Sources Citation Index, a new edition of Web of Science. Content in this index is under consideration by Clarivate Analytics to be accepted in the Science Citation Index Expanded, the Social Sciences Citation Index, and the Arts & Humanities Citation Index. The quality and depth of content Web of Science offers to researchers, authors, publishers, and institutions sets it apart from other research databases. The inclusion of Bulletin of NAS RK in the Emerging Sources Citation Index demonstrates our dedication to providing the most relevant and influential multidiscipline content to our community.

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НАН РК сообщает, что научный журнал «Вестник НАН РК» был принят для индексирования в Emerging Sources Citation Index, обновленной версии Web of Science. Содержание в этом индексировании находится в стадии рассмотрения компанией Clarivate Analytics для дальнейшего принятия журнала в the Science Citation Index Expanded, the Social Sciences Citation Index и the Arts & Humanities Citation Index. Web of Science предлагает качество и глубину контента для исследователей, авторов, издателей и учреждений. Включение Вестника НАН РК в Emerging Sources Citation Index демонстрирует нашу приверженность к наиболее актуальному и влиятельному мультидисциплинарному контенту для нашего сообщества.

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THE EFFECTIVENESS OF THE USE OF CRITICAL THINKING TECHNOLOGY

Abstract. The article is devoted to the effectiveness of the use of critical thinking technology in the formation of the competence of future professionals.

Future professionals must be able to analyze the ever-changing socio-economic processes, make and implement decisions appropriate to *the conditions of market competition*.

The process of reforming the education system of the Republic of Kazakhstan is living in a new information technology era, associated with improving its content and quality, improving the *National Model* of education, the introduction of pedagogical technologies. Therefore, the training of specialists who have mastered new technologies is one of the *most pressing problems* today.

In managing the educational process, the implementation of the professional and pedagogical culture of teachers and specialists requires that they be directed to special pedagogical, spiritual, highly humane, valuable goals. Each member of the teaching staff is a special organizer and implementer in a particular area of the educational process. Being a key figure in the educational process, if a specialist does not show his experience, knowledge, skills in fulfilling spiritual and cognitive needs, does not focus all his efforts on high goals, does not activate the organization of classes with intelligence, professionalism, everything will remain the same.

Therefore, the introduction of critical thinking technology into the vocational training of future specialists through psychological reflective analysis and the identification of theoretical foundations justified in pedagogical practice makes the process of organizing education in a higher educational institution more effective. *As a result, a future specialist who has mastered the technology of critical thinking:*

- be able to demonstrate the ability to professionally use critical thinking technology in his work;
- be able to discuss the characteristic features of pedagogy and the shortcomings of teaching aids;
- must form teaching methods based on critical thinking.

Key words: Critical Thinking Technology, Higher educational institution, Integration. Spiritual, Cognitive.

Modern higher education provides several systems of meeting the needs of society.

That is, the creation of scientific training and production complexes as a form of integration of science, education and production;

- humanization of education; setting high standards for teacher training, raising the foundations of new pedagogical technologies in the training of future specialists in higher education and raising their professional level.

This process is reflected in different countries of the world at different levels, depending on their national characteristics, economic situation, traditions of the education system.

The effectiveness of the use of educational technology in higher education depends on the ability of the future specialist to properly organize the professional activity. Extensive research work has been done in various fields, which covers various aspects of pedagogical activity.

Reforms in the education system and the current school's focus on personality-oriented learning place new demands on the training of future professionals. The current stage of development of the education system is associated with the search for ways to move to a new paradigm, that is, the achievement of a new goal of education.

In managing the educational process, the implementation of the professional and pedagogical culture of teachers and specialists requires that they be directed to special pedagogical, spiritual, highly humane, valuable goals. Each member of the teaching staff is a special organizer and implementer in a particular area of the educational process. Being a key figure in the educational process, if a specialist does not show his experience, knowledge, skills in fulfilling spiritual and cognitive needs, does not focus all his efforts on high goals, does not activate the organization of classes with intelligence, professionalism, everything will remain the same.

Therefore, the introduction of critical thinking technology into the vocational training of future specialists through psychological reflective analysis and the identification of theoretical foundations justified in pedagogical practice makes the process of organizing education in a higher educational institution more effective.

Current training processes require updated qualitative changes in the training of highly qualified specialists. In order to improve the quality of higher education, it is important for students to improve their knowledge in different areas and using new methods.

The education system should be focused on the formation of a new generation of qualified professionals who are responsible for their work in accordance with the goals of society, who have a worldview culture for creative thinking, and who have a lot of goodness.

