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Педевтологія

ЗБІРНИК НАУКОВИХ ПРАЦЬ

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The journal contains scientific articles on the current problems of pedeutology, which reveal the issues of European integration processes and their impact on the development of education, general issues of school education and training, current problems of the theory and methods of education, general and subject didactics, problems of teacher training, and the history of pedagogy.

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У журналі вміщені наукові статті з актуальних проблем педевтології, в яких розкриваються питання євроінтеграційних процесів та їх впливу на розвиток освіти, загальні питання шкільної освіти та навчання, актуальні проблеми теорії і методики виховання, загальна та предметна дидактика, проблеми підготовки вчителя, історія педагогіки.

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Teacher preparation for implementation of E-learning in the educational process of a German high school

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Abstract

The article examines the problem of using electronic learning (E-learning) in the training of future teachers in German universities, which is a fairly new and at the same time promising direction of comparative pedagogy. This problem has gained particularly active development in recent years, which is largely due to the spread of digital forms of education, which were recognized in Germany as a special category of the latest educational technologies. It is assumed that the constant introduction of new pedagogical technologies will provide wider opportunities for the development of pedagogical universities in Germany and maintain competitiveness in the international market of educational services. It is believed that successful E-learning scenarios take into account the necessary didactic conditions of learning in different contexts, such as authentic or social learning contexts, and provide substantial digital support for learning materials. The authors consider the use of digital learning tools, which have a differentiated presentation and characterize the most widespread types of E-learning used in the training of future teachers in Germany, and cover the modern spectrum of posting event scenarios and lecture materials on the Internet for fully virtual teaching, namely: computer online computer training, internet training, blended learning, exclusively virtual training, and distance training on the Internet. An important aspect of E-learning is the tools and media for its implementation, which include software for portals, a system for managing administrative functions (personnel management and student management), course management, a learning platform, and tools for creating and collaborating on a network. E-learning is widely used in German universities; it supports learning processes through the use of various digital technologies that provide operations in various ways. Teachers are offered a choice of teaching and learning scenarios, and the e-semester reserve is aimed at further supporting classroom teaching.

Keywords: E-learning , distance learning, online computer learning, Internet learning, blended learning, exclusively virtual learning

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Підготовка викладача до здійснення Е-навчання в освітньому процесі вищої школи Німеччини

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Анотація

У статті розглянуто проблему використання електронного навчання (Е-навчання) у підготовці майбутніх учителів в університетах Німеччини, що є достатньо новим і водночас перспективним напрямом порівняльної педагогіки. Особливо активного розвитку ця проблема набула в останні роки, що значною мірою обумовлено поширенням цифрових форм навчання, котрі були визнані у Німеччині особливою категорією новітніх освітніх технологій. Передбачається, що постійне впровадження нових педагогічних технологій надасть більш широких можливостей для розвитку педагогічних університетів Німеччини та підтримання конкурентоспроможності на міжнародному ринку освітніх послуг. Успішні сценарії Е-навчання враховують необхідні дидактичні умови навчання в різних контекстах, наприклад автентичний або соціальний контексти навчання та забезпечують суттєву цифрову підтримку навчальних матеріалів. Автори розглядають використання цифрових засобів навчання, що має диференційоване представлення та характеризують найбільш розповсюджені види Е-навчання, котрі використовуються у підготовці майбутнього вчителя в Німеччині та охоплюють сучасний спектр розміщення сценаріїв подій та матеріалів лекцій в Інтернеті для повністю віртуального викладання, а саме: комп'ютерне навчання в режимі онлайн, інтернет-навчання, змішане навчання (Blended Learning), виключно віртуальне навчання, дистанційне навчання в Інтернеті. Важливим аспектом Е-навчання є інструменти та медійні засоби реалізації Е-навчання, до яких відносять програмне забезпечення для порталів, систему управління адміністративними функціями (управління персоналом та управління студентами) та управління курсами, навчальною платформою, інструментами для створення та для спільної роботи в мережі. Е-навчання широко використовується в університетах Німеччини, воно підтримує процеси навчання завдяки використанню різних цифрових технологій, що забезпечують виконання операцій різними способами. Викладачам пропонується вибір навчальних сценаріїв викладання та навчання, а резерв електронного семестру спрямований на подальшу підтримку викладання в аудиторіях.

Ключові слова: Е-навчання; дистанційне навчання, комп'ютерне навчання в режимі онлайн, інтернет-навчання, змішане навчання, виключно віртуальне навчання

Statement of the problem. The digital revolution is a defining feature of modern higher education, opening up new opportunities for learning: online formats facilitate individual support, cultural exchange, and virtual mobility regardless of time or place, and international students gain additional opportunities. Digital learning tools, deployed as universal learning tools, require the teacher of a higher education institution to acquire new competencies.

Students must also adapt to take e-courses, acquiring knowledge, abilities, and skills remotely, participating in online discussions of specialized topics, and accessing the necessary materials, which in German pedagogy is defined by the concept of «use of ICT for learning» in contrast to the previous concept of «learning to use ICT», which involved learning to use digital media as an end in itself. An important prerequisite for digital learning is either stationary computers or mobile end devices that can be used in very different ways [9].

In the case of using the latest digital learning tools, such as MOOCs, the main emphasis is on self-regulated learning. In this case, it complements the formal training of a higher education institution, which allows presenting the content in multimedia form. Germany also uses «flipped classroom models» that offer online knowledge sharing, such as using a video lecture as a means of preparing for class. Blogs, wikis, managers, and social

networks enable learning through social and collaborative learning.

Analysis of recent research and publications. In the conditions of Ukraine's entry into the European educational space, electronic learning (E-learning) is becoming a favorite in the general system of distance education due to the development of the Internet and the spread of various mobile devices. Successful E-learning is preceded by an understanding by each participant of the need for cognitive activity, their own ability for professional training, and their readiness to cooperate in educational online environments. Recently, intensive research and technological and practical electronic education have developed in the world and in Ukraine. The transformation was carried out step by step, in a small series of transitions: the intense information of information and communication technologies (ICT), the revolution in the use of Internet coverage and a significant simplification of the extension to the latter, the emergence of new technologies of web-based communal services of learning, and its organisation.

The works of Ukrainian scientists are devoted to issues of informatization of education, problems of comparative pedagogy, organisation of electronic, distance, and online learning, and didactic problems of introducing E-learning technologies in higher education, namely: Akimova O. [21], Dmitrenko N. [6], Drobakha L. [11], Gromov I. [21], Ihnatova O. [11], Kaplinskiy V. [1], Khamska N. [21], Kizim S. [6], Kobysia A. [15], Kolomiiets A. [21], Lazarenko N. [10], Nahorniak S. [6], Sapohov M. [2], Voloshyna O. [6], Zhovnych O. [10].

The purpose of the article is an overview of the process of preparing a future teacher for the use of E-learning in a higher education institution in Germany

Summary of the main material. The experience of Germany shows the relevance of a mixed form of education when E-learning is integrated with digital content and classroom learning; that is, there is a combination of online and offline learning stages. This makes it possible to apply various teaching methods and supplement the social aspect of personal communication with the help of technical means. E-assessments and e-exams facilitate digital exam preparation with fast feedback. German scientists predict the inclusion of artificial intelligence, the integration of game elements (gamification), and 360-degree videos in the mixed form of education.

Studying the practical experience of Germany shows that higher education institutions use a large number of modern digital formats. For the most part, online offerings complement traditional day-time learning. Accordingly, students prepare for seminars using video, for example, by completing self-study programmes during classroom sessions or making group presentations using digital media. Some institutions of higher education do not sufficiently use the available potential. One of the pioneers in the field of digital learning is Aachen University (RWTH). The university promotes the entire range of E-learning formats in all faculties. As a result, video tutorials, virtual labs, and interactive learning platforms, among others, are now part of everyday student life [7].

German scientists note [22] that digitization promises didactic innovations: electronic tools promote flexibility, methodological diversity, and motivation for learning. Another advantage, especially for international students, is the independence it provides in terms of place and time. Online formats are accessible from around the world, and chat rooms and forums facilitate virtual mobility and cross-cultural exchange. It is also easier to overcome language barriers with E-learning modules if they can be made available in different languages. In addition, digital education prepares students for practical activities, which are increasingly characterised by digitalization [22].

In the daily functioning of institutions of higher pedagogical education in Germany, there are a large number of electronic educational projects and entire networks of projects that receive significant state grants, investigate problems at the level of strategies, technologies, didactics and integration of educational programmes, marketing, legal management, and ensuring the quality control of education. Thus, the HIS-Projekt «Neue Medien – Nutzungs-, Planungs-, Organisationskonzepte» (HIS «New Media Schemes of Application, Planning, and Organisation») analyses measures to support the structural challenges faced by universities and ways to solve them [14].

The websites of the universities (Digitalisierung gestalten digital-made-in.de) indicate that the project is a review of federal and state funding strategies in the field of new media for universities in Germany. The task of the project at the first stage was a comprehensive presentation of current federal and state funding programmes and the identification of strategies for setting trends for federal states and universities regarding reorganisation, infrastructure development, management, and implementation of resources. Methodologically, in the format of expert discussions with specialists, cooperation with universities was carried out, and interviews were conducted with those responsible for the use of media technologies in the universities of the federal lands. The second stage was the use of media technologies in university teaching, which was based on long-term and temporary funding measures from the federal and state governments [5].

The rapid development of virtual forms in education and the development of a clear and sufficiently differentiated typology of virtual teaching are now purely propaedeutic in nature, so it is currently impossible to use a single system. According to R. Schulmeister, the use of elements of augmented reality in the educational process of a higher education institution can be implemented as follows: 1) face-to-face meeting (lecture or seminar) plus WWW «scenario» (WWW-Script); 2) face-to-face meeting (plus «script») plus communication platform; 3) an in-person seminar alternating with the use of a virtual textbook or conducting a virtual seminar; 4) a purely virtual workshop, or completely independent learning, limited by the structure according to the planned scenarios [19].

Since the use of digital learning tools has a differentiated presentation, let us characterise the most widespread types of E-learning used in the training of future teachers in Germany and cover the modern spectrum of posting event scenarios and lecture materials on the Internet for fully virtual teaching.

Online computer training The accelerated development of the field of automated teaching began with virtual forms of teaching, which are not included in E-learning in the narrow sense because they do not meet the criterion of network teaching, that is, teaching using offline educational materials or a computer based on CBT - Computer Based Trainings, which uses variable media. Compared to online teaching methods, learning materials for offline use have the advantage that the learner can use them regardless of the transmission speed available to him (broadband network, ISDN, or analogue modem). However, in the light of networked learning methods, a crucial shortcoming of these early digital learning materials is undoubtedly the fact that offline media does not fully support communicative interaction and collaboration [18].

Internet learning. The further development of offline learning and the whole paradigm, which offers wider opportunities to higher education institutions, is connected with the development of a special online form of teaching, which has acquired the name of web trainings (WBT - Web Based Trainings), which are implemented using the Internet. An advantage of networked learning is that content can be dynamically processed and continuously updated in network-supported learning modules. In addition to the interactive and multimedia preparation of educational content, feedback between the teacher and the student is included, which helps to strengthen the motivational support of didactic processes and reduce the risk of dropping out of the course. The researchers note that WBT is more suitable for the development of such skills as communication, teamwork, and problem-solving skills since these skills can be widely practiced using additional communication channels (e-mail, messengers, chats, and forums). Compared to CBT, the disadvantages of WBT are the dependence on Internet access, the level of multimedia content preparation, and the very high data transfer speed [14].

Blended Learning. Important forms of E-learning include «hybrid learning mechanisms», or mixed learning scenarios, and fully virtual learning scenarios. M. Kerres writes about this in the work «Multimediale und telemediale Lernumgebungen. Konzeption und Entwicklung» [13]. Blended learning is characterised by the author as a combination of face-to-face teaching with online courses, which requires methodical and didactic reorganisation of the content, new teacher qualifications, and appropriate technological means. Currently, blended learning is implemented in a large number of different scenarios, combining virtual and face-to-face components, synchronous and asynchronous organisational forms of learning, as well as phases of joint and individual work in various variations. One of the forms presented on the website for participating universities (Digitalisierung gestalten digital-made-in.de) is face-to-face classes with additional digital elements, through which these E-learning elements become part of personal learning. Face-to-face meetings combined with digital elements adapt classical forms of teaching, such as lectures, seminars, practical or laboratory classes, and complement them with new computer-based elements, such as deepening levels, such as hypertext lexicons, small animations, simulations, and training exercises. This form of E-learning is possible with the use of a large number of different technical means, such as electronic boards («SMART-Board») or shared access to programmes and joint work on a file [5].

Widely used in German universities are the so-called «alternation scenarios», the essence of which is the alternation of real and virtual elements that form a certain unity of face-to-face meetings with online meetings. Such a sequential combination of the presence of on-line and off-line phases may contain both synchronous and time-shifted or asynchronous phases in the network. Such mixed learning scenarios are used, for example, in the sequential alternation of the self-study phase (self-study under the guidance of a teacher), the presence phase (seminars, workshops, trainings, laboratory classes), and the transfer phase (individual practical projects). It also uses sophisticated technical elements such as video conferencing technology (Microsoft NetMeeting with a sound card on the PC, a web camera, and a headset) or audio conferencing systems such as Centra or InterWise with a headset and an application sharing module. The advantage of combining face-to-face phases with virtual phases of teaching is that it facilitates communication between the teacher and the student, promotes the formation of groups, and increases the motivation of students [14; 19; 4].

Exclusively virtual learning and distance learning on the Internet. These forms of E-learning are based on classical forms of learning and are quite freely adapted to the requirements and possibilities of the Internet environment. The content should be structured according to the linear progression of the course or according to the free arrangement of materials. Expository approaches of classical frontal teaching are combined with exploratory, self-directed approaches to teaching, such as constructivism, characterised by the management of individual knowledge through knowledge forums. Self-determination, which became possible for the student due to the free choice of learning pace, as a rule, has a positive effect on the inclusion of new knowledge in previously acquired knowledge through the use of practically moderated seminars, similar to the scenario of a traditional video conference. Methods of two-way communication (chat, e-mail, video streams) or joint use of applications are also used, which allow intensive exchange of information between students and teachers. Due to the improved possibilities of communication on the Internet, the use of such forms of teaching as open and closed online discussions, online polls and voting, role-playing games, group reports, or training cycles

accompanying the project has also been recognised as effective [18; 20].

Virtual teaching leads to a shift in the role of teaching towards coaching, tutoring, and coaching, especially in the management of virtual courses. As for the organisation of virtual courses, they are usually held as individual courses or as a whole course of study in traditional face-to-face programmes, as well as in «virtual universities» (Virtuellen Hochschulen), such as a virtual university of applied sciences or teleakademie Furtwangen (der Teleakademie Furtwangen) [8]. This type of training is used not only in university training but also in upgrading the qualifications of graduates and employees. In terms of continuing education, online classes have the advantage that travel and accommodation costs are excluded, and the course can be arranged flexibly in terms of time and place of residence.

In this way, digitalization helps to make higher education institutions in Germany more influential and creates new ways of accessing education and connecting with schools. Digitization plays an important role in the strategic orientation of higher education institutions and regional and national research centres in Germany. The goal is for digitalization to contribute to the effective development of universities, not to transform classroom universities into online universities. All participants in the higher education system are called upon to formulate common goals and contribute to their realisation individually and collectively.

Digitization of the teaching process in higher education institutions facilitates access to education for target groups whose individual life situations do not allow offline education. Teachers in higher education institutions integrate digital technologies into the teaching process, as this supports the acquisition and development of comprehensive digital skills in the sense of the definitions of «computer skills» and «learning skills» of the European Framework of Reference for Key Competences for Lifelong Learning. For this purpose, university teachers should be able to identify current and future technological developments in view of the possibility of their application in the teaching-learning process [10, p. 540].

The analysis of the work experience of German higher education institutions proves that students' skills in working with and using digital technologies and tools are acquired and improved, in particular, through digital practice in teaching and research. Special opportunities consist of the use of digital technologies for intensive and interactive involvement of students in teaching and learning processes. The capabilities of digital tools can be used, in particular, in research-based learning and can have a beneficial effect on the process from question development to knowledge-seeking methodology, preparation, and presentation of results. First of all, it concerns the expansion of information skills related to research. When developing educational programmes, the opportunities and requirements of digitalization are taken into account; this applies in particular to STEM subjects [17]. The autonomy of universities and the freedom of research and teaching, according to German scientists, are designed to continue, develop, and adapt educational programmes from the point of view of acquiring skills in the handling and use of digital technologies and tools. It is assumed that the further development of education will have a more technical nature, which will lead to significant changes in didactics and the organisation of training. Digital tools should help integrate science-oriented content into teaching, for example, virtual laboratories, research databases, digital simulations, and digitally supported collaboration (for example, in problem-based learning) [17].

Technical requirements are a benchmark for ensuring the quality of E-learning . For high-quality digital learning, it is crucial that digital technologies and didactics are connected. Quality assurance should extend to content, technology, and didactic concepts. And thanks to certification, mutual recognition between institutions of higher education can be facilitated. As a rule, quality assurance is carried out as part of the accreditation process. Therefore, during the discussion with the Accreditation Council, the prospects for digital courses are studied and areas of action are determined. Institutions of higher education play the role of a scientific companion to digital changes in the world of teaching and learning in schools and universities. Their task is, in particular, to check the effectiveness of digitization measures at individual stages of education and to contribute to the further development of digital education. Offering services and support for teachers is important for the spread of digitalization in higher education institutions [16].

The development and creation of digital media and E-learning scenarios, as well as their subsequent implementation and use, require additional resources and incentives. German higher education institutions have digitalized most of their administration and service delivery processes and have, for example, e-campus and learning management systems (e-administration). As digital platforms for E-learning processes, they serve to distribute content, communicate between teachers and students, and manage organisational processes. An important area of activity for further development is the creation of solutions for connecting e-campuses that will allow inter-university exchange.

Among other things, new digital methods and tools expand the possibilities of data collection and purpose and therefore require special attention to data protection and security requirements. As an institution for the storage and delivery of knowledge, university libraries are the central interface for the digitization of teaching and research. In order to take into account research information systems that support the research process or library systems that support the teaching process, care should be taken to ensure that different software systems can serve as interfaces between research and teaching [1, p. 8].

An up-to-date market overview and detailed product information on German-language educational software is provided by the joint service of the federal and state governments for the German education system or the educational software atlas of the Institute for Education in the Information Society (IBI – Instituts für Bildung in der Informationsgesellschaft, Berlin) and the Institute for Educational Resources of Mass Information (IfB – Instituts für Bildungsmedien, Frankfurt) [12]. In order to guarantee the searchability and evaluation of educational offers supported by the network, uniform metadata standards are needed, which are used to record all the characteristics of the relevant content related to the users and greatly facilitate the transfer of digital educational content. Currently, a large number of different metadata standards are used at the international level (for example, AICC, Ariadne, Dublin Core, FGDC, IMS, LMML, LOM, PMML, RDF, XML DTD, and SCORM) [14].

Currently, E-learning in German universities is characterised by a wide variety of offers and activities. Working groups of participating universities on E-learning (ELAK-E-learning -Arbeitskreis) are created to coordinate activities related to the development and implementation of projects to be used in many universities. The working group serves, on the one hand, for the exchange of experience and, on the other hand, for the development and implementation of projects to be used in many universities.

Modern technical infrastructure is important for the development of innovative teaching and learning scenarios, and the use of educational platforms plays a strategically important role. For most students and teachers, educational platforms are usually the first point of contact with E-learning . Pedagogical universities adhere to the open-source concept when choosing appropriate educational platforms. The most commonly used systems are Stud.IP, Moodle, and ILIAS, which provide for the exchange of data between management systems such as HIS-LSF and the educational platforms used. Thanks to Campus Connect, the universities of Baden-Württemberg aim to connect administrative systems with educational platforms. The aim is to simplify the administrative process of course creation and thus further support E-learning for university teaching [9].

Conclusions. Thus, E-learning is widely used in German universities; it supports learning processes through the use of various digital technologies that provide operations in different ways. Teachers are offered a choice of teaching and learning scenarios, and the e-semester reserve is aimed at further supporting classroom teaching.

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Modernization of professional activities in the field of dual education in Germany

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Abstract

Rapid globalization processes that have been taking place recently have caused changes not only in the global economy and finance, but also in the labor market, but their impact on the education system is the most noticeable. The search for ways to solve the problem of training young professionals and their adaptation to the labor market is typical for both domestic and foreign theory and practice. Analysis of international experience in solving these problems is important for improving the national situation. The experience of Germany was chosen because of the relatively low unemployment rate in this country and the well-organized transition of young people from the educational system to professional activity. Vocational training of future specialists in Ukraine is a key aspect of the concept of lifelong learning, as well as retraining and advanced training of employees in various sectors of state production. It is aimed at training practitioners and currently ensures the continuity and consistency of the formation of solid knowledge in the younger generation, which determines general cultural, social and professional competence. Effective implementation of vocational guidance needs among young people and practical orientation of training. The article analyses the modernization processes of professional activity in the field of dual education in Germany. The author uses the deductive method and the chronological and territorial principles to formulate generalized and systematic conclusions of the study. It is established that professional activity in the field of vocational education in Germany depends not only on national and regional policies, but also on joint decisions of the European Council on Education. The main goals of modernization (sustainable development of vocational education, accessibility, mobility, digitalization) and ways of their implementation are identified and characterized.

Keywords: vocational training, dual education, modernization processes, Germany

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Модернізація професійної діяльності в галузі дуальної освіти Німеччини

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Анотація

Стрімкі глобалізаційні процеси, що відбуваються останнім часом викликають зміни не лише в світовій економіці і фінансах, а й на ринку праці, але найбільш помітними є їх впливи на систему освіти. Пошуки шляхів розв'язання проблеми підготовки молодих фахівців та їх адаптація на ринку праці характерні як для вітчизняної так і для зарубіжної теорії і практики. Аналіз міжнародного досвіду з вирішення означених проблем є важливим для покращення вітчизняного стану справ. Досвід Німеччини обраний з причини відносно низького рівня безробіття в цій країні, добре організованого переходу молоді з освітньої системи до професійної діяльності. Професійна підготовка майбутніх фахівців в Україні є ключовим моментом концепції навчання впродовж життя, а також перепідготовки та підвищення кваліфікації працівників різних галузей державного виробництва. Вона спрямована на підготовку фахівців-практиків і нині дозволяє забезпечити неперервність та послідовність формування у молодого покоління міцних знань, що визначають загальнокультурну, соціальну і професійну компетентність. Ефективну реалізацію профорієнтаційних потреб серед молоді і практичну спрямованість навчання. У статті проаналізовано модернізаційні процеси професійної діяльності в сфері дуальної освіти Німеччини. Авторкою, з використанням дедуктивного методу та послуговуючись хронологічним та територіальним принципами, з метою формулювання узагальнених та систематизованих висновків дослідження. Встановлено, що професійна діяльність в сфері професійної освіти Німеччини залежить не лише від національної та регіональної політики, а й від спільних рішень Європейської Ради з питань освіти. Визначено та охарактеризовано основні цілі модернізації (сталий розвиток професійної освіти, доступність, мобільність, діджиталізація) та шляхи їх реалізації.

Ключові слова: професійна підготовка, дуальна освіта, модернізаційні процеси, Німеччина

Statement of the problem. The modernization of the national education system is due to the influence of many factors, both global and local. Education is now at a crossroads where the difficulties of transition to a new era of post-industrial information culture are focused, such as uncertainty of the future, information and later digital revolutions, rapid obsolescence of some knowledge and ways of working, socio-economic and political problems, etc. These factors necessitate a transition to education that not only meets the needs of modern society, but also has a prognostic and anticipatory character.

The current development of the vocational education system in Ukraine is defined as transformational. Recent years have been characterised by the adoption of a number of strategic and programme documents containing measures to modernise the national vocational education system. However, a whole range of problems related to insufficient funding, obsolescence, and now destruction in some cities, of material and technical support, reduced funding for educational institutions, etc. have not yet been resolved. In recent years, and especially since 2022, youth migration processes have also intensified due to Russia's full-scale invasion of Ukraine and young people's choice of foreign (primarily in Poland, the Czech Republic, Germany, Slovakia, Romania, etc.) educational institutions. As a result of these and other processes, domestic enterprises do not receive sufficient quality labour resources, which further exacerbates the crisis of business - vocational education relations [7, p.6].

Therefore, we consider it expedient and timely to study foreign experience in organising the training of future specialists in order to implement the best practices in the domestic system of vocational training of young people, for the post-war economic recovery and further development of the state.

Analysis of recent research and publications. In 2020, Ukraine adopted the Vocational Education Development Strategy for 2021-2023. The document outlines the main objectives of vocational education reform: the formation of an effective management and financing system, ensuring the quality of vocational education and strengthening cooperation with business [2].

The peculiarities of the interaction between vocational education and the labour market, their innovative ways of development, didactic principles of vocational training have been studied by well-known Ukrainian scientists: V. Andrushchenko, N. Nychkalo, V. Radkevych, V. Kremen, T. Kozak, S. Nikolayenko, S. Tkachuk, and others. These authors pay attention to organisational and methodological issues, most of which are aimed at solving current problems and resolving problematic situations in vocational training. The training of qualified specialists in the system of higher education is carried out by such domestic scholars as: O. Akimova, R. Hurevych, V. Kobysia, V. Frytsiuk, N. Hamska and others, who, in their works, emphasise the need to introduce innovative methods and technologies in the educational process of a higher education institution (HEI).

C. Tkachuk notes that any increase in the efficiency of vocational education in the future will be associated with the further development of the system towards decentralisation and demand orientation. The scientist emphasises that optimisation of the network of vocational education institutions and bringing educational programmes in line with European standards and in accordance with the needs of the market industry are now a priority [4, p.270].

V. Radkevych argues that improving the quality of vocational education and training is a prerequisite for ensuring sustainable development of society, gender equality, and human potential development in order to achieve the strategic development goals agreed at the international and national levels. That is why it is important to expand access to quality vocational education for all, to increase the capacity of educational

systems to train innovative specialists to meet the challenges of sustainable development, to use information, communication and energy-efficient technologies more effectively in these processes [3, p.9]. The development of creative cooperation in interstate cooperation, implementation of joint research projects, comparative analysis of concepts, programmes and methods, taking into account the results of completed interdisciplinary research on vocational pedagogy will contribute to the mutual enrichment of the system of vocational education and training, as expressed by the Academic Secretary of the National Academy of Pedagogical Sciences of Ukraine N. Nychkalo in her monograph [5, p. 19].

The team of authors, headed by academician R. Gurevych, state that the experience of those countries that have achieved economic success (primarily Austria, Holland, Germany, Japan, South Korea, Singapore, Switzerland, and others) is quite important for the effective development of the national system of vocational education and training. Scientists point out that well-organised vocational education can contribute to the economic recovery of a country. It is also an integral part of people's general abilities, which, in the face of significant uncertainty in the development of production systems, allow them to adapt to new professions. Vocational education performs the function of training people, taking into account their interests and abilities to perform various professional roles and tasks that arise in society [6, p.10-11].

The purpose of the article is to define and substantiate the modernisation processes in the field of vocational education in the dual form of education in Germany.

Summary of the main material. The content of this article is presented using the deductive method, i.e., our conclusions are based on a number of preconditions and factors that are true at the moment. In addition, we used the chronological and territorial principles to formulate generalised and systematic conclusions.

Since the purpose of the study is to analyse the modernisation processes in the field of vocational education based on the experience of Germany, which is a member of the European Union (EU), we consider it necessary to note that pan-European educational processes directly affect the German education system. Thus, in Lisbon in 2000, the European Council noted that the EU is on the verge of a qualitative leap caused by globalisation and the knowledge-based economy and agreed on a strategic goal by 2010: to make the Union the most competitive and dynamic knowledge-based economy capable of sustainable economic growth with more quality jobs and social cohesion.

In 2002, the Stockholm European Council created a work programme on the future goals of education and training systems. The programme focuses on three strategic goals, which are centred on new basic skills, information technology, mathematics, and science and technology:

- improving the quality and efficiency of education and training systems in the EU;
- promoting access to education and training for all;
- opening up education and training systems to the general public [10].

After that, a number of initiatives were implemented at the European level and significant results were achieved in the areas of academic mobility, lifelong learning, innovative development in vocational education and training, higher education, assessment and quality assurance of the educational process, E-learning and international cooperation.

The Copenhagen Declaration of 2002 launched a European strategy to intensify cooperation in vocational education and training, known as the Copenhagen Process. Cooperation within the Copenhagen Process has accelerated the modernisation of vocational education and training in many EU member states and candidate countries, and contributed to the achievement of Europe's strategic goals [11]. Further, a number of other documents supporting vocational education and training were developed and ratified: The Maastricht (2004), Helsinki (2006), Bordeaux (2008) and Brussels (2010) communiqués, as well as the Riga Conclusions (2015).

Another significant measure to improve vocational education and training was the development and signing of the 2020 Osnabrucker Declaration on Vocational Education and Training as a Driver for a Recovery and Equitable Transition to a Digital and Green Economy. Ministers responsible for EU vocational education and training reaffirmed the commitment to develop a new set of vocational education and training actions for the period 2021-2025 to complement and implement the vision and strategic objectives set out in the Council Recommendation on vocational education and training for sustainable competitiveness, social justice and resilience. To continue to develop the European Vocational Education and Training Area through forward-looking and innovative education and training systems in order to support digital and environmental transformation and improve employability and competitiveness, thus contributing to economic growth. Close partnership with social partners is essential to achieve the goals set out in the Osnabrück Declaration [12].

Against the backdrop of the European Council's proposal to develop vocational education and training for sustainable competitiveness, social justice and sustainability and the renewed European Agenda, the Osnabrück Declaration focuses on four main areas for the period 2021-2025:

1. Sustainability and excellence through high quality, inclusive and flexible vocational education and training.
2. Creating a new culture of lifelong learning - the importance of vocational education and training and digitisation.
3. Sustainable development - a green perspective in vocational education and training.
4. The European Vocational Education and Training Area is based on the principle of due regard for social dialogue and the need for close partnership with a range

of stakeholders, including social partners, enterprises, employers' organisations, chambers, industry associations, learner representatives, national, regional and local authorities, employment services and social economy organisations. Places of study and companies play a central role in providing modern and high-quality vocational education [12].

The analysis of the Osnabrück Declaration allowed us to identify several goals in the strategic guidelines for the modernisation of vocational education in the EU countries for the near future and indicative ways to achieve them.

Objective 1. Sustainability and excellence through high quality, inclusive and flexible vocational education and training systems that respond flexibly and appropriately to new technologies and business models, digitalisation, artificial intelligence, demographic change, climate change and the economic crisis caused by COVID-19. Innovations in vocational education are closely linked to new competences, curricula, teaching methods and forecasting tools. Therefore, it is necessary to harness the potential of digital learning and artificial intelligence to help learners develop their knowledge and competences.

Ways to implement: facilitate the exchange of innovative experiences and mutual learning on innovative policy reforms and best practices in vocational education, taking into account the challenges of sustainable development and digitalisation. Developing and strengthening centres of excellence for vocational education in terms of innovation centres and skills development environments with education, training and research, VET, higher education and research in selected areas or socio-economic challenges, including entrepreneurship and the creation of digital and innovative VET resources for all.

Supporting the development of digital infrastructure, including artificial intelligence. Strengthening workplace and enterprise learning through the implementation of the European Framework for Quality and Sustainable Learning and the use of demand-responsive support services and strategic learning initiatives. Developing national and regional systems for collecting competence data, including early identification of skills needs and tracking graduate career paths. Enabling social partners, education policy makers, stakeholders and providers to adapt and update their education services, curricula and specifications in a timely and effective manner.

Objective 2. Developing a new culture of lifelong learning - the importance of continuous vocational education and training.

Ways of implementation: Lifelong learning means enabling people to acquire a wide range of competences and move through the education and training system using the most modern technologies and learning tools in different educational institutions. Therefore, a systematic approach should be applied in continuing vocational education and training to ensure adaptation to technological change throughout the working life.

All stakeholders - national and regional authorities, social partners, education providers and learners - are responsible for further developing the new culture of lifelong learning and ensuring that lifelong learning systems are of high quality, accessible and inclusive, as well as relevant and sustainable. The new learning culture means that people benefit from career guidance, have access to high-quality and inclusive vocational education and training opportunities, and acquire key competences, and thus actively manage all stages of education, training and employment with the support of all stakeholders taking increased responsibility. Facilitating mobility for study and work in Europe, access to transparent and reliable information on qualifications, training opportunities and labour market development, promoting the interconnection of digital platforms for learning and professional development, and the award of digital degrees and certificates (Europass Digital Credentials) by educational institutions across Europe, which will contribute to transparency and recognition of qualifications in Europe through the new Europass platform.

Objective 3. Sustainable development - a green perspective in vocational education and training. Sustainable development is a cross-cutting issue that affects labour demand, education, skills, occupations and the geographical distribution of jobs and labour.

Ways to implement: Vocational education and training should strive to incorporate sustainable development competences into their regulations and practices. Furthermore, the link between digitalisation and sustainability is central to achieving this goal. The development of digital learning environments can increase access to education for sustainable development, whether in educational institutions, workplaces or at home. Promote initiatives to support cooperation and knowledge exchange between educational institutions and social partners on teaching methods, curricula, guidelines, work-based learning and quality assurance of environmental education and training, using European programmes such as ERASMUS+.

Stimulate the provision of green vocational education and training, including education and training in green technologies and innovations, energy efficiency, circular economy, environmental awareness, sustainable use of teaching and learning materials, digitalisation to reduce climate impact.

Objective 4. European Vocational Training Area and international dimension of vocational education and training. The globalisation of markets and demographic changes require modernisation and adaptation of vocational training systems and institutions at the national, regional and sectoral levels in the EU Member States.

Ways to implement: mobility in vocational education and training has increased significantly over the past two decades, with more than 1.5 million participants and teachers benefiting from mobility within the European Qualifications Framework and Erasmus+. The COVID 19

pandemic has given a new impetus to virtual and hybrid mobility in particular. In the context of demographic change, it will also facilitate cross-border mobility of skilled workers and thus better match labour market demand and supply.

Assist in the preparation of national teams and their participation in the Euroskills competition to strengthen the attractiveness and reputation of vocational education. Cooperation with international organisations, including the OECD, UNESCO, the Council of Europe, the World Bank and other regional vocational education networks around the world, with a focus on a common global agenda (joint international conferences, facilitating the exchange of best practices on regional innovations in vocational education and tools of common interest).

Promote and facilitate the mobility of learners and adult educators by developing support structures and providing information on opportunities in host countries. Ensuring that study programmes are designed in line with the European Framework for Quality and Sustainable Learning and take into account national regulations and collective agreements, including health and safety provisions.

In view of the above, it should be noted that in order to support the successful implementation of the agreed actions, the relevant European organisations should monitor the Osnabrück Declaration and report annually to the Advisory Committee on Vocational Education and Training and the EU Director-Generals for Vocational Education and Training.

As for Germany itself, in November 2015, the German Chamber of Industry and Commerce adopted the Strategic Directions and Areas of Activity for the period up to 2025. The document states that "only a strong vocational education and training system can provide the skilled professionals that the economy and society urgently need, and ensure a competitive and innovative SME sector" [9]. The content of the Strategy shows that vocational education and training is a central element of the German economy.

Vocational training in Germany is the responsibility of the German Chamber of Industry and Commerce (HIC), which is not only a driving force in the implementation of vocational education and training, but also a powerful voice of the business community in educational policy. It should be noted that vocational education and training is developing in the context of rapidly growing demand for labour in a fast-changing environment and is attractive to young people. The INC has the necessary resources for this, which allows it to help its partner companies consolidate their own brand core.

Let's analyse the main guidelines for the development of vocational education in Germany until 2025:

1. Improving the level of professional training through practice. This means that the INC will implement a number of measures to make vocational education and training attractive to high achieving secondary school graduates.

2. Involvement of additional target groups in vocational education and training, which is expected to be done against the background of demographic development and immigration.

3. Shaping the path to the digital economy: by 2025, the impact of digitalisation on the world of work and vocational training is expected to increase significantly.

These benchmarks are to be implemented in the following areas:

1. Ensure and strengthen the quality and attractiveness of vocational education in cooperation with social partners.

2. Promote vocational education and training by engaging school leavers with high academic performance in training.

3. Identify target groups for vocational education and training - develop innovative proposals: continuously expand vocational education and training to other target groups, with a special focus on young refugees.

4. Strengthen the examination process. Ensure uniform national quality of examinations in the field of vocational education and training, develop examinations in a modern, service-oriented and reliable way.

5. Strengthening voluntariness in vocational education and training. Significantly increase the value of voluntary donations from the public, support the work of experts.

6. Strengthening of continuing professional development training, development and launch of models that intensify the marketing of continuing professional development qualifications.

7. Optimising mixed forms of vocational and academic education, testing new training models. Mixed forms ("hybrid models") are available, such as dual education.

8. Expanding the offer of consultancy and services. Chambers of Commerce and Industry will expand their services for companies, including career guidance, qualification and career counselling, assessment of foreign professional qualifications, and implementation of vocational education and training abroad.

9. Establishment of effective vocational training institutions in the regions. Strengthening vocational schools as partners in the dual system to ensure the success of dual learning in general.

10. Active formation of digital education. Expanding the range of educational services, digital formats of teaching and learning.

Vocational education and training in Germany is the engine of the German economy, and thanks to its close proximity to company practice, vocational education and training provides well-trained, qualified specialists. It offers people with a wide range of qualifications a flexible transition to working life and excellent career and development opportunities. It ensures the right mix of knowledge and action and low youth unemployment.

Germany is currently experiencing a huge influx of immigrants, especially refugees, many of whom are not qualified for the German labour market or do not speak the language well enough. The development of vocational education is also affected by the growth of urban centres, the shrinking of rural areas and digitalisation. These are challenges that need to be used in a positive way.

Currently, the dual programme of study as a mixed form of academic and vocational education ("hybrid model") is very popular among young people. This is due to the fact that it combines a higher education diploma with a practical qualification. For this reason, dual learning formats should ensure that in-company training is anchored in the overall curriculum concept and that quality standards are maintained that are comparable to those of dual vocational education.

This is particularly relevant in view of the current considerations for the expansion of hybrid educational formats. This should improve the integration between higher education and vocational education and training. There are no formulated guidelines or detailed requirements for their accreditation for practice-integrated dual educational programmes that do not simultaneously lead to a professional qualification. At the same time, it is important to fill the stages of training in companies with business and practical content, as well as to leave room for company-specific specialisations. Examinations in practically integrated dual training courses should also have high practical relevance and be based on training standards.

Conclusions. Summing up the above, we state that the main goals of the modernisation processes of the development of vocational education and training in the dual system of education in Germany are:

1. Improving the quality and efficiency of education and training systems.
2. Improving the education and training of teachers and tutors.
3. Access to information and communication technologies for all.
4. Efficient use of resources (increased investment in education and training. Costs for both human resources and private companies).
5. Open educational environment (more simplified and democratic access to education and training, simplified transition from one level of the education and training system to another).
6. Increasing the attractiveness of learning by encouraging young people to continue their education or training after completing compulsory education; motivating and enabling adults to continue learning throughout their lives. Developing ways to officially recognize non-formal learning experiences. Opportunities to make learning more attractive both within and outside of formal education and training systems.

The prospects for further research include the possibility of studying the development of the dual education system in the context of digitalisation of modern society and the possibility of a mixed format of the educational process at the theoretical and practical stages of training.

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ACTUAL PROBLEMS OF THE THEORY AND METHODS OF EDUCATION
АКТУАЛЬНІ ПРОБЛЕМИ ТЕОРІЇ І МЕТОДИКИ ВИХОВАННЯ

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Methods of forming a responsible attitude to the system of professional values in future teachers

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Abstract

The article describes the method of forming a responsible attitude to the system of professional values in future teachers. The essence of a responsible attitude to professional pedagogical activity is manifested in: the future teacher's awareness of the value of his profession, his own place in the professional environment, the formation of motives for professional behavior; the teacher has integrated subject and psychological-pedagogical knowledge, formed professional abilities and skills, experience in the practical implementation of professional activities; skillful organization by the teacher of his activity and effective management of it; the teacher's abilities to analyze pedagogical situations and pedagogical reflection; feelings of satisfaction from the results of pedagogical activity, striving for creative implementation of the teacher's duties and overcoming difficulties on the way to professional development. In the process of teaching the educational disciplines «Pedagogy», «Methodology of educational work», «History of pedagogy», «Fundamentals of pedagogical mastery», the methodology of forming a responsible attitude to the system of pedagogical values in future teachers was introduced. The requirements for the teacher's professional competencies were analyzed on the basis of modern documents on education. We determined the content of the educational material, identified semantic connections between its elements. The development of the procedural component consisted in the study of professional experience, the performance of cognitive and practical tasks. In the process of organizing educational activities, both traditional (lectures, practical, laboratory classes) and interactive (group work, business games, problem-based learning, project method) forms of work were introduced.

Keywords: responsible attitude, system of pedagogical values, future teachers, methods of formation a responsible attitude to the system of pedagogical values

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Методика формування в майбутніх педагогів відповідального ставлення до професійних цінностей

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Анотація

У статті розкрита методика формування відповідального ставлення до системи професійних цінностей у майбутніх педагогів. Сутність відповідального ставлення до професійної педагогічної діяльності проявляється в: усвідомленні майбутнім учителем цінності своєї професії, власного місця у професійному середовищі, формуванні мотивів професійної поведінки; наявності у педагога інтегрованих предметних та психолого-педагогічних знань, сформованих професійних умінь та навичок, досвіду практичного здійснення професійної діяльності; вмілої організації педагогом своєї діяльності та ефективного управління нею; здібностях учителя до аналізу педагогічних ситуацій та педагогічної рефлексії; відчутті задоволення від результатів педагогічною діяльністю, прагненні до творчої реалізації обов'язків вчителя та подолання труднощів на шляху до професійного розвитку. У процесі викладання навчальних дисциплін «Педагогіка», «Методика виховної роботи», «Історія педагогіки», «Основи педагогічної майстерності» впроваджували методику формування відповідального ставлення до системи педагогічних цінностей у майбутніх учителів. Були проаналізовано вимоги до професійних компетентностей учителя на основі сучасних документів про освіту. Ми визначили зміст навчального матеріалу, виявили смислові зв'язки між його елементами. Розробка процесуальної складової полягала у вивченні професійного досвіду, виконанні пізнавальних та практичних завдань. У процесі організації навчальної діяльності впроваджували як традиційні (лекції, практичні, лабораторні заняття), так і інтерактивні (групова робота, ділові ігри, проблемне навчання, метод проектів) форми роботи.

Ключові слова: відповідальне ставлення, система педагогічних цінностей; майбутні учителі; методика формування відповідального ставлення до системи педагогічних цінностей

Problem statement. Globalization processes, leading to the convergence and interpenetration of scientific, educational, and cultural contexts, bring to the forefront the issue of the quality of professional preparation of future teachers. The implementation of a professional standard, outlining a broad range of professional and cultural competencies, urges the formation of a specialist's personality who meets the new requirements of professional activity. Accordingly, we consider the harmonization of professional training and professional-cultural development of the future expert as an essential component of professional education.

At the organizational and pedagogical level, it is necessary to take into account the personal qualities, resources, and educational opportunities of the learners, which determine the success of their future professional activity. These pedagogical recommendations are closely aligned with competency-based, cultural, axiological, and individual-activity approaches [11]. Therefore, it is pertinent for higher education instructors to focus on the value-semantic component of the professional preparation of future teachers. One aspect of this direction is the process of activating a responsible attitude of learners towards the system of values in pedagogical activities.

Analysis of Recent Research and Publications. Modern pedagogical understanding of the teacher's professional activity, based on value orientations, largely relies on the achievements of pedagogical theory (G. Ball, I. Bekh, O. Bida, S. Honcharenko, M. Hryniova, I. Ziuziun, A. Ivanchenko, V. Kremen, N. Kuzmina, V. Moljako, A. Rean, V. Rybalka, A. Sbruieva, S. Sisoieva, M. Soldatenkov, M. Yarmachenko, and others). In the domestic science, there are various approaches to studying responsibility: psychological-pedagogical (Z. Borysova, Zh. Zavadska, L. Shevchenko), socio-psychological (L. Sukhinska, T. Sydorova), and role-based (N. Holovko, A. Plakhotnyi, S. Anisimov, A. Gryadunova).

In the context of our scientific interests, we focus on pedagogical values as one of the determinants of person-

al-professional and cultural development of higher education learners during their studies at institutions of higher education.

The aim of the article is to outline the methods of forming a responsible attitude towards the system of pedagogical values in future teachers during the study of pedagogical disciplines.

The concept of «values» is the subject of scientific research in the fields of sociology, psychology, ethics, and pedagogy. O. Lehun, synthesizing various approaches to defining this concept, identifies the following components: awareness of values, meaning that values are normative forms of people's life orientations, socially significant regulators of human activity, as specific evaluations and stereotypes that help individuals think and act in the socio-economic environment; embodiment of values in human life in various forms, whether tangible or ideal (spiritual) values; the opposite direction of values on one hand, and their interconnection on the other, as ideals with reality; the involvement of values in the evaluative and meaning-making activity of individuals [4].

The scientific-theoretical analysis of the definition of «value» indicates various approaches to its understanding, which allows us to determine the following essential characteristics [2]:

- Philosophical interpretation identifies values with a new idea that serves as an individual or social guideline; values are perceived as subjective images and are expressed through certain life conceptions, synonymous with cultural and historical standards, and associated with a specific lifestyle. Values are seen as spiritual foundations that give meaning to human life, organizing reality according to ideals, standard evaluations, and universally recognized norms.

- Psycho-pedagogical concepts consider values as conscious general content formations that determine a person's attitude towards different spheres of life activity (personal, professional, socio-cultural). They are relatively stable, forming an individual's moral position. Thus, the values of each person become concepts and convictions that determine the direction of their behavior, prompt action, define the characteristics of emotions and relationships, and involve the understanding of generalized social experience that individuals gain during their development, which depends on the socio-cultural and educational conditions of the surrounding reality.

An important aspect of the studied problem is the thesis about the interdependence of society's values, individual professional communities, and the value orientations of specific individuals [12].

The specificity of the contemporary understanding of the phenomenon of responsibility lies in the fact that it is considered not only as a characteristic that is essential for performing a certain type of activity but also as a necessary characteristic of human life in general, as the most important life principle of modern individuals, without which the self-preservation of humanity is impossible (H. Jonas) [3].

An individual who is capable of taking responsibility for events in their life proves to be better adapted than one who seeks to blame external circumstances.

The concept of «responsible attitude» is narrower than the concept of «responsibility» A responsible attitude is a person's position that determines the regulation of reactions and the volitional implementation of activities concerning external factors. This conclusion is reached by analyzing modern scientific interpretations of the concept in the aspect of a responsible attitude towards certain contexts of individual activity: attitudes towards life [6], health, nature [5], and education [1].

We believe that the process of forming a responsible attitude towards the system of pedagogical values in future teachers is especially important in the context of educational reforms and the implementation of the ideas of the New Ukrainian School in educational practice.

The methodology for forming a responsible attitude towards the system of pedagogical values in future teachers is based on a complex of pedagogical disciplines, including «Pedagogy» «Methods of Educational Work» «History of Pedagogy» «Foundations of Pedagogical Mastery» and methods of teaching specialized subjects. The content of these disciplines is characterized by didactic, methodological, and developmental opportunities in the context of forming a strong positive motivation in higher education learners to master the profession. These disciplines, as part of the basic cycle, are oriented towards the professional and cultural development of future teachers [8].

During the study of pedagogical disciplines, both traditional forms of educational sessions and non-traditional ones were applied. For example, during a lecture-discussion, the instructor asked preliminary questions such as «What influenced your choice of the teaching profession? », «In your opinion, what can be considered a professional teacher? », «What position does the teaching profession occupy in the ranking of 'Most significant for society'?». The focus was on ethical culture as an essential component of the pedagogical profession. In practical classes, students worked on developing their communicative skills, as well as improving their communicative abilities and language skills in the Ukrainian language. Exercises like the «Informational Labyrinth» were conducted during which students provided definitions of various pedagogical terms and interpreted the main features of the teaching profession [7].

During group discussions, students independently prepared presentations on the topic «Teacher's Code of Ethics» Each group presented and defended its opinion in the context of the announced theme. After the presentation, students answered questions from «opponents» and the instructor; then, they summarized and formulated the general principles of the «Teacher's Code of Ethics» In the process of this activity, most future educators noted that these principles are associated with the work of all individuals engaged in pedagogical activities. At the initiative of one of the groups participating in the discussion, a project called the «Teacher's Oath» was

created. Undoubtedly, such creative work done by students has a reflective character and contributes to the formation of professional values.

In our opinion, the integration of humanitarian disciplines is valuable as it contributes to creating a comprehensive understanding of the studied phenomenon. For example, students majoring in philology, during the study of the topic «Components of Pedagogical Mastery of the Teacher» in the course «Foundations of Pedagogical Mastery» explored the humanistic orientation of the profession using examples from works of Ukrainian literature that presented instances of teachers' professional activities. Future teachers actively shared their impressions during this activity.

During pedagogy classes, business games were actively used with the aim of solving various pedagogical tasks. Participants of the game assumed specific roles, such as facilitator (instructor or student), leaders (presenters representing different opinions), experts (pedagogy department instructors), assistants (helpers to the leaders), provocateurs (students posing provocative questions, pointing out negative facts or controversial issues), recorders (participants who recorded the course of the discussion), and evaluators (students providing objective assessments of presentations, discussions, or decisions) [10].

The use of the case study method during laboratory and practical sessions facilitated the development of critical thinking and the ability to express one's own position and opinions. It also helped students acquire skills for making alternative decisions in non-standard situations.

Furthermore, future teachers developed communication skills, including active listening, reasoned expression, counterarguments, self-assurance, and conviction that they could professionally solve problems in practical situations. Students became more prepared for self-assessment, reflection, and self-correction of their individual communication styles. It is worth noting that future teachers attended such sessions more willingly and, as a rule, showed great enthusiasm, actively engaging and finding the experience enjoyable.

Through active participation, students underwent sessions using the case study method. During one of these sessions, video recordings of lessons from different subjects were presented, and various aspects of participants' behavior were discussed. Additionally, education seekers were asked to analyze the adherence to the teacher's ethical code in the American films «Dead Poets Society» and «The Emperor's Club» The students concluded that the male teacher portrayals depicted in the films serve as role models for every young teacher. After this exercise, during the reflective stage, future teachers expressed the view that an ethical code is essential for modern educators. Adhering to pedagogical tact, applying methods and techniques of educational influence that work in any unpredictable pedagogical situation – all of this is necessary for a teacher's proper work in a school [9].

In our view, the form of interaction through discussion among participants in the educational process fosters their communicative and interactive culture. It teaches them to behave purposefully yet respectfully, to present arguments and counterarguments, and to be capable of abandoning their erroneous judgments while maintaining tolerance towards others' opinions. Undoubtedly, this effectively contributes to the formation of all components of the future teacher's ethical culture.

As for the advantages of the «brainstorming» method, it is important to highlight the promotion of creative thinking. Idea generation occurs within the framework of a clear procedure and a comfortable creative atmosphere. The method activates the participation of all process participants, making them feel equal and involved in the process of generating and discussing ideas, breaking free from conventional thinking patterns, thus avoiding stereotyping and leading to productive ideas.

The implementation of the methods mentioned above has changed the nature of intra-group communication: the focus shifted from individual connections (teacher's question - student's answer) to involving the majority of students in discussing the posed questions. During the creative portfolio work, there was interaction between the instructor and students, characterized by consultations, discussions of works, information, and data. Presenting the portfolio to the group served as a creative report after studying the discipline.

The reflective component of the sessions is especially important. For example, within the framework of a seminar on «Moral Education» students were asked to write down the values they considered most important in pedagogical activities. The records were then shared with everyone, and the students were tasked with arranging them in order of importance for successful professional practice.

To stimulate motivational and cognitive activity among students, besides appropriate educational methods, the method of creating tasks for checking the knowledge of their peers independently was used. We concluded that while preparing these test tasks, education seekers had the opportunity to practice and review the learning material additionally. Moreover, they could experience being a teacher themselves, demonstrating personal qualities. Undoubtedly, such forms of organizing educational activities contribute to the development of creative activity in future educators and, consequently, motivation to acquire the knowledge, skills, and abilities necessary for their future professional work. It also fosters the development of personal qualities such as tolerance, empathy, tactfulness, and more.

During a laboratory session on the topic «Pedagogical Technique in the Structure of Teacher-Pedagogical Communication» students had the chance to demonstrate their knowledge and communicative skills gained in the subject «Speech Culture» This task seemed interesting. They were asked to watch a video clip titled «This is So Similar to a Teacher» which contained phrases violating ethical norms of the profession. The students had to replace these phrases while retaining the content of the statements.

It is essential to emphasize that the completion of studying the discipline «Fundamentals of Pedagogical Mastery» did not mark the end of the work on developing professional competencies. The joint analysis of the achieved level and setting new goals became an effective stimulus for most education seekers to self-improvement. Further discussions of these matters took place through individual consultations, utilizing students' portfolios.

As part of extracurricular activities, future teachers participated in the «I Want to Know Everything!» intellect competition. Curator hours were conducted on topics such as «Behavioral Culture in Higher Education Institutions» «How to Become a Successful Student» and «Features of Student Subculture» A significant stage in shaping a responsible attitude towards the system of pedagogical values in future teachers was the «Pedagogical Marathon» and the student scientific conference dedicated to the anniversary of V. Sukhomlynskyi's birthday.

Conclusion. Therefore, the presented methodology for developing a responsible attitude towards the system of pedagogical values in future teachers within the educational space of higher education institutions is an organized set of traditional (lectures, practical and laboratory sessions) and innovative (brainstorming, role-playing games, case studies, etc.) forms and methods of work. This organization of the educational process reflects a gradual transition from the ability to act in various situations based on initial concepts of the system of pedagogical values, often intuitively, to the readiness of future teachers to carry out independent activities guided by ethical principles and norms in professionally oriented situations.

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Value determination of personal self-fulfillment of gifted youth students at a teaching university

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Abstract

The study of the problem of personal self-realization of gifted youth is recognized as one of the priority directions in the conditions of European integration of higher education, as is proven in the article. Supporting gifted students becomes an important task for society. The value determination of the process of personal self-realization of gifted students is recognized as a priority way of solving this problem in the article. It is noted that this problem acquires special significance when it comes to the future teacher, who must acquire the appropriate skills for raising gifted children during the period of study in institutions of higher education. The concept of «giftedness» will be interpreted in the article as favorable prerequisites for the development, personal attitude, and orientation of a developing young person. At the same time, it is also an individual peculiarity of a person's abilities, thanks to which he achieves success in the chosen field of activity. The article also presents other interpretations of giftedness: as general abilities that determine a person's capabilities for certain activities; as a system of endowments, which are natural prerequisites for abilities; as individual characteristics of cognitive abilities; as the appropriate level of development of abilities that allow the individual to achieve success in various fields of activity; as a peculiar system of abilities in a person, the unity that they form and, in sum, contribute to high achievements. The authors single out the following types of giftedness: artistic giftedness in the fields of art, authorship, music, literature, and sculpture; leadership talent (high intelligence; ability to make decisions and plan for the future; flexibility; sense of responsibility; persistence and enthusiasm; self-confidence; ability to express oneself clearly); creative talent; and academic and intellectual giftedness (observation; sharp thinking; special memory; problem-solving abilities).

Keywords: value determination, personal self-realization, gifted students, future teachers, professional training

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Ціннісна детермінація особистісної самореалізації обдарованої студентської молоді у педагогічному університеті

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Автори заявляють про відсутність конфлікту інтересів.

Анотація

У статті доведено, що в умовах євроінтеграції вищої освіти вивчення проблеми особистісної самореалізації обдарованої молоді визнано одним із пріоритетних напрямів. Підтримка обдарованих студентів постає важливим завданням суспільства. Пріоритетним шляхом вирішення цієї проблеми у статті визнано ціннісну детермінацію процесу особистісної самореалізації обдарованих студентів. Зазначається, що особливої значущості ця проблема набуває, коли йдеться про майбутнього вчителя, який має набути за період навчання у закладах вищої освіти відповідних навичок щодо виховання обдарованих дітей. Поняття «обдарованість» потрактовується у статті як сприятливі передумови розвитку, особиста установка, спрямованість молодої людини, яка розвивається. Разом з тим, це й індивідуальна своєрідність здібностей людини, завдяки яким вона досягає успіхів в обраній галузі діяльності. У статті представлені й інші тлумачення обдарованості: як загальні здібності, що зумовлюють можливості людини до певної діяльності; як система задатків, що є природними передумовами здібностей; індивідуальна характеристика пізнавальних здібностей; як належний рівень розвитку здібностей, що дозволяють особистості досягати успіхів в різних галузях діяльності; як своєрідна система здібностей у людини, єдність, що вони утворюють та у сумі сприяють високим досягненням. Автори виокремлюють такі види обдарованості: художня обдарованість у сферах мистецтва, авторської майстерності, музики, літератури, скульптури; лідерська обдарованість (високий інтелект; здатність приймати рішення, планувати на майбутнє; гнучкість; почуття відповідальності; наполегливість та ентузіазм; впевненість у собі; вміння чітко висловлюватися); творча обдарованість; академічна та інтелектуальна обдарованість (спостережливість; гострота мислення; особлива пам'ять; здібності до розв'язання задач).

Ключові слова: ціннісна детермінація, особистісна самореалізація, обдаровані студенти, майбутні вчителі, професійна підготовка

Statement of the problem. Studying at a higher educational institution is aimed at ensuring maximum mobilization of opportunities and realization of abilities of each student as a subject of activity. Therefore, there is a problem of value determination of personal self-realization of future specialists. The solution to this problem relates to the definition of values as the basis for the formation of personal priorities. Today vital issue is the solution to the problem of the conscious adoption by the future teacher of the chosen profession and the formation of a value attitude towards personal self-improvement as a condition for self-realization [12].

O. Muzyka [5], investigating the value determination of formation and development of a gifted personality, observes that the national tradition of scientific concept of «determination» is connected with the principle of determinism, which in the last century has undergone significant transformations. The reasons for this lie in the logic of science in general and psychology in particular, especially the part that examines personality – Personology [5, p. 10].

Practical realization of value determination of gifted students in higher education establishment involves the study of the nature and ways of implementing the phenomenon of determinism. Having noted that determinism

is one of the main principles of scientific knowledge, which is formed on the natural interaction of factors that are subjected to empirical control, depending on the dominant methodological doctrine, the causal condition of mental manifestations was interpreted very differently. «Determinism appears primarily in the form of causality as a set of circumstances prior to the time of a certain event and its cause» [5, p. 29]. Those authors singled out a number of forms of determinism: «systemic determinism (the dependence of individual components of the system on the properties of the whole); determinism of the type of feedback (the effect influences the cause that produced it); statistical determinism (under similar reasons, there appear various effects that fall under the statistical pattern); target determinism (the purpose preceding the result determines the process of its achievement)» [5, p. 29]. Z. Karpenko connects non-classical psychology with the domination of mutual probability determinism, post-nonclassical – with predominance of explanatory patterns based on neodeterminism, which is regarded as nonlinear, systemic, synergetic. In addition, the integrative post-nonclassical paradigm and the type of determinism corresponding to it are singled out: holarchic (acausal, teleological, synchronic) [3, p. 3].

Analysis of recent research and publications. Various aspects of the problem of value determination of personal self-realization of gifted student youth were studied by domestic scientists: O. Antonova (giftedness as a scientific phenomenon); V. Voloshchuk (diagnosis of intellectual giftedness); V. Homonyuk (modern scientific ideas about self-actualization and self-realization); Yu Hryshko (forming the value of self-realization of future teachers); S. Husakivska (formation of the value-meaning sphere of future teachers); V. Zaviryukha (forming students' ability to professional self-growth); O. Music (subject-value determination of creative giftedness).

The purpose of the article analysis of scientific literature on the problem of value determination in the personal self-realisation of gifted student youth.

Summary of the main material. Determinism is a general principle that is applied both to natural, external to human phenomena, and to the explanation of the causal conditionality of mental processes. O. Tkachenko analyzes the types of determinism: the premechanistic, mechanistic, general biological, biopsychic, sociopsychic, singling out the latter two as being the levels of determination of behavior [13, p. 39-40]. The principle of determinism was modified, when the object of scientific research became a person with his ability to set long-term goals. It is about mental determinism, which explains the influence of the internal life of the individual on the external manifestations of his self-regulation [5, p. 6-19]. The above-mentioned types of determinism relate mainly to the classical stage of development of psychology, which was characterized by a certain level of absolutization of the possibilities of scientific cognition, expressed in orientation of the researchers to a common methodology.

Determination of personality development is an extremely complex multifactorial process, especially as to the gifted student youth. One can agree with M. Chepa, who observes: «One version of the systematic vision for determination of the psyche suggests that the possibility of the emergence and existence of mental phenomena is conditioned by various circumstances (determinants) that can act as causes, consequences, external and internal factors and prerequisites» [10, p. 21].

The relation of value determination and personal development of students was considered in the context of personal development, in which the concept of «determinism» is connected with the notions of «determination», «self-determination», «regulation», «self-regulation», «self-creation», «self-realization». Their meanings intersect, but also have differences. It is obvious, that the concept of «self-creation» and «self-realization» is more suitable for characterizing processes associated with internally determined changes of personality that has gone through the stages of formation, and produced, according to S. Maksimenko, its own «line» of development [4, p. 40-48].

For gifted people who regulate their own development, guided mostly by stable internal value criteria, personality-value regulation is characteristic in a greater extent. Investigating the determinants of formation of a gifted personality should be aimed primarily at identification of value characteristics, which are associated with the main characteristics of development of giftedness; are common to gifted people; distinguish gifted people from the rest [5, p.14].

Investigating value determination of moral formation of the personality, N. Pavlyk makes emphasis on the age peculiarities of moral self-determination of a person. It is in the student age, when the foundations, on which the value-moral core of a person will be built in his later life, are laid. In accordance with the cultural-historical theory of philosophical and psychological concept, the main source of formation of value-semantic sphere is the cultural and historical heritage of the society: values, ideals, criteria of good and evil. The process of moral formation of the individual is optimized by the influence of culture, which embodies the aspirations of people to higher spiritual and moral ideals and forms the value space of moral consciousness (N. Nychkalo). For the domestic traditional science, the emphasis is made on morality and the priority of spiritual values over material things. Meanwhile, modern pedagogical science is characterized by the diffusion of value orientations due to the unstructured character of various types of subcultures, the lack of clear value criteria and moral standards in the society; pragmatic orientation, indifference to the moral-spiritual semantic dimension of being (V. Frankl, E. Fromm) [7, p. 5].

The issue of value determination was considered in the dissertation researches of: O. Badiul «Transformation of values of personality in educational process», 2010; A. Gashenko, «Intrafirm system of values: socio-philosophical analysis», 2004; Y. Grishko «Formation of the value of self-realization of future teachers in the process of professional training», 2009; S. Husakivska «Psychological peculiarities of formation of value-

semantic fields of the future instructors for pre-school educational institutions», 2014; V. Dolzhenko «Education of spiritual values of students' youth in the field of cultural space», 2006; N. Ivantsev «Dynamics of value orientation of student youth during professional training», 2001; N. Maksymchuk «Psychological peculiarities of value orientations of the future teacher formation in the process of professional training», 2000 ; Y. Melnyk «Cognitive and value aspects in socialization of personality», 2011 ; G. Nariadko «Personality in the value paradigm of the society in transition period», 2010 ; N. Nikonchuk «Reflexive-value regulation of development the learning abilities at junior school age», 2009 ; N. Pavlyk «Value determination of moral formation of personality in adolescence age», 2006 ; L. Panchenko «Formation of value orientations of youth in the period of systemic transformation of Ukrainian society», 2003 ; E. Protsenko «Spiritual and value orientations of a personality in the context of philosophical and religious traditions», 2006 ; O. Romanets «Basic values of formation of civil society in Ukraine», 2011 ; T. Severina «Value determination of personal self-improvement of students in educational process at higher pedagogical educational institutions», 2012 ; V. Smetaniak «Psychological peculiarities of value self-determination of high school students», 2003 ; O. Stasko «Psychological significance of conditional values and their influence on formulation of the idealized «I» of the personality», 2006 ; N. Sorokina «State management of formation of value orientation of the present-day Ukrainian society», 2008 ; O. Sofishchenko «Formation of the system of aesthetic values at the students of a pedagogical educational institution», 2002 ; Yu. Sugrobova «Dynamics of formation of the world of values in Ukrainian youth culture», 2007; I. Tabachek «Formation and development of a modern teacher personality», 2005 ; A. Furman «Value-orientation factors of personal development of future psychologists», 2009 ; N. Chutova «Influence of mass media on the formation of value orientations of contemporary Ukrainian youth (on the example of Dnipropetrovsk region)», 2010 ; M. Shevchuk «Psychological mechanisms of transformation of value orientations of student youth», 2000 ; N. Schemigon «Formation of value orientation of future teachers in the process of professional training», 2008.

In modern pedagogical science, the problem of self-realization is interpreted through the value determination of a person. O. Muzyka [5], investigating the subjective-value determination of a creative person, approved that the basic notion that determines the existence of human understanding of the «desirable» and the «due», is «good». Good is «either what is best for every being, or what makes other things involved, that is, the idea of good» [8, p. 127].

For the first time, Aristotle operates with such concepts as «valued» and «valuable» – «valued» (virtue, soul, mind), «praised» (virtues whose actions are commendable), «possible» (vigor, beauty, wealth, power) [2]. The problem of values always arises in the era of devaluation of cultural tradition and discrediting ideological foundations of the society. Thus the crisis of the Athenian democracy for the first time forced Socrates to ask: «What is good?» that became the main issue of the general theory of values. In Socrate's philosophy, values have become a central category, and «good» is interpreted as the achieved value, significance. In ancient and medieval philosophy, the value (ethical, aesthetic and religious) characteristics were included in the very concept of the reality of true being. The tradition of idealistic rationalism goes from Plato to Hegel and is distinguished by inseparability of ontology and axiology, being and values. Axiology as a separate area of philosophical research arises when the notion of «being» is split into two elements: reality and value as an object of human desires and aspirations [10, p. 129]. The axiological aspect of knowledge of the world is inherent in the philosophical views of Plato, who believed that the world of things and the world of ideas are not identical: as ideas are ideals, they are more «valuable» comparing to things. Plato also made one of the first classifications of value (good) as a category, dividing it into «good», «beautiful», «true» [2]. Plato identified the existence of two spheres of being: physical (natural) and ideal (supernatural) reality, accessible only to reason. Those two worlds, as the thinker believed, are linked by «virtue». Consequently, the idea of the ancient philosophers about human needs, the essence of understanding and the desire to achieve «good» became the fundamental basis for further understanding of the problem of values [8, p. 128; 11].

The methodological basis of the value determination of personality self-realization of student youth, that ensures its effectiveness, is the axiology that studies the problems of values and finds out the qualities and properties of objects, phenomena, processes capable of meeting the needs, interests, demands and wishes of young people. One of the defining characteristics of values (also in ethical and aesthetical concepts), according to R.-G. Lotze, is the notion of «significance». Value is everything that is meaningful to a person, has personal or social meaning. Followers of R.-G. Lotze developed, enriched the concept of values, supplemented the basic categories of axiology – «virtue» and «value» – by the concepts of «evaluation», «choice», «price», «success», «desirable», «proper», «better», «worse» and others. There are different points of view on the nature of values – the ability of things to meet human needs, desires, representations that generate human hopes and expectations [14; 17].

Methodological substantiation of the corresponding key concept of «values» is found in modern dictionaries, where «value» is interpreted as a spiritual formation, which exists through moral and aesthetic categories, social ideals and serves as a criterion for assessing human actions; as a positive and negative understanding of things, events, spiritual works of a society or an individual [1; 2]; as a term indicative of the human, social and cultural significance of certain phenomena of the surrounding world [15, p.73] etc. Hence, value is described as the significance, that a person gives to certain things,

phenomena, and that forms the basis of human attitude towards them.

Important for our study of gifted student youth was the position that modern axiology uses the concept of the subject-object nature of values, the world of which (axiobeing) forms the man himself. Due to it man gives the environment the spirits of culture, emotionally and psychologically «transforms» it. However, values are not inherent, not immanent the very nature of being, they belong to the ideal spheres. An object acquires an axiological meaning («virtue», «better», «happiness») if the subject gives him an advantage [14].

Exploring the teaching process at the pedagogical university and organizing educational work with students, the ideas, that values are also divided according to their carriers into individual, group (collective, national), all-human, were used. All-human values include the values of good (virtue), freedom, truth, verity, creativity, beauty, utility, faith, hope, love. Individual values are life (vital values), happiness, well-being, health, family wealth. National values include such virtues as independence, good-neighborliness, peace, patriotism, dignity, social peace, etc. Every sphere of human life and activity has its own system of values [1].

An important issue for the work with gifted student youth was determining the forms of existence of values. Thus, the main form, in which the values function, are ideals – the idea of something non-existent, imaginary, perfect, desirable. The content of ideals reveals such peculiarities of values as hopes for a better future, expectations of the desired. They are the ideals of a fully developed individual or a society in which all reasonable human needs will be met [14; 18]. Value is not to be called uniquely true or false phenomenon, its characteristics are both objective significance and a subjective norm, on which the concept of truth also should not be extended. The criteria of value choice are relative, conditioned by the current moment or historical circumstances that transfer the problem of truth to the moral plane (V. Andrushchenko, I. Boichenko, I. Nadolny) [14].

The problem of functioning of values in the society is a fundamental one as to the problem of value determination of personal self-realization of the student youth. Thus, G. Rickert contrasts the world of culture as a sphere of domination of values to the world of nature, where laws prevail. R. Lotze and W. Windelbald consider values as norms that are the basis of cultural activity; as «spiritual phenomena, eternal transcendental entities» [13].

Concomitant with the conception of values in pedagogical science is the notion of value orientation, which is especially important for gifted student youth. In particular, L. Panchenko observes that value orientations lie at the basis of a person's outlook, his moral, political, aesthetic beliefs and tastes, defining and stimulating behavior. Formed value orientation is a kind of «axis» of consciousness that ensures the stability of a personality and manifests itself in the types of behavior, interests, needs, beliefs, on the basis of which the hierarchy of values of the individual is constructed [9, p. 4].

The notion of «value» is associated with the axiological category «evaluation» – measurement (appreciation or negation) of value. It stimulates practical attitude to the social, political, economic and cultural events of life. German philosopher Paul-Ferdinand Linke believed that value was the subject of interpretation. Explaining value as an interpretation, he argues that by means of interpretation a person prefers a particular thing or mode of action. The problem of interpreting values, choosing the «best» of them, transformation of values into self-beliefs is a complicated and intrinsically controversial intellectual-volitional procedure. Axiology emphasizes that such values as truth, good and beauty, to which man strives for their own sake, are manifested in values-benefits of culture (science, law, art, religion) that «normalize», «formalize» the content of values and return to the person as a subject of value generalizations as requirements of supposed need. One of the highest social values is freedom – special circumstances conditioned by spiritual reality; universal culture of the subjective series, which captures the possibility of activity and behavior in the absence of coercion [14].

There are two fundamental concepts that have practical significance for our study: the first relates the values to the human needs of living, those things that matter to the vital interest, requires the pursuit of aspirations; the second recognizes them as supervital formations, as a kind of «Absolute», the highest dimension of human spirituality [1]. According to N. Yukhymenko, values serve as a «world-formation factor. They are the source of norms and are included in the value-normative system of a person whose behavior depends on the system that he prefers, and on the place that one or another value in this hierarchical system occupies» [1]. Thus, any value includes necessity, interest, experience. Hence, values grow from the objective needs of a person and are consciously transformed into his interests and aspirations.

Traditional folk ideas, awareness of the values of Ukrainian people are important for value determination of personal self-realization of gifted student youth. This aspect of the research was realized through the analysis of historical and pedagogical issues of national axiological thought. Thus, O. Petinova [1] refers to the evolution of philosophical and pedagogical thought in Ukraine, since the problem of values was repeatedly addressed to it. Views about the highest value of man (after God) were still present in the philosophical sources of the period of Kyievan Rus, when the highest value of a man was considered to be his moral qualities, and the actions were evaluated not on the results, but on the moral motives that prompted those actions. In the writings of I. Vyshensky, M. Lopatynsky, M. Kozachynsky, F. Prokopovych, S. Yavorsky, M. Kotsubynsky, M. Dragomanov and many others, this problem was one of the leading motives. Today, as well, many researchers are appealing to a man as a value, for example, A. Kavalerov [2].

To substantiate the problem of values, the works of I. Kotlyarevsky were used. He considered the truth to be the most important axiological principle, associated with nationality, what is pronounced in the poem «Aeneid»

[14]. As the leading feature of the axiological worldview of I. Kotlyarevsky one can also determine the assertion of the value of a person regardless his social class, because human dignity is the highest moral and aesthetic value. This idea was transferred and extended by Ye. Hrebinka [1] in his artistic heritage. In the axiological beliefs of P. Gulak-Artemovsky significant place is given to the so-called «goodness», which is interpreted with the humanist-enlightenment notions of good and evil and «natural» equality of people. P. Kulish [1] also defined the human soul as one of the values, because in this «deep well» the essence of the person itself is hidden, it is the place, where communication with God takes place [15].

The pedagogical essence of the idea of value of man and nature and their organic unity is reflected in the works of Lesia. Ukrainka. Speaking about the dialectical unity of man and nature, it is emphasized that these relations are complex and contradictory. They carry with them not only positive but also negative: nature reveals its beauty to man, gives its wealth, but man still remains the part of it. T. Shevchenko attributes to the values also the categories of life, faith, hope, will, love, conscience and others like that. On the axiological basis, such categories as the world of the Ukrainian village and the world of the Cossacks are growing, and if the Cossacks embody the past of Ukraine, the world of the village is out of time [2].

The axiological direction of Ivan Franko's views [2] can be determined by such axiological concepts: hero, personality, people and nation. One of the highest values is faith. The basic ideas, reflecting the value worldview of I. Nechui-Levytskyi, are the will and the truth. For the oeuvre of P. Hrabovskyi the belief in universal values, and, above all, in beauty was characteristic. It was the motive, which P. Hrabovskyi considered the only worthy for the personality meaning of life, and therefore the value that occupies one of the most important places in the value hierarchy [6; 18].

A special place among the functions of value orientations of the person is the outlook function, which is revealed through the clarification of the essence of the worldview. Traditionally, the worldview is defined as a generalized system of human views on the world as a whole, the place of individual phenomena in the world and its own place in it, as an understanding and emotional assessment by the person of the meaning of his activities and the fate of mankind as a set of scientific, philosophical, political, legal, moral, religious, aesthetic beliefs and ideals of people [2].

Value orientations fulfill the function of adapting the personality to the natural and socio-cultural environment, to conditions of life, to professional activity. The process of adaptation is due to a system of objective and subjective factors. Objective factors of the process of adaptation include the state and effectiveness of economic, social, political and spiritual processes of social life; content and features of professional activity. Among the subjective factors of the adaptation process, the leading place belongs to value orientations [1].

Value orientations of the person carry out a regulatory and communicative function. A person, in the process of interaction with the outside world within a specific system of social relations, must compare his actions with the interests of the social community and other people, their aspirations and expectations. The latter are capable of acquiring for the individual and social communities the status of objective reality and independent value and fulfill the role of social control. Organizing function of value orientations of personality is the determination of social activity [1].

Among the functions of value orientations of the individual an integrative function is distinguished separately. On a personal level, value orientations integrate the cognitive, emotional, volitional fields of the individual's consciousness, create an important link of the individual's life with the needs and interests, on the one hand, and his goals – on the other. Value orientations of the person perform the cognitive function. Valuable orientations initiate cognitive activity, provide sustainability of cognitive activity, facilitate the process of acquiring and enriching knowledge [1].

In psychology relatively recently values began to be regarded as a phenomenon of individual consciousness. Under values we understand perceived semantics, which are the most significant components in the structure of consciousness, since they determine the main and relatively constant attitudes of man to the main spheres of life. Thus, values are individual, peculiar semantic formations of consciousness that reflect the vital significance for a person of external (objective world, social environment) and internal phenomena (emotions, abilities, world outlook, etc.) [1].

The pedagogical aspect of the problem in the study of the value determination of personal self-realization is associated by the researches with the contemporary demands, when orientation of the pedagogical process on the universal human values that are reflected in education and upbringing the younger generation, as well as the ideological, moral and professional position of the teachers themselves, is increasing. In this regard, the problem of implementation of the concept of the value-based approach in pedagogical process – education, upbringing and self-development of a person – is becoming an actual one.

Pedagogical axiology greatly affects the character of subject-object cooperation. The focus is made not only on knowledge and skills, but also on a range of vital values of student youth. The educational environment determines the ability to navigate in the surrounding world, in particular, to perceive its value heterogeneity. The degree of development of such skills in the personality is one of the most important indicators of the level of his education. Pedagogical studies are focused on solving urgent tasks of an educational institution regarding the definition, substantiation and implementation of a number of values necessary for the personal self-realization of future teachers. The set of stable values, value orientations contribute to the formation of value consciousness, ensuring stability of the individual, the continuity of a certain type of behavior and activities, expressed in the direction of needs and interests [6].

Analysis of pedagogical literature and practice of education in higher educational establishments shows that the process of self-realization of students is largely determined by the focus of university practice on the full development of personality as the most important task of higher education. The determining value for higher school appears to be the emerging person already existing, unfolding his life aspirations and plans in space and time [2]. Training future teachers involves creating for the students' conditions for designing their subjectively significant image of «I» in culture and future profession, contributes to the formation of the student, his personal potential [2].

The problem of value-semantic development of the personality of the future teacher within the educational process of the university is considered in the dissertation study of Y. Hryshko «Formation of the value of self-realization of future teachers in the process of professional training». Thus, the value-semantic sphere of personality is a complex integral formation, the components of which are value orientations and the system of personal contents. The researcher interprets the value orientations of the future teacher as a system of integrated semantic settings that determine the relation to the essential aspects of teaching activity, its subjects and the level of professional activity of the teacher, ensuring its self-realization [2].

For our study it was important to determine the peculiarities of value determination of personal realization particularly of the gifted student youth. In this regard, scholars argue that the formation, development and effective self-realization of gifted future teachers is conditioned by their concentration around the motivational core of the individual. Also, scholars draw attention to the fact that the structure of value orientations of gifted student youth has significant differences from the structure of value orientations of ungifted students. Valuable orientations of the first reflect the hierarchy of values of culture, in which spiritual and professional values dominate. Value orientations of other students demonstrate changes in the structure of value orientations of youth associated with social changes. The most prestigious they regard the material values, the values of individualism, hedonism. In some studies, it is said that highly gifted persons in present-day conditions become the carriers of national culture [2].

Self-awareness, internal activity and the system of value orientations of gifted students are subjective determinants of personal self-improvement of students at a higher educational institution. They contribute to the future teacher's need for constant self-improvement. The problem of value determination of personal self-improvement of future teachers has found its coverage in modern studies [1].

Analysis of the scientific sources allowed formulating our own definition for the basic concept of the research. Value determination of personal self-realization of student youth is defined as the process of purposeful, creative growth of the future specialist, which is mediated by the need for personal self-improvement on the basis of personal and professional values and due to the formation of the person's motivational sphere.

It is proved that pedagogical giftedness means a qualitatively peculiar combination of pedagogical abilities of personality, his intellect, creativity of thinking and activity, and conscious deliberate orientation towards the functions of a pedagogical worker who can achieve significant success in professional activity (O. Antonova, O. Akimova, O. Kutsevol). It is found that understanding the essence of giftedness and its connection with special abilities is revealed through the unity of general and special properties and their interpenetration. Herewith, the overall talent is not only a prerequisite, but the result of all-round development of the individual. Relationships between general talent and special abilities differ for different abilities. The higher is the level of special ability, the closer is its relationship with the overall talent. As a result, one person demonstrates general giftedness, which manifests itself in different directions, in the absence of a specialized talent; the other shows capabilities in any one direction, and it is considered to be a talent.

On the basis of theoretical principles and teaching experience it was found: self-realization can be understood as identification and development by the individual his personal abilities in all areas of activity, maximum revelation of personal creativity in socio-cultural context, maximum use of his capabilities, talents, personal disclosure. In pedagogical context – it is the most complete identification and development of individual and professional opportunities. It is proved that the problem of self-realization in pedagogical science is associated with the formation of attitudes and values of the individual under the influence of education. The dominant in implementation of self-realization are the processes of construction of personal content of value, moral self-education and self-cognition.

The basis of the value determination of the personal self-fulfillment of gifted students – future teachers – constitute the conceptual provisions about the essence of giftedness, which is defined as a set of all human qualities that determine the performance of its activities. Considering giftedness from the standpoint of development, we define it as interaction in a certain fixed moment of internal characteristics and external factors that determine the emergence of self-realization potential.

Conclusions. It is determined that the fundamental achievements of the theory and practice of humanistic pedagogy became the prerequisites for accomplishing the value determination of personal self-realization of gifted student youth. The basis for the value determination of personal self-fulfillment of gifted students is the concepts of axiology, humanism, democracy, personal centering and individual freedom. In modern pedagogical science, giftedness is understood as the determinant of self-realization, its prerequisite, which can both promote and counteract this process depending on the internal position of the individual. It is proved that in today's conditions of European integration of education the following approaches may be effective for the development of areas

of work for the development of giftedness of students: acceleration (rate of development), deepening (in a concrete sphere), enrichment (of the content of studying), problematization (of the content of studying), inclusion (in the subject activity). Self-realization is always connected with the activity in which the needs of growth, development, self-improvement and personal abilities and professional capabilities are met. It is proved that the problem of self-realization in pedagogical science is associated with the formation of attitudes and values of the individual under the influence of education. The dominant processes in implementation of self-realization in the investigated branch are the processes of constructing personal value contents, moral self-education, self-cognition. It is concluded that the value determination of personal self-realization is characteristic of gifted people who regulate their own development, guided by mostly stable internal values criteria. Investigation of the determinants of gifted personality formation should be aimed, first of all, at identifying the value characteristics associated with the basic features of development of giftedness, which are common to gifted youth, as well as those that distinguish gifted students from the rest.

Value determination of personal self-realization of student youth we define as the process of purposeful, creative growth of the future specialist, which is mediated by the need for personal self-improvement on the basis of personal and professional values and due to formation of the person's motivational sphere.

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GENERAL AND SUBJECT DIDACTICS
ЗАГАЛЬНА ТА ПРЕДМЕТНА ДИДАКТИКА

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Psychological and didactic fundamentals of modern educational technologies of visualization

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Abstract

The relevance of the studied issues is that the introduction of modern technologies of visualization of educational information in the educational environment of higher school is a tool for ensuring the quality of professional training. Accordingly, there is a need to determine the psychological and didactic fundamentals of this process in order to use them as efficiently as possible.
The purpose of the given study is to determine the psychological and didactic fundamentals of modern educational technologies of visualization and to formulate practical recommendations for their implementation in the educational process of higher school.
Based on the outlined features of the cognitive activity of modern generation (the ability to quickly switch between different semantic fragments, high speed of information processing, preference for perceiving information in a figurative form, inability to perceive linear information, etc.), the most significant cognitive needs of modern students are characterized. Prospective technologies for visualizing educational information (mind maps, scribing, video scribing, etc.) and methodical features of their use in the process of professional training are characterized. The tasks of modern visualization tools are defined (tool for improving the educational process, concentrated presentation of educational material, provision of the correspondence of educational material corresponds to the psychophysiological characteristics of students and rational organization of educational and cognitive activities of students). The author's experience in the use of modern visualization technologies, which are based on the application of modern software products, in the process of professional training of future specialists has been presented.

Keywords: visualization; psychological and didactic fundamentals of the educational process; modern visualization technologies; professional training; educational environment

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Психолого-дидактичні основи сучасних освітніх технології візуалізації

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Автори заявляють про відсутність конфлікту інтересів.

Анотація

Актуальність досліджуваної проблематики полягає у тому, що впровадження сучасних технологій візуалізації навчальної інформації в освітнє середовище вищої школи є засобом забезпечення якості професійної підготовки. Відповідно існує необхідність визначення психолого-дидактичних основ цього процесу з метою максимально ефективного їх використання. Метою роботи є визначення психолого-дидактичних основ сучасних освітніх технологій візуалізації та формулювання практичних рекомендації щодо їх впровадження в освітній процес вищої школи. На підставі окреслених особливостей когнітивної діяльності сучасного покоління (здатність швидко перемикатися між розрізненими смисловими фрагментами, висока швидкість обробки інформації, перевага до сприйняття інформації в образному вигляді, нездатність до сприйняття лінійної інформації тощо), схарактеризовані найбільш значимі пізнавальні потреби сучасного студентства. Схарактеризовані перспективні технології візуалізації навчальної інформації (ментальні карти, скрайбінг, відеоскрайбінг тощо) та методичні особливості їх використання в процесі професійної підготовки. Визначені завдання сучасних засобів візуалізації (інструмент вдосконалення навчального процесу, концентроване подання навчального матеріалу, забезпечення відповідності подання навчального матеріалу психофізіологічним особливостям студентів та раціональна організація навчально-пізнавальної діяльності студентів). Представлено авторський досвід використання сучасних технологій візуалізації, які засновані на використанні сучасних програмних продуктів, в процесі професійної підготовки майбутніх фахівців.

Ключові слова: візуалізація, психолого-дидактичні основи освітнього процесу, сучасні технології візуалізації, професійна підготовка; освітнє середовище

Problem setting. In the system of higher education, the need for drastic changes has come. The transition from a traditional to an innovative model of higher education is not only desirable, but also forced. The main task of the teacher at the moment is the application of methods and technologies that allow students to develop critical thinking, creativity, and successfully adapt to the requirements of the time and changes in the legislation of a certain field. In addition, taking into account the rapid development of information technologies, the future graduate must not only form a sufficient level of knowledge and skills, but also the ability for continuous professional improvement throughout life. In the modern environment of higher school, a number of factors can be identified that prevent the updating of the educational process: insufficient implementation of pedagogical technologies in the teaching process, low level of educational and cognitive activity of students, associated with the lack of motivation to study, which leads to problems concerning mastering and uptalking the information.

It is known from the theory of psychology that we perceive 90% of information owing to sight. In addition, the perception of a significant amount of information in the form of a text or a monologue is unproductive, because after a short period of time attention is scattered and the meaning of what was heard is lost. It is most effective to present educational material evenly distributing it by channels of perception (visual, auditory and kinesthetic). Considering this, we think that one of the effective ways

to ensure the cognitive activity of future specialists and improve the quality of higher education is the introduction of modern information visualization technologies into the educational process. However, in order to provide the efficiency of their usage, we consider it expedient to characterize the psychological and didactic fundamentals of modern educational visualization technologies.

Analysis of recent research and publications. Theoretical and methodical principles of educational information visualization were reflected in the works of A. Verbytskyi, A. Gritchenko, V. Davydov, M. Martyniuk, M. Shute and others. G. Gardner, N. Manko, K. Frumkin, based on the theory of cognition and psychological fundamentals of educational activity, emphasized the heuristic potential of visualization. In recent years, innovative technologies of visualization of educational information have also been under the special attention of scientists. Thus, N. Zhytenyova considered the peculiarities of visualization of educational information using cloud technology services [1]. According to the scientist, this approach has a number of advantages compared to other means of visualization: the ability to work without being tied to a place, using any computer with an Internet connection; insurance against work failures in case of machine breakdown; the ability to quickly create, adapt and replicate educational services during the educational process; the possibility of joint work on the same document; ensuring high scalability, reliability, security, resource allocation; the possibility of feedback; ease of administration [1, p. 81].

The problem of intensification of the educational process using visualization tools at the current stage of higher education development was studied by O. Filonenko and N. Baidak [4]. Scientists have established that with the help of methodically expedient use of visualization in the distance learning process, it is possible to solve a number of pedagogical tasks: ensure the intensification of learning; activate educational and cognitive activities; develop critical and visual thinking; form a visual representation of knowledge and educational actions; increase visual literacy and form visual culture, etc.

The issue of visualization of educational information is also of interest to foreign scientists. Thus, N. Michinov and J. Hutain [17] investigated ways of increasing students' motivation during a lecture by using visualization technologies and creating a personalized display of information. To confirm the proposed theory, the scientists conducted a pedagogical experiment and obtained positive results. Y. Zhang, K. Xu, Y. Pan, Z. Pi and J. Yang [20] analyzed the effects of visual aids on the learning outcomes of college students.

Characteristic features of visualization in the conditions of digitization of the educational space are reflected in the publication [11]. This study determined the potential impact of practical experience on students' knowledge, skills and values regarding new technologies, characterized the theoretical application of next-generation visualization technologies and their impact on the further professional activities of graduates. The study of the peculiarities of the perception of educational information by students and the development of appropriate ways to provide the efficiency of education are reflected in the publication [10]. The study deepens the understanding of the importance and influence of constructively oriented teaching on the educational process of students. The creation of effective online courses using modern visualization tools is discussed in the publication [19]. The results showed that developing online courses with the introduction of innovative visualization tools, as well as including strategic planning for pedagogical interaction points, can maximize the potential for student engagement and their subsequent effective learning.

Objective of the article is to determine the psychological and didactic fundamentals of modern educational technologies of visualization and to formulate practical recommendations for their implementation in the educational process of a higher school.

Taking into account the outlined goal, the following tasks of the research are defined:

1) conduct a theoretical analysis of the sources of the subject of the research;

2) characterize the psychological and didactic fundamentals of modern information visualization technologies;

3) on the basis of the conducted research, establish the conditions for the effective use of modern information visualization technologies in the process of training future specialists.

Presentation of the main material. Modern educational environment of ahigher school tends to replace the explanatory and illustrative pedagogy that prevailed before, to a constructively new direction in the theory of learning, which involves the active interaction of students and the educational environment. As a result of such changes, the educational environment should turn into a comfortable and developing one. Given that the cognitive activity of the future specialist is based on theories, concepts, ideas, laws that they must understand, master and learn to use in their professional activities, for the effective organization of this process, it is necessary to create conditions for active interaction between the educational environment and students, in particular using modern visual aids. It is worth noting that despite the generally recognized didactic potential of visualization technologies, their use in the educational process of a higher school is spontaneous in nature, limited both in terms of scope and didactic goals. However, visualization should be aimed not only at adding brightness and expressiveness to the presentation of educational material, but also at affecting the emotions of students, awakening their interest in learning, involving them in independent work, etc.

In scientific studies of the previous century, it was recognized that visualization helps to generalize and remember the material, and also contributes to its longer retention in memory. At that time, diagrams, posters, projectors, etc. were used in practice. At the current stage, visualization reaches a new level, taking into account the capabilities of modern computer technology. And if earlier

in the educational system visualization performed the auxiliary role in learning, now its use involves a significant revision of methodological approaches.

The expediency of using the visualization of educational information is dictated, first of all, by the need to present it in the form most appropriate to the new needs of the modern generation of students. Psychologists and culturologists, characterizing this generation, talk about a new culture of information perception, about "screen people", about a new type of thinking – the so-called "clip" thinking, which is formed as a reaction to the rapid growth of information flows, mainly in visual form, to a high fragmentation, great variety and complete heterogeneity of incoming information [12, c. 311]. Characteristic features of such thinking are the ability to quickly switch between separate semantic fragments, high speed of information processing, preference for the perception of information in a figurative form, but at the same time the inability to perceive linear, homogeneous information, including long texts from the manuals.

However, the analysis of own experience, which is partially reflected in the publications [13; 7; 15; 14] of teaching in higher education establishments, showed the lack of visual literacy (the ability to analyze, critically think and assimilate information created and presented using visual aids). The need to develop the ability to effectively use and analyze visual information is necessary for life in the modern information society, but like any other skill, it requires study and development.

Reformation of the education system promotes to master, use and optimize the innovative technologies. Creating an educational environment with a subject-oriented and educational-informative direction makes it possible to use innovative multimedia products (applications, e-books, Internet services, etc.). This direction of educational activity will become the basis for the development of a high-quality innovative product for teaching not only in the conditions of distance learning, improving the efficiency of memorization, improving the quality of students' knowledge, as well as the objectivity of the assessment.

Every day we create in our mind's cognitive models, mental maps, schemes of the environment in which we exist. These actions allow us to perceive certain events and plan our own steps, determine a strategy of behavior aimed at achieving the set goal [9, c. 312]. Our conscious thinking and decision-making process are based on such models. Any external reality or event has certain reflection within the model created in the inner world of the individual. Intellectual (mental) maps have a similar principle of action in the educational environment.

Intellectual maps (mind maps) are structural and logical graphic representation of a problematic issue with an extensive system of thoughts and ideas necessary to solve a specific situation.

The methodology was developed by the English psychologist and intelligence consultant T. Buzen [6].

Mind mapping is the process of creating a mental map, in the center of which is a basic concept, from which tasks, ideas, shortcomings, conditions for implementation, etc. branch out. Mind mapping is an effective way of processing information. This is evidenced by the popularity of mind maps around the world - about 250 million users of the most popular services for their creation (Xmind.net, Miro.com, Bubbl.us, Mindmeister.com, Mindomo.com, Coggle.it). The peculiarity of mental maps is that they can be used in any field of activity.

Mind maps are a tool for structuring and systematizing information in graphic expression. Mind mapping is the process of creating a branching scheme of thoughts that resemble the branches of a tree. The more thoughts, the more branches on the tree. It can be used effectively both in lectures and in seminar classes. To improve the effectiveness of training, it is advisable to use it during group work in combination with the "brainstorming" method. Intellectual maps have a number of characteristic features that positively affect the process of assimilating new knowledge:

1. Visibility. The projection of mind mapping technology on the canvas allows you to see the whole problem in a complex way and find several options for solving the problem.

2. Attractive appearance. Mental maps visually reflect the essence of a problematic issue and, like any graphic image, are better perceived for processing.

The use of colorful images, colors and associations affect visual perception, which, in combination with auditory, facilitates memorization. There are many applications and services for creating mind maps, most of which are free. However, you can create a mind map by hand on a piece of paper or a presentation board. The most popular applications for creating mind maps are Freemind, Xmind, MindMeister and iMindMap. These are free or partially paid programs that have a certain number of templates, layouts and drawings. In general, such applications "excellently" cope with the set tasks. The service for creating mental maps from Google – coggle.it – needs special attention. On the basis of this platform, it is convenient to create mind maps of any level of complexity, there is the possibility of group work, which is necessary during an interactive lecture, practical or seminar class, as well as in the conditions of distance learning. The created cards are automatically saved in the user's profile. To invite participants, the service sends a link with the invitation, it is possible to save the map in image or pdf format. An example of a mental map is shown in Fig. 1. Features of the use of these technologies are given in publications [2; 3].

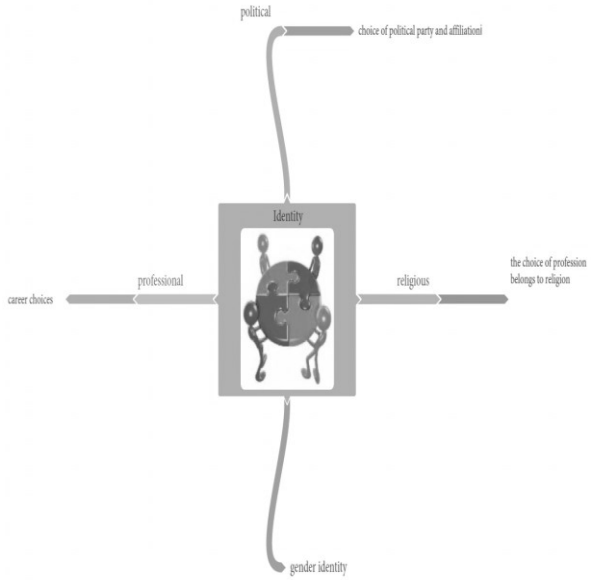


Fig. 1. An example of a mental map

In order to understand how to combine different elements of the surrounding reality into coherent mental constructs, it is necessary to turn to psychology, which claims that the system of mental images reflects not only a person's perception of the external world, but also his attitude towards it. S. Rubinstein [18], connecting the image with the thinking process, defines it as an imaginary picture of what is currently inaccessible to direct perception. As one goes about one's ordinary life, he determines each situation by imagining which of the schemas existing in his memory it fits into. We can safely say that a person creates a second, more specific, type of scheme of each individual event and its correspondence to a more general model that exists in our minds [16, c. 273].

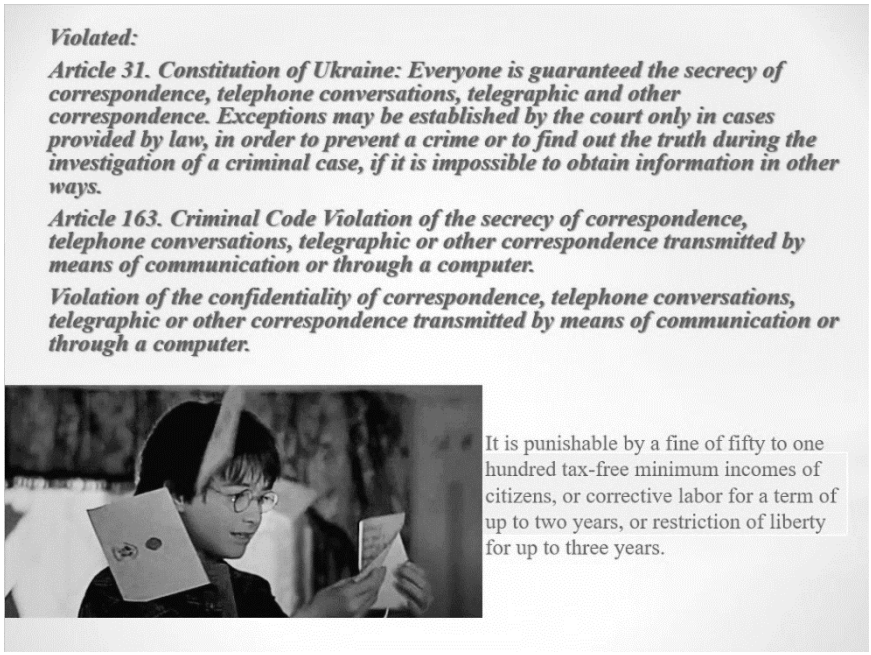
Therefore, for the effective use of mental maps during training, we should act according to the same principle: the information for building mental maps should be organized not linearly, but associatively, with the establishment of those ties that our imagination tells us. The second important fact is that our brain remembers key words and images. Such a visual scheme with established relationships between keywords allows not only to remember them, but also to reproduce them if necessary. Placing information from the center to the periphery is psychologically justified, the most general and significant information is placed in the center and immediately attracts attention, and therefore is easier to remember. From the center, you can move in rays or rings diverging in any direction. The organization of such a scheme, as a rule, reflects the peculiarities of the organization of ideas and concepts in the brain. And the third important element when creating mental maps is emotions. The reproduction of any information in a person's mind is not only in the format of reproduction of an image or text, in parallel we reproduce the emotions that we felt at the same time. Therefore, emotions are a kind of trigger that allows you to make such a learning tool as effective as possible [1, c. 169].

When solving professional tasks, such schemes help to see the whole picture and connections between different links, to imagine different aspects of the problem, their relative importance, to quickly assess the situation and make the most effective decision. It is difficult to overestimate the potential of mental maps, they can be used when planning a written work or any activity – a map helps to collect all relevant information in one place, organize this information depending on importance into a map convenient for this specific activity, which will later be easily applied to practice Similarly, you can plan a performance and presentation. In this case, the advantages are the convenience of remembering the scheme, reproducing it in front of the inner gaze and relying on it during an oral presentation or answering an exam.

Another promising visual technology is scribing – it is an innovative teaching technology that consists in creating visual connections at the same time as explaining theoretical material. Thus, it is possible to illustrate educational material in real time, which makes it possible to focus students' attention on studying a specific topic. As mentioned above, for better memorization, you need to engage different senses at the same time. Therefore, for better learning efficiency, the use of scribing is a necessary component, because it includes listening and visualization.

Video scribing should be considered separately. Video scribing is a type of scribing that reproduces information in dynamics, which is based on illustrations, drawings, diagrams that form a video sequence. The advantages of video scribing are obvious – the video clip can be used many times, this type of scribing arouses great interest of students, and it is also an informative way of presenting information. To create scribing presentations, it is sufficient to have a felt-tip pen, paper and stickers. But nowadays, computer scribing is gaining more and more popularity – creating presentations based on computer programs or applications. The most popular program for working with real-time presentations is Microsoft PowerPoint. The application is easy to use, contains standard layouts and designs, suitable for creating a simple scribing presentation. Google presentations have similar characteristics – a service for creating presentations that are automatically saved on the Google Drive of your account. It is convenient to make adjustments to existing presentations and broadcast them from any gadget. There are a number of partially free services and programs for creating video scribing. The most popular of them are GoAnimate, PowToon, Wideo, Moovly and others. These applications have a collection of standard scenes and pictures, you can add text and audio files. The VideoScribe application deserves special attention – it is

easy to use, equipped with the necessary tools and ready-made templates. An example of scribing is shown in Fig. 2.



Scribing technologies can be used not only by the teacher during lectures, but also by students as an individual work on a problematic issue or during research work in groups. This type of work forms general and professional competences of students and prepares them for professional activities.

In addition, for the effective use of modern visualization technologies, there are a number of useful and easy-to-use tools, for example: PicCollage application (for creating collages on Windows, Android and iOs platforms), Powtoon (software for creating animated videos and presentations), Explain Everything (a platform for creation of videos and interactive presentations), Canva (an application for creating presentations, posters, collages, website design), etc.

Taking into account the above mentioned, we believe that the methodologically appropriate use of modern visualization tools performs the following tasks:

- is an effective tool for improving the educational process, in particular due to the compact presentation of educational material, which creates an opportunity to increase the information saturation of education;
- is a concentrated presentation of educational material while preserving its semantic completeness;
- provides compliance of presentation of educational material with psychophysiological characteristics of students;
- is rational organization of educational and cognitive activity of students due to its algorithmizing.

The use of modern visual technologies requires certain preparatory activities of the teacher, which can be conventionally divided into two stages: modeling and designing. In the modeling process, the general idea (model) of the future visualization of a certain object or theory is developed. At the same time, it is important that modeling is aimed not just at the creation of certain schemes, but at the imagination and further construction of a holistic pedagogical process, the key element of which is the introduction of visualization into the educational process. At the design stage, the development and detailing of the general idea of creating a new pedagogical object takes place, the main ways of achieving the results of the educational process are outlined [8]. For example, a particular image can form the basis of an entire session, creating an occasion for intense discussion, thoughtful explanation, and careful exploration.

From the standpoint of the initiated research, modern visualization technologies are considered as

- an effective way to activate the educational and cognitive activity of students and a means for mastering educational information;
- a methodological tool that provides students with a set of tools for solving future professional tasks;
- a tool that stimulates the development of creativity, critical thinking, increases work productivity, inspires creative solutions;

- a process that allows you to identify existing problems, establish relationships between them and see the picture as a whole.

Conclusions. Thus, modern educational technologies of visualization of educational information are an effective tool in the process of training specialists in higher education, as they allow not only to provide the effective mastering of a certain system of knowledge and skills, but also to develop creative skills, generate new ideas and concepts, etc. In the article, an attempt was made to summarize the acquired experience regarding the use of visualization technology in the process of professional training of future specialists. As a methodological basis for the use of innovative visualization technologies, a system of principles isolated from the key principles and principles of pedagogy and psychology, grouped on the basis of the unity of personal and activity approaches, is used. Modern visualization technologies make it possible to build close relationships between educational information to be mastered and the consciousness of students: any external information can be recorded in the form of images, models, descriptions. In this case, it is not just a copy placed in the mind of the subject, but a complete system, which is formed by building a number of additional elements and connections between them, determined by knowledge, experience, features of the psyche and mental processes and personality properties.

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PROBLEMS OF TEACHER TRAINING
ПРОБЛЕМИ ПІДГОТОВКИ ВЧИТЕЛЯ

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The modern teacher of the institution of higher education: challenges and innovations

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Abstract

In the 21st century, higher education is undergoing significant changes, and teachers are becoming key figures in this process. For a modern teacher, it is not enough to be able to adapt to the challenges of globalisation, technological progress, the development of intercultural communication and the development of critical thinking among higher education students, but it is necessary to anticipate all challenges in advance and become the initiator of changes in the educational environment. This article examines the role of the teacher in the 21st century and the need to implement innovative approaches to ensure quality education. This article is devoted to the analysis of the challenges faced by teachers in higher education institutions, as well as to the study of innovative approaches that can be used to effectively address these challenges. Through the study of concepts such as technological progress, globalisation, changes in approaches to learning, inclusiveness, competition, scientific activity, mental health of higher education students and administrative burdens, because all of these directions affect the professional activity of teachers in the modern educational environment. Undoubtedly, the teacher of a higher education institution is influenced by technological progress, namely, the integration of modern technologies into the educational process, associated with changes in approaches to learning and assessment. In addition, the teacher has to focus on the competitive environment in higher education, strategies for filling groups and retaining students. At the same time, not forgetting about scientific activity and combining it with the educational process. In the article, the figure of a modern teacher of higher education in the 21st century is considered through the prism of changes in pedagogical approaches, challenges that contribute to innovations and technologies, which, in turn, help to improve the educational process in a modern institution of higher education.

Keywords: modern teacher, higher education, challenges, innovations, technologies, globalisation, training, competition, scientific activity, mental health of students, administrative workload.

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Сучасний викладач закладу вищої освіти: виклики та інновації

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Анотація

У XXI столітті вища освіта зазнає значних змін, а викладачі стають ключовими фігурами у цьому процесі. Для сучасного викладача замало вміти підлаштовуватися до викликів глобалізації, технологічного прогресу, розвитку міжкультурного спілкування та розвитку критичного мислення у здобувачів вищої освіти, а потрібно передбачати наперед всі виклики та ставати ініціатором змін в освітньому середовищі. Ця стаття розглядає роль викладача XXI століття та необхідність впровадження інноваційних підходів для забезпечення провадження якісної освіти. Ця стаття присвячена аналізу викликів, з якими стикаються викладачі закладів вищої освіти, а також дослідженню інноваційних підходів, які можуть бути використані для ефективного вирішення цих викликів. Через дослідження понять, таких як технологічний прогрес, глобалізація, зміни у підходах до навчання, інклюзивність, конкуренція, наукова діяльність, психічне здоров'я здобувачів вищої освіти та адміністративні навантаження, адже всі перераховані напрями впливають на професійну діяльність викладачів у сучасному освітньому середовищі. Безумовно, що на викладача закладу вищої освіти справляє вплив технологічного прогресу, а саме, інтеграція сучасних технологій у освітній процес, пов'язані зі зміною підходів до навчання та оцінювання. Окрім того, викладачу доводиться зосереджуватися на конкурентному середовищі у вищій освіті, стратегіях наповнення груп та утриманні здобувачів освіти. При цьому, не забуваючи про наукову діяльність та поєднувати її з освітнім процесом. У статті постать сучасного викладача вищої освіти у XXI столітті розглядається через призму змін в педагогічних підходах, викликах, що сприяють інноваціям та технологіям, а ті, в свою чергу, допомагають покращити освітній процес у сучасному закладі вищої освіти.

Ключові слова: сучасний викладач, вища освіта, виклики, інновації, технології, глобалізація, навчання, конкуренція, наукова діяльність, психічне здоров'я студентів, адміністративне навантаження

Statement of the problem. Institutions of higher education are important institutions for ensuring the development of society and the transfer of knowledge to the new generation. The role of a teacher in a higher education institution has acquired special importance in modern conditions, where scientific progress and technological shifts occur at an unexpected speed. The modern teacher is faced with numerous challenges that require new approaches, strategies and innovations.

Traditionally, the teacher's role was limited to the transfer of information and knowledge to students, but the modern context requires a wider range of competencies. Teachers need to become facilitators of knowledge that contribute to stimulating higher education students to independent thinking, critical analysis and problem solving. An important part of the teacher's role is the education of civic values, the understanding of diversity and promotion of the development of interpersonal and intercultural competences.

Analysis of recent research and publications showed that the study of the problem of measuring the levels of pedagogical competence of teachers of higher education institutions should be based on the domestic traditions of studying the competence of a specialist within the framework of pedagogical, psychological, economic, sociological and other sciences, in particular, on the theoretical and methodological works of Yu. Babanskyi, I. Bekha, B. Gershunsky, S. Honcharenko, I. Zyazyun, V. Kremen, etc.; works on didactics of professional education by R. Gurevich, O. Dubaseniuk, N. Nychkalo, V. Strelnikova, etc.; works on pedagogical psychology by H. Ball, H. Kostyuk, V. Semichenko, B. Fedoryshyn and others [7, p. 29]. Many scientists, both domestic and foreign, have dealt with the problems of forming the image of a modern teacher and higher education institution, but there are a number of unresolved issues that require urgent consideration. We would like to note the domestic scientists who deal with these issues, namely: V. Andrushchenko, I. Anosov, N. Boretska, O. Apilat, V. Voronkova, O. Kyvlyuk, R. Oleksenko, P. Saik, O. Sytnyk, O. Smilyanets, and others.

The purpose of the article. Research on the dependence of the professional training of future specialists in various fields on the personality of the teacher and his professionalism. After all, the mission of a modern teacher is not limited only to the high-quality organisation of the educational process, the teacher is called to perform a reference function – his professional image (impeccable appearance, personal and professional culture, innovative creative thinking, responsible attitude to his professional duties, etc.) should serve as a model of a positive image for future professionals.

Summary of the main material. In the conditions of reform, the education system of Ukraine is aimed at the standards of the European educational space, which significantly expands the functions and capabilities of the teaching staff of higher education institutions (HEIs). The above causes changes in the role positions of the modern teacher of higher education institutions - the transition from a single mentor and source of knowledge to the role of a coach, facilitator, tutor, moderator in the individual educational trajectory of a student of higher education. It is connected with the change of the teacher's functions, which are transformed in order to provide support aimed at creating conditions for the rational self-development of the individual.

This phenomenon is an important category that reflects the essence of the innovative activity of a modern higher education teacher and allows him to move from adaptation to changing the conditions of the educational environment on the basis of the key tasks of modern higher education and taking into account the needs of its students. Therefore, the transformation of the role of the teacher of higher education changes and complements the substantive basis of his professional competence. This requires the understanding and use of new concepts, which determines the relevance of our research [6, p. 157].

A teacher at a higher education institution must possess certain qualities and competencies in order to effectively fulfil his professional role and influence higher education students. The main competencies include:

Expertise in his/her field of expertise: A teacher must have deep knowledge of the educational component he/she is teaching and be aware of the latest trends and developments in his/her field.

The ability to communicate effectively: a teacher must understand and explain complex terms and concepts to students in an accessible manner, stimulate discussions and facilitate an active exchange of knowledge.

The ability to encourage learning: a teacher must be able to encourage learners to cognitive activity, promote formative interest and motivate independent study of the material.

The ability to quickly adapt: changes in society and education require the teacher to be ready to adapt to new technologies, methods and approaches to learning.

Supporting the development of students in higher education: a teacher should show interest in the academic and personal needs of students, promote their development and help them overcome difficulties.

Critical thinking: a modern teacher must own and promote the development of critical thinking in students, teach them to analyse and evaluate information from various sources.

Innovations in education: a teacher must be open to the introduction of new approaches and teaching methods, use interactive methods and modern technologies.

An example for students of higher education: a teacher should be an example of professional and ethical behaviour in relationships with students.

Self-improvement: a teacher must constantly improve his professional level.

Stress resistance and tolerance: a teacher must be ready to resolve conflict situations, understand the diversity of the student body and show tolerance for different views [3].

That is, a modern teacher must combine professional competence with social skills in order to become an influential figure in the educational process.

Teachers often complain that students today are not the same as before. And the base at the school is weaker, and they are not interested in anything except the Internet. But this is far from the case. There are a lot of acquirers who read not only e-books, and get knowledge not only from social networks. Yes, they are not what they used to be, but they are neither worse nor better, they are just different. And you just have to accept it. At the same time, teachers must firmly remember that today's students of higher education "see through" their mentors. Therefore, today a teacher who teaches others simply needs to constantly learn and improve himself. It is necessary to establish oneself so that the student of higher education remembers the teacher as a highly erudite, highly professional lecturer or practitioner, and does not associate his memories with some not very correct or generally unacceptable act of the teacher. If the student has not developed a model of the correct authority of the teacher, and the teacher begins to communicate with the student as an equal, transferring his responsibility to him, then such freedom suppresses the personality of the student of education and turns him into an amorphous being with cynical morals. All over the world we are witnessing a catastrophic deterioration of what is called discipline in pedagogy. The desire to avoid authoritarianism turned into a complete loss of authority for teachers and adults. Educators and psychologists claim that in our country there are more and more nervous young people who are completely unmanageable [1].

Relations between teachers and students in the process of their education acquire great importance and there are absolutely no small things that should not be paid attention to: under no circumstances should a teacher's bad mood be reflected in his behaviour with students; greet students correctly; from the first classes, establish your rules of the game regarding lateness to class (for a start, don't be late yourself) and the use of mobile phones, smartphones and other wonders of modern communication technology; control the attendance of

students in classes; address students to you; the teacher must always keep his word. Sometimes a teacher has the problem of knowing what to do when he is asked a question to which he does not know the answer. In no case should you pretend that this is an elementary question and refer the student to a book or other source. The teacher should admit that he does not fully understand this issue, and next time he must provide a detailed explanation. Learning is a two-way process. The teacher is simply obliged to "keep himself in shape". This is especially true of modern information technologies, when students are better versed in certain issues than some teachers, who have decided that their numerous diplomas and certificates cannot in any way question their professional level.

High-quality professional training of future specialists in various fields depends on the personality of the teacher and his professionalism. However, the mission of a modern teacher is not limited only to the high-quality organisation of the educational process, the teacher is also called to perform a reference function – his professional image (impeccable appearance, personal and professional culture, innovative creative thinking, responsible attitude to his professional duties, etc.) should serve as a model of a positive image for future specialists [1, p. 28].

Pedagogy as an art deals not only with formative forces, but also with the vital energy of a person who is undergoing formation. Pedagogy, like art, requires from those who are engaged in it professionally, an understanding of the laws of human development, because the correct development of each quality is the basis of the student's abilities.

Most of the experimental learning technologies not only do not solve the existing problems of education, but also deepen them even more. And this is because the main value of these technologies is what can be measured. The analysis of innovative learning technologies is only the first step towards creating the foundations for a psychological examination of pedagogical innovations. The primary task is to awaken in many "innovators" a sense of responsibility, the desire to do no harm, first of all, by starting experiments in the most mysterious field of our world, where the future of humanity is being created – in the field of higher education, personal and professional development of young people.

A modern teacher must actively use modern technologies in the educational process. Interactive whiteboards, video lessons, virtual labs and other innovative teaching methods help create engaging learning and student engagement in an electronic environment. In a world where information changes rapidly, it is important to teach students to think critically, analyse and evaluate the data they receive. Teachers should create educational scenarios that promote the development of critical thinking and the ability to draw conclusions from various sources of information.

In today's world, we deal with a variety of cultures, which are quite often found in higher education institutions. Teachers must be interculturally competent, understand cultural differences and be able to create a favourable educational atmosphere for all students of higher education without exception.

A modern teacher should combine traditional classroom learning with the use of electronic resources and interactive technologies. This approach makes it possible to optimise the educational process and ensure a student-centred approach for each student in higher education.

The education system needs the transformation of educational technologies that are able to ensure rapid adaptation, coordination and strategic orientation for the integration of the domestic education system into the international educational space. Educational technologies are designed not only to accumulate educational content, but to serve as a vector for the transformation of the content, methods and forms of education in the conditions of the modernization of electronic learning and the accumulation of human capital [5, p. 38].

The development of science and technology is fast; therefore, the professional competence of the teacher is crucial, and the teacher himself must be a reliable source of relevant knowledge and information for students, able to quickly update his knowledge and apply it in the educational process, which will undoubtedly contribute to the quality of the knowledge of students of higher education. The constant participation of the teacher in scientific conferences, the publication of articles, interaction with colleagues from other universities in Ukraine and around the world, and participation in project activities contribute to raising the professional level of both the teacher himself and the introduction of the latest ideas into the educational process.

A teacher is a person with a system of values that he is guided by in his social and professional interactions. The teacher's value system determines the nature and direction of interaction in the conditions of the educational process and is expressed in the ability to navigate freely in complex social and professional situations, to choose, and to carry out innovative processes [2, p. 150].

Conclusions. We are convinced that the realisation of the correct strategic course of the country, not populism, can be influenced only by people who are adequate to this task – cultural, moral, educated, socially active and caring. Thus, we return again to the main tasks of the education system. It is impossible to know your life abstractly or theoretically. To know life means to know oneself, this is the alpha and omega of education. After all, education is not just the accumulation of various kinds of knowledge or the collection and systematization of factors. Education is the knowledge of life as a holistic process. And the whole cannot be known through its parts, despite the fact that all rulers, religious figures and politicians prove the opposite.

A modern teacher at a higher education institution should become an active agent of changes and innovations in the educational environment. The changing role of the teacher, the use of technology, active learning, the development of interdisciplinary courses and self-improvement are just a few key aspects that must

cope with the challenges of modern higher education and ensure the quality training of future generations.

The prospects for further research include the possibility of studying the role of a modern teacher in a higher education institution in the context of digitalization and gamification of the educational process.

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Self-education as a basis for professional training of a teacher of a higher education institution

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Abstract

Self-education is an integral part of the professional training of a future specialist, and important criteria for a good teacher are a high level of knowledge, a broad outlook, rich life experience in solving pedagogical problems, and the skills that allow them to present complex material in an accessible way. The article reveals the essence of the concepts of «self-education» and «professional self-education», shows the versatility of the teacher's activity, and considers the modern requirements for professional training of teachers. The current situation of professional training of a specialist in a higher education institution can be characterized as a restructuring of consciousness and personal self-knowledge, the formation of a focus on successful professional activity, the search for new ways of self-realization and self-affirmation. In such conditions, the problem of teacher self-education as the basis of professional training becomes relevant, since it allows to form the traits and qualities that determine the implementation of successful professional activity, ensures the processes of socialization and professional development. The article describes the methods of self-education of a teacher, since a positive self-assessment, the ability to see and appreciate their advantages generally create the prospect of further professional and personal growth. It is noted that personal and professional growth directly depends on the processes of self-education and self-improvement, which allows the future teacher to be most effectively realized in their activities, ensuring their development and self-development, and promoting a creative approach to work. It is proved that the process of self-education in the process of professional training of a teacher of a higher education institution is extremely individual. Self-education begins with a person's self-awareness of themselves as individuals and their place in social activities, with an understanding of the norms and requirements of society, their own needs and capabilities, and a correct assessment of their actions.

Keywords: self-education, professional self-education of a teacher, professional training, methods of self-education of a teacher, higher education institution

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Самовиховання як основа професійної підготовки педагога закладу вищої освіти

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Анотація

Самовиховання є невід'ємною складовою у професійній підготовці майбутнього фахівця, при цьому важливими критеріями хорошого педагога є високий рівень знань, широкий кругозір, багатий життєвий досвід вирішення педагогічних завдань та наявність навичок, що дозволяють доступно подавати складний матеріал. У статті розкрито сутність поняття «самовиховання», «професійне самовиховання», показано багатогранність діяльності педагога, розглянуто сучасні вимоги до професійної підготовки педагога. Сучасну ситуацію професійної підготовки фахівця у закладі вищої освіти можна охарактеризувати як перебудову свідомості й особистісного самопізнання, формування спрямованості на успішну професійну діяльність, пошук нових шляхів самореалізації та самоствердження. У таких умовах актуальною стає проблема самовиховання педагога як основи професійної підготовки, оскільки саме воно дозволяє формувати риси та якості, що зумовлюють здійснення успішної професійної діяльності, забезпечує процеси соціалізації та професійного становлення. Описано прийоми самовиховання педагога, адже позитивне оцінювання себе, здатність бачити і цінувати свої переваги загалом створюють перспективу подальшого професійного та особистісного зростання. Зазначено, що особистісне та професійне зростання безпосередньо залежить від процесів самоосвіти та самовдосконалення, це дозволяє найбільш ефективно реалізуватися майбутньому педагогові у своїй діяльності, забезпечуючи його розвиток та саморозвиток, сприяючи творчому підходу до справи. Доведено, що процес самовиховання у процесі професійної підготовки педагога закладу вищої освіти надзвичайно індивідуальний. Самовиховання починається із самоусвідомлення людиною себе як особистості і свого місця в суспільній діяльності, із розумінням норм та вимог суспільства, власних потреб і можливостей, правильного оцінювання своїх вчинків.

Ключові слова: самовиховання, професійне самовиховання педагога, професійна підготовка, прийоми самовиховання педагога, заклад вищої освіти

Problem statement. According to the Laws of Ukraine "On Education", in accordance with the National Doctrine of Education Development, the Concept of Civic Education of the Individual in the Development of Ukrainian Statehood, the problem of educating a highly spiritual, creative personality capable of ensuring the progress of the nation, the entry of our state to the level of civilized countries of the world is a priority at the present stage [5, p. 128].

Many researches show that teachers develop professional stereotypes, show signs of professional maladjustment and professional deformations, unwillingness to adapt to a new educational situation, and lack of desire for professional self-improvement and self-development. Therefore, the problem of self-education is becoming relevant, as it allows to form the traits and qualities that determine the successful professional activity, ensures the processes of socialization and professional development.

Analysis of the latest research and publications. In the scientific literature, the problem of self-education attracts the attention of many researchers. The foundations of the theory of general self-education are revealed in the works of O. Hlavatska, S. Karpenchuk, S. Kyrