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DEVELOPMENT OF PSYCHOLOGICAL-PEDAGOGICAL PREPARATION OF FUTURE TEACHERS FOR WORKING IN THE DIGITAL EDUCATION SYSTEM

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Abstract

The article analyzes the development of the psycho-pedagogical readiness of future teachers to work in a digital educational environment. The digital environment requires teachers to expand their professional and psychological competencies, effectively use innovative technologies, and consider the individual needs of students. The article discusses the motivational, cognitive, practical, and reflexive components of psycho-pedagogical readiness and explores the possibilities of effectively organizing teachers' professional activities through online platforms and web conferencing.

Keywords: Digital education, psycho-pedagogical readiness, future teacher, online learning, innovative technologies.

Introduction


RAQAMLI TA'LIM TIZIMIDA FAOLIYAT OLIB BORISH UCHUN BO'LAJAK PEDAGOGLARNING PSIXOLOGO-PEDAGOGIK TAYYORGARLIGINI RIVOJLANTIRISH

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Annotatsiya:

Maqolada raqamli ta'lim tizimida faoliyat olib borish uchun bo'lajak pedagoglarning psixologo-pedagogik tayyorgarligini rivojlantirish masalasi tahlil qilinadi. Raqamli muhit pedagogning kasbiy va psixologik qobiliyatlarini kengaytirish, innovatsion texnologiyalardan samarali foydalanish va ta'lim jarayonida talabalarning individual ehtiyojlarini hisobga olishni talab qiladi. Maqolada psixologo-pedagogik tayyorgarlikning motivatsion, kognitiv, amaliy va refleksiv komponentlari muhokama qilinadi, shuningdek, onlayn platformalar va veb-konferensiyalar orqali pedagoglarning kasbiy faoliyatini samarali tashkil etish imkoniyatlari ko'rib chiqiladi.

Kalit so'zlar: raqamli ta'lim, psixologo-pedagogik tayyorgarlik, bo'lajak pedagog, onlayn ta'lim, innovatsion texnologiyalar.


Аннотация:

В статье рассматривается развитие психолого-педагогической готовности будущих педагогов к работе в условиях цифровой образовательной среды. Цифровая среда требует от педагога расширения профессиональных и психологических компетенций, эффективного использования инновационных технологий и учета индивидуальных потребностей обучающихся. В статье обсуждаются мотивационный, когнитивный, практический и рефлексивный компоненты психолого-педагогической готовности, а также рассматриваются возможности эффективной организации профессиональной деятельности педагогов с использованием онлайн-платформ и веб-конференций.

Ключевые слова: цифровое образование, психолого-педагогическая готовность, будущий педагог, онлайн-обучение, инновационные технологии.

Introduction

The rapid development of information and communication technologies in modern society is causing fundamental changes in the education system. In particular, the process of digitization of education requires a review of the

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content, forms and methods of pedagogical activity. In such conditions, preparing future teachers for effective work in a digital educational environment is becoming one of the urgent tasks. Because a modern teacher must not only have thorough knowledge of his subject, but also have the ability to purposefully and effectively use digital technologies, organize the educational process on an innovative basis, and establish interactive communication with students.

The digital education system requires new professional competencies from the teacher, in particular, digital literacy, information analysis, work with online educational platforms, as well as skills in individualizing the educational process. At the same time, the psychological preparation of the teacher is also of great importance, that is, he must be able to adapt to a rapidly changing environment, accept new technologies, manage stress situations and organize education taking into account the psychological characteristics of students.

The relevance of this problem is that the process of digitization of education is not limited to the introduction of technical means, but also requires the renewal of pedagogical approaches and educational content. In this regard, the issue of developing the psychological and pedagogical preparation of future teachers is one of the important areas of scientific research.

The purpose of this study is to develop theoretical and practical foundations for the formation and development of the psychological and pedagogical preparation of future teachers for working in the digital education system. The research process involves the use of systematic, competency-based and person-oriented approaches. This will serve to increase the professional potential of future teachers and prepare them for effective work in a digital educational environment.

Literature analysis and methodology

As A.S. Voskovskaya and T.A. Karpova noted, the digitalization of education today provides flexibility to the education system, turning it into an open and individualized system for all learners. This process ensures that each student has the opportunity to receive education in accordance with their personal needs, abilities and learning pace.[3] At the same time, the digital learning environment

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enhances the processes of perception, assimilation and deep understanding of knowledge. Through virtual reality tools, multimedia video materials and electronic learning platforms, students have the opportunity to interact interactively with educational materials. Such opportunities are implemented through mobile devices, increasing the continuity and efficiency of the educational process.

Analyzing the process of digitization, D.A. Barkhatova, P.S. Lomasko, and N.I. Pak substantiate the need to modernize the educational environment. According to them, in a digital environment, the educational process acquires new organizational and substantive aspects.[1] According to E.S. Volovik and M.L. Malchevskaya, the characteristics of the teacher's work have changed significantly, and he is no longer just a provider of knowledge, but also a consultant, facilitator, and manager of the educational process.[2] A.Kh. Guseva emphasizes that in new conditions, the content of education must be adapted to digital formats and constantly updated.[4]

The research of O.N. Kajarskaya and S.A. Medvedeva is based on the transformation of educational forms and methods, in particular, the expansion of interactive and online educational technologies.[6] T.S. Kotlyarova, I.A. Kostyuk and N.V. Aleksandrova note that the increase in the flow of information and the change in forms of communication bring the interaction between the teacher and the student to a new level.[7]

As a result of the above changes, the issue of teachers' readiness to work in a digital educational environment is gaining particular importance. As S.S. Kulikova and O.V. Yakovleva noted, today this problem is becoming one of the most urgent issues in the field of pedagogy and psychology.[8] O.V. Litovchenko explains the teacher's readiness for work as a specific psychological state of the individual.[9] M.I. Lukyanova emphasizes that the interrelation of components, understanding of the expected result, creative potential and the ability to implement it play an important role in its structure.[10]

According to V.V. Miroschnichenko, teacher preparation includes factors such as personal characteristics, attitude to the profession, professional competence,

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self-assessment and the desire for professional development.[11] In the studies of A.V. Savchenkov, teacher preparation is considered as a combination of theoretical, practical and motivational components.[12] In the works of O.V. Zaslavskaya, V.N. Rannikh and M.S. Vorotilin, teacher preparation is interpreted as a holistic system that includes ideological-theoretical, psychological-pedagogical, methodological and technological components.[5] G.P. Savinikh emphasizes that this preparation is closely related to the transformation of motivational and operational-executive structures of pedagogical activity.[12]

On this basis, it can be noted that the development of psychological and pedagogical training of future teachers for working in the digital education system is a multifaceted and complex process. It is not limited to the formation of knowledge, skills and qualifications, but also requires the development of value-oriented motives of the individual, psychological stability, communicative competence and the ability to think innovatively.

The methodological basis of the study is a systematic, person-oriented and interactive approach to pedagogical activity. Also, philosophical theories of the information society and concepts of digital culture serve as the theoretical foundation of this study. In the research process, theoretical methods were used - analysis of scientific literature, interdisciplinary analysis, systematic analysis, pedagogical interpretation, comparison, generalization and concretization, as well as empirical methods - questionnaires, tests and surveys.

Web-conferencing technologies are of particular importance in the process of training future teachers in a digital education environment. Webinars, virtual meetings, and online communication formats provide synchronous and asynchronous communication, increasing the interactivity of the educational process. Web conferencing platforms allow for simultaneous information exchange through audio and video communication, chats, and shared electronic whiteboards. This serves to stimulate students' independent learning activities and develop their thinking and communication competencies.

While synchronous web conferences provide interaction close to traditional lessons, the asynchronous format allows for access to educational materials at

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any time and independent thinking. Videoconferencing is an important tool for developing distance learning, creating a team learning environment, and enhancing knowledge exchange.



Developing the psychological and pedagogical preparation of future teachers in the context of a digital education system is one of the priority tasks of modern education, requiring innovative technologies, scientifically based approaches, and effective pedagogical strategies.

Discussion

In today's rapidly developing digital education system, the issue of developing the psychological and pedagogical preparation of future teachers is becoming one of the central problems of educational theory and practice. Because the digital environment is fundamentally changing not only the content and forms of education, but also the relationship between the teacher and the learner. This requires the teacher not only to have knowledge in the subject, but also to effectively use modern information and communication technologies, manage the digital pedagogical environment, and organize education taking into account the psychological characteristics of students.

In the context of digital education, the role of the teacher is expanding beyond the traditional function of a teacher as a facilitator, tutor, and consultant. These changes require a reconsideration of the substantive and technological aspects of pedagogical activity. In particular, the psychological and pedagogical training of the teacher is of decisive importance in developing students' ability to learn independently, forming their critical thinking, information sorting, and analysis skills.

At the same time, the increased flow of information in the digital educational environment, the predominance of virtual communication, and the individualization of the educational process also affect the psychology of students. In such conditions, the teacher's empathy, communicativeness, stress tolerance, and psychological support skills become especially important. Therefore, in the process of training future teachers, it is necessary to pay

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attention not only to their professional knowledge and skills, but also to the development of their personal and psychological qualities.

The results of the discussion show that psychological and pedagogical training is a multi-component system that includes motivational, cognitive, practical and reflexive components. The motivational component determines the teacher's interest in the profession and the desire for self-development, while the cognitive component covers digital educational technologies and pedagogical knowledge. The practical component represents the skills of applying this knowledge in the real educational process, and the reflexive component represents the ability to analyze and improve one's own activities.

Also, the effective use of tools such as web conferences, online platforms, virtual laboratories in a digital educational environment determines the level of training of future teachers. These tools create the opportunity to interactively organize the educational process, increase student activity, and meet their individual needs. However, for this, along with digital competence, teachers must have the skills to use them in accordance with pedagogical goals.

The development of psychological and pedagogical training of future teachers for effective work in the digital education system is a complex and continuous process, which requires updating the content of education, introducing innovative technologies, and widely using person-oriented approaches. This, in turn, is an important condition for training modern, competitive, and highly qualified pedagogical personnel.

Conclusion


The results of the study show that the psychological and pedagogical training of future teachers is important for working in a digital educational environment. This training includes not only the effective use of modern technologies, but also the development of the teacher's psychological stability, communicative and reflexive skills, and innovative thinking. Also, the rational use of digital tools such as web conferences, online platforms, and virtual laboratories increases the teacher's professional efficiency.

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In the process of training future teachers, it is important to comprehensively develop motivational, cognitive, practical and reflexive components. This allows individualizing the educational process, increasing student activity and stimulating their interest. Thus, the formation of psychological and pedagogical training of teachers in the context of digital education ensures the quality of modern education, serves to organize pedagogical processes in an innovative and effective way.

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