The formation of technology of professional critical thinking in the process of vocational training is not only a goal, but also a prerequisite for the effectiveness of the process. Mastering the educational program depends on what the student is like as a person.

One of the new directions of the education system in the training of future professionals is the cultural formation of professional activity of future professionals in accordance with the peculiarities of the technology of professional critical thinking.

By linking the processes of teaching and education in higher education, it is important to form in students a scientific worldview, moral, political qualities, diligence and related professional business skills, as well as professional critical thinking.

Also, the formation of the technology of professional critical thinking requires communication in society and modernity. This is the main pedagogical task of every teacher, pedagogue.

The importance of vocational training of future specialists is characterized by the requirements for the personality and activity of the specialist. This increases the need for a general and professional culture in the pedagogical process of the university, a culture of self-control in creative communication.

At present, to work under the conditions of market relations requires the training of highly specialized professionals. The rapid development of modern social changes requires the training of highly qualified specialists in accordance with modern requirements.

Future professionals must be able to analyze the ever-changing socio-economic processes, make and implement decisions appropriate to the conditions of market competition.

The process of reforming the education system of the Republic of Kazakhstan is living in a new information technology era, associated with improving its content and quality, improving the National Model of education, the introduction of pedagogical technologies. Therefore, the training of specialists who have mastered new technologies is one of the most pressing problems today.

On the way to the transition to market relations in the current situation, issues such as professional training, the formation of professionalism of teachers, their impact, quality, place in society, their role in the education system are rising.

To carry out this training, future professionals *must have professional critical thinking* on the program to meet the requirements.

The use of critical thinking technology is a mandatory component in improving the vocational training of future professionals in the educational process.

Therefore, in order to train professionals in any level of education, it is important to form critical thinking in their future careers.

Training with the use of professional critical thinking, the creation, development and implementation of the necessary conditions for their improvement, the search for ways to connect new areas by the traditional method requires solving a number of psychological, pedagogical, educational and methodological issues. The following *directions* can be distinguished:

- the creation of a single scientific and methodological complex to solve the problem of introducing the use of critical thinking technology into the educational process;
- development of the methodologies for the formation of critical thinking technology in practice;
- improving the training of future professionals on the basis of critical thinking technology and the introduction of new methodologies in the educational process;
- development of sources of information resources, logistics in higher education institutions to improve vocational training;
- necessary methodological support, search, development and creation.
- as a prerequisite for the development of knowledge and psychological and pedagogical skills of future specialists needed to use new technologies - teaching students the technology of critical thinking;
- scientifically and theoretically substantiate the content, structure and level of training of future specialists for the use of critical thinking technology in the educational process.

In this regard, summing up the results of world pedagogical research, which examines ways to improve the skills of future specialists, the scientist Sh. Taubaeva says: "Professional interest arises from the need to be able to navigate pedagogical activities, and such high professionalism is realized only through the desire of the teacher himself". [1].

In his works, K.K. Shalgynbaeva shows uniform methodological requirements for teachers.

- raising the level of pedagogical and psychological education;
- to study and master the latest pedagogical technologies in teaching and education, methodological approaches and the ability to use it in their professional work;
- the achievement of the formation of positive pedagogical professional attitudes and values and their sustainable development;
- motivation to improve their knowledge, engage in creative work;
- creation of necessary conditions, provision of information conditions of teachers;
- be able to master and apply modern methods of monitoring and diagnosing student achievement;
- aspiration, interest, motivation and comprehensive support of author's programs, courses, tools, article search;
- the introduction of the scientific organization of labor in the work of pedagogues in the daily work of every teacher [2].

Technological progress and the increase in the amount of scientific information, the reorganization of the content of school education and the principles of action in the educational process leads to an inevitable increase in the requirements for professional qualifications and personality of the teacher, personal orientation of the whole pedagogical process.

Today, practice itself proves the effectiveness of the use of new pedagogical methods to improve the educational process in any educational institution. This in itself creates the need for a theoretical justification for this problem.

S.G. Gubasheva and A.Zh. Otarbay say that "the formation of the individual is a continuous and complex process" [3]. The conclusions of L.S. Vygotsky, who deeply studied the nature of the human soul, the so-called cultural-historical "immediate zone of child development" of human psychology, deserve special mention.

His theory, which occupies a special place in the science of psychology, is the level of the child's natural development, his upbringing, his education and the formation of his worldview. Such a requirement develops and improves the child's psyche, the development of his soul, the level of intelligence [4]. Given that the improvement of teaching methods is a key issue today, pedagogical research emphasizes the need to master new types and methods of teaching that increase the effectiveness of teaching.

However, today the introduction of new methodology in the educational process, including the formation of professional pedagogical skills - is one of the most difficult processes. S.Babaev: "... emphasizes the psychological qualities of teachers, which play a very important role in pedagogical activity: education (erudition), determination, pedagogical thinking, intuition and improvisation. At the same time, it is possible to note additional professional business qualities of the teacher in teaching students. They are: pedagogical observation, optimism, ingenuity, foresight". "One-sided exaggeration should be avoided in the use of some new teaching methods" [5].

Even when teaching each subject, it is necessary to improve the teaching methodology, requiring unique approaches and methods.

In accordance with the general goals and objectives of pedagogical mastery, the content and volume of educational materials, the level of preparedness of students, the structure of the lesson and the constant replenishment of teaching methods should be a process for the teacher or educator.

It is necessary to pay individual attention to each student, using the teaching methodology in accordance with its goals and objectives, the characteristics of tastes in cognitive activity. This is the goal of professional pedagogical skills. The formation of a teacher's practice in a creative way, his masterful lectures in combination with pedagogical skills - a requirement of critical thinking technology.

Critical thinking technology, of course, is the basis for effective teaching in the educational process.

However, in education, when forming the technology of professional critical thinking, it is necessary first of all to determine its purpose. This is because in the presentation of the teaching materials, it is not possible to determine the purpose of the additional material that must be kept in mind, that is, its purpose, which focuses on its main idea.

Methodology is a key component of didactics in teaching. This is because the educational process is the unity of its purpose and content, methodology and types of organization. Our scientists gave their own different definitions to teaching methods. A brief pedagogical-psychological dictionary defines a "method" - as a way to achieve a goal, an approach, an action disciplined in a certain way.

The method is derived from the Greek word "metodos". The concept of method means the way to achieve a certain truth, reality, purpose.

Teaching methods are a way for teachers and students to work together to educate and develop students. In particular, knowledge, business skills, technology of professional critical thinking of students will be formed and their abilities will increase.

Teaching methods are the result of the joint work of a teacher and pupil, student and teacher.

Through teaching methods, students focus on the ways of learning as a result of their interaction. Improving the creative cognitive activity of teachers and students in education based on the technology of professional critical thinking.

Improving students' knowledge in teaching methods based on the technology of critical thinking is a set of methods and tools used in the study of its content by the student in accordance with the objectives of teaching.

In the organization of their practical activities in the education of students with the help of critical thinking technology is associated with the management of the cognitive activity of students. [6].

In psychology, the concept of action has two meanings. Firstly, it is used as a position of worldview, and secondly, as the basis for various social sciences. In everyday life, the word "action" means a simple concept of work, action. And in science, this is considered in connection with the nature of man, which is engaged in several branches of science. It refers to a psychological phenomenon (in this case, a relationship) that is close to each other on the basis of creative activity, the content of the service, the process of service, purpose, conditions of implementation, as well as the requirements for the personality of the creator.

In order to improve new pedagogical practices in vocational education, using advanced psychological and pedagogical ideas, rational methods, the formation of pedagogical skills, and also in vocational training, the formation of the critical thinking technology of a future specialist plays an important role. [7].

In our opinion, *the main skills* necessary for the formation of the characteristic features of future specialists while improving their professional knowledge are:

- must be creative in education, have their own peculiarities, improvising in any situation, and should gradually get used to it.

- the technology of critical thinking for the training of future professionals should be, in principle, a feature of professional knowledge and skills.

- the proposed critical thinking technology is a common problem in the vocational training of specialists in the methodological complex, ensuring continuous improvement of knowledge and skills.

As a result, the future specialist who has mastered the technology of critical thinking:

- can demonstrate the ability to professionally use critical thinking technology in his work;

- can discuss the characteristic features of pedagogy and the shortcomings of teaching aids;

- develops teaching methods based on critical thinking.

А. М. Жұмаш¹, Г. М. Акбаева²

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СЫНИ ОЙЛАУ ТЕХНОЛОГИЯСЫН ПАЙДАЛАНУДЫҢ ТИІМДІЛІГІ

Аннотация. Мақала болашақ мамандардың құзыреттілігін қалыптастыруда сыни ойлау технологиясын пайдаланудың тиімді мәселелеріне арналған.

Болашақ мамандар үнемі өзгеріп отыратын әлеуметтік-экономикалық үдерістерді талдай білуге, нарықтық бәсеке жағдайына лайықты шешімдер қабылдап, жүзеге асыра алуы тиіс.

Қазақстан Республикасы білім беру жүйесіндегі реформалау үдерісі оның мазмұны мен сапасын арттыру, білім берудің ұлттық моделін жетілдіру, педагогикалық технологияларды ендіруге байланысты жаңаша ақпараттық технологиялық дәуірде өмір сүруде. Сондықтан да жаңа технологияларды меңгерген мамандарды кәсіби даярлау бүгінгі күннің өзектілігі жоғары мәселесінің бірі болып отыр.

Білім беру үдерісін басқаруда оқытушы-мамандардың кәсіби және педагогикалық мәдениеттілікпен жүзеге асыруы, оларды арнайы педагогикалық, рухани, жоғары гуманды, құнды мақсатқа бағытталуын қажет етеді. Педагогикалық ұжымның әрбір мүшесі білім беру үдерісінің белгілі аймағында арнайы ұйымдастырушы және жүзеге асырушы болып саналады. Оқыту үдерісінің басты тұлғасы бола отырып, маман рухани танымдық қажеттіліктерді жүзеге асыруда тәжірибесін, білімін, қабілетін көрсетпесе, өзінің бар жігерін жоғары мақсатқа жұмылдырмаса, сабақты ұйымдастыруда интеллектісімен, кәсіби әрекеттерімен жандандырмаса барлығы жай ғана сөз күйінде қала бермек.

Сондықтан, болашақ мамандарды кәсіби даярлауда сыни ойлау технологиясын енгізу психологиялық тұрғыда рефлексиялық талдаудан өткізіліп, педагогикалық іс-тәжірибеде дәйектелген теориялық тұғырының анықталуы жоғары оқу орнында маман даярлауды ұйымдастыру үдерісін тиімді етеді. Сыни ойлау технологиясын жетік меңгерген болашақ маман нәтижесінде:

- жұмысында сыни ойлау технологиясын кәсіби пайдалану мүмкіндігін көрсете алу;
- педагогикалық өзіндік ерекшеліктері мен оқу әдістемелік құралдарының кемшіліктерін талқылай білу;
- сыни тұрғыдан ойлау негізінде дәріс берудің әдіс-тәсілдерін қалыптастыруы тиіс.

Түйін сөздер: критикалық ойлау технологиясы, жоғары оқу орны, интеграция, рухани, танымдық.

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ЭФФЕКТИВНОСТЬ ИСПОЛЬЗОВАНИЯ ТЕХНОЛОГИИ КРИТИЧЕСКОГО МЫШЛЕНИЯ

Аннотация. Статья посвящена вопросам эффективности использования технологий критического мышления в формировании компетенций будущих специалистов.

Будущие специалисты должны уметь анализировать постоянно меняющиеся социально-экономические процессы, принимать и реализовывать решения, соответствующие условиям рыночной конкуренции.

Процесс реформирования системы образования Республики Казахстан переживает новую эру информационных технологий, связанную с улучшением ее содержания и качества, совершенствованием национальной модели образования, внедрением педагогических технологий. Поэтому профессиональная подготовка специалистов по новым технологиям является сегодня одной из самых актуальных проблем.

Управление образовательным процессом требует профессиональной и педагогической культуры педагогов и специалистов, их особых педагогических, духовных, очень гуманных, важных целей. Каждый член преподавательского состава является специальным организатором и исполнителем в определенной области образовательного процесса. Будучи ключевой фигурой в учебном процессе, если специалист не проявит свой опыт, знания, умения в реализации духовных и познавательных потребностей, не сосредоточит все свои усилия на высоких целях, не активизирует организацию занятий с интеллектом и профессионализмом, все останется прежним.

Поэтому внедрение технологии критического мышления в профессиональную подготовку будущих специалистов путем психологического рефлексивного анализа и выявления теоретических основ, обоснованных в педагогической практике, делает процесс организации обучения в высшем учебном заведении более эффективным. В результате будущий специалист с глубоким знанием технологии критического мышления должен:

- уметь демонстрировать умение профессионально использовать технологию критического мышления в своей работе;
- уметь обсуждать специфику педагогики и недостатки учебно-методических пособий;
- сформировать методы обучения на основе критического мышления.

Ключевые слова: технология критического мышления, университет, интеграция, духовная, когнитивная.

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