PEDAGOGICAL TASKS OF PREPARING MATHEMATICS TEACHERS FOR CREATIVE ACTIVITY IN THE CONTEXT OF INTERDISCIPLINARY TEACHING

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Annotatsiya: Ta'lim jarayonini integratsiyalash, uning metodik asoslarini o'rganish, shakl va metodlarini ishlab chiqish, davlat ta'lim satandarti va uzluksiz ta'lim tizimi. Fanlararo aloqadorlik o`rnatish uchun o`quv materiali mazmuni va mantiqan, psixologik didaktik, metodik va boshqa jihatlardan tahlili. kasbiy bilim va ko`nikmalarni shakllantirishning ikki tarkibiy qism: talabalarda kasbiy-metodik bilim va ko`nikmalarni shakllantirish texnologiyasi va rivojlantiruvchi kasbiy diagnostikadan iborat pedagogik tizimi ishlab chiqilgan.

Kalit so'zlar: talabalarda kasbiy-metodik bilim va ko`nikmalarni shakllantirish texnologiyasi va rivojlantiruvchi kasbiy diagnostikadan iborat pedagogik tizim. Metodik asoslarini o'rganish, shakl va metodlarkasbiy bilim va ko`nikmalarni shakllantirish.

Аннотация: Интеграция образовательного процесса, изучение его методологических основ, разработка форм и методов, государственных образовательных стандартов и системы непрерывного образования. Анализ содержания и логических, психолого-дидактических, методических и других аспектов учебного материала для установления междисциплинарности. Разработана педагогическая система, состоящая из двух компонентов формирования профессиональных знаний и умений: технологии формирования профессионально-методических знаний и умений у студентов и развивающей профессиональной диагностики.

Ключевые слова: педагогическая система, состоящая из технологии формирования профессионально-методических знаний и умений студентов и развивающей профессиональной диагностики. Изучение методологических основ, форм и методов, формирование профессиональных знаний и умений.

Annotation: Integrating the educational process, studying its methodological bases, developing forms and methods, state educational standards and continuous education system. Analysis of content and logical, psychological didactic, methodical and other aspects of educational material to establish interdisciplinarity. A pedagogical system consisting of two components of professional knowledge and

skills formation: the technology of forming professional-methodical knowledge and skills in students and developing professional diagnostics has been developed.

Keywords: pedagogic system, educational technology, formation of professional-methodical knowledge and technical students, and developmental professional diagnosis. Izuchenie methodological principles, forms and methods, formation of professional knowledge and skills.

Integration of the educational process, study of its methodological bases, development of forms and methods, is an urgent issue related to the state education standard and continuous education system. The integration of the educational system implemented in today's new socio-economic conditions should meet the requirements of changes in the market economy, provide sufficient material, technical and information base of the educational process, attract highly qualified pedagogical personnel to the educational process, and provide quality education. preparation of educational and methodological developments, establishment of mutual integration between the educational system and production is one of the important issues. In order to develop the stages of implementation of inter-sectoral integration in ensuring the quality of personnel training and their employment, based on the first social and professional needs and requirements, the ultimate goals of integration, the tasks set for their implementation, the method of solving tasks and tools are thoroughly and thoroughly analyzed.

Creation of foundations of inter-industry integration aimed at ensuring the quality of personnel training and their employment during the implementation of inter-industry integration stages; development of the integration strategy of higher education institutions that train personnel for industries and its implementation through optimal mechanisms, methods and tools; introduction of criteria for monitoring the influence of structural changes in the labor and educational services market, demand and supply dynamics on integration; revision and improvement of organizational and legal aspects of marketing activities in higher education, implementation of effective use of opportunities of integration approach in the management of higher education institutions.

One of the most urgent issues of today is to be able to identify the hidden connections and links in the formation of the scientific worldview, to ensure interdiscipline connection, that is, coherence. Because a teacher who is able to organize a lesson with interdisciplinary communication, not only increases students' interest in their subject, but also helps them master this subject. As a result of the systematic implementation of interdisciplinary communication, the relevance of the educational process increases significantly. In addition, it is an important condition for the development of knowledge and interest in academic subjects. By analyzing

the educational material by topic, if it is superficially determined which topics are related to each other, by means of a structural analysis, the concepts, arguments, laws, judgments, conclusions, imaginations that make up the educational material are determined. relationship is established. How to record interdisciplinary communication depends on the capabilities of the user.

Interdisciplinarity should be interpreted in a broader way, not only as the interaction of individual academic subjects, but also as the interaction of teachers and students, that is, as a system of all elements of the educational process. In order to determine the importance and place of interdisciplinary communication in the educational process, it is necessary to classify their communication, because the systematic approach allows to determine not only the versatility of this communication, but also the methods of their manifestation and in what cases they are used.

Educational activities aimed at ensuring interdisciplinary communication become somewhat complicated for students. In this regard, importance is attached to preliminary homework in other academic subjects, minutes of repetition based on textbook materials in the lesson, and the use of schematic visualization. Achieving the mastery of educational materials on the basis of ensuring inter-disciplinary communication allows to ensure appropriate inter-disciplinary communication. There are also general requirements for doing homework on the basis of ensuring the connection between academic subjects. Such independent, individual training should have directions such as scientificity and comprehensibility, ensure the vitality of the educational content, its connection with practice, and accelerate the students' cognitive activities. Relying on interdisciplinarity, they should widely use various forms of teaching, such as advanced pedagogical technologies, problem solving, independent work with books, demonstration.

Interdisciplinarity is a broad concept by its essence, which means that various aspects and properties of the studied materials will be revealed in every way. Reciprocity - in essence, represents the relationship between two educational subjects, that is, the application and application of knowledge and work-action methods acquired in the first academic subject in the second. Integrative communication is a relatively high-level communication, which differs from the previously mentioned ones in that it is purposefully included in the curriculum, and it certainly requires its provision. As a result, systematic and perfect knowledge of the subject will enable the formation of working methods.

In order to establish interdisciplinarity, the educational material is analyzed from the content and logical, psychological, didactic, methodical and other aspects. Great importance is attached to the use of integrated education in the educational process. The structure of integrated lessons requires the accuracy and consistency of the

materials being studied at all stages of learning, thorough study and logical connections. In order to provide integrated education to students, it is necessary to select the most important ideas of subjects and systematize them in accordance with students. Integrative materials should be written in plain, simple language and explained in an understandable way. In order to establish interdisciplinarity, the educational material is analyzed from the content, logic, psychological, didactic, methodical and other aspects. By analyzing the educational material by topics, it is determined superficially which topics are related to each other, and by means of structural analysis, the constituent concepts, arguments, laws, judgments, and imaginations of the educational material the relationship between them is established. Organization of training of students on the basis of electronic educational-methodical complex allows combining subject-related and methodical training. At the moment, the issues of designing and using electronic teaching-methodical complexes have not been sufficiently worked out in the practice of higher pedagogical education. Electronic educational-methodical complex means a complete set of educational-methodical materials (educational program, hypertext illustrated textbook, series of virtual laboratory works, information-database, test program, instructional-methodical materials) included; it is understood as a complex tool of education that performs the functions of motivation, information, diagnosis, correction and supports the educational process in all its stages.

Two components of goal-oriented formation of professional knowledge and skills by means of information and communication technologies among students studying in the field of vocational education of higher educational institutions: technology of formation of professional and methodical knowledge and skills in students and developing professional a pedagogical system consisting of diagnostics has been developed. During the research, a new approach to the problem of training mathematics teachers was developed: - to ensure the integrity of professional training in the use of information and communication technologies and to rely on the model of professional pedagogical activity of the future mathematics teacher; orientation to the formation of normative-practical and creative skills of the future mathematics teacher in the conditions of informatization of education; implementation of subject relations of teachers and students; paying attention to the uniqueness and creative potential of students; orientation to innovation processes; integration and interrelationship of psychological-pedagogical and methodical knowledge. The main task of the higher education institution that prepares teachers of mathematics is to create such an educational environment, which is aimed at training a teacher who has modern, high pedagogical skills and is able to carry out innovative activities for the benefit of society. should be.

From this point of view, it is appropriate to start preparing the future mathematics teacher for innovative activities from the first stage of the bachelor's degree. In particular, if students' desire for innovation, development of independent work ability starts from the first years of study, then at the 3rd stage teaching of pedagogical-psychological subjects by guiding the future mathematics teacher to carry out innovative activities, 4 By the - stage, it will be necessary for them to independently search for news, select relevant information and form their skills. In the process of implementation of all these stages, the use of personal educational technologies is of great importance. The theoretical analysis of scientific sources has shown that individual-oriented education allows students to develop skills such as independent learning, communication, cognition, creativity, self-development and manifestation (existentiality).

The analysis of the historical-pedagogical, psychological-pedagogical and scientific-methodical literature devoted to the problem of vocational orientation through the education of mathematics in technical higher educational institutions shows that perfecting the preparation of mathematics for the implementation of vocational education is one of the promising directions. For this specialty, the definition of professional orientation of mathematics education was clarified, the didactic principles necessary for the implementation of professional orientation were described. Students may not be able to connect the knowledge obtained from mathematics with general and specialized knowledge, and they may not be able to use it effectively in the work related to design and construction, while completing course work and graduation qualification work. it is required to develop methodical recommendations for studying the material and conducting practical training.

In the process of teaching students of the technical higher education institution in mathematics, the development of the concept of a methodical system for the formation of engineering activities in them, its main cases are as follows: the composition of the methodical system; principles of its structure; integrated description of the system; requirements for forms and methods of working within the system; It is necessary to reveal the structure of the system suitable for engineering activities. As a result of the analysis of scientific-methodical works on various approaches to improving education, integration in the teaching of subjects and the problems of its application, there is a need for scientific research on the implementation of an integrative approach in improving the professional training of future mathematics teachers. Integration is a process that means the interconnectedness of separate sections of a system, a whole science, which differ from each other. The rapid development of society and its impact on the education sector require changes in the content of education, teaching methods and technologies. It is important to regularly update the educational content based on an

integrative approach. Today, when the volume of national information is increasing due to the rapid development of science and technology, the introduction and popularization of information and communication technologies in the educational process is an urgent issue.

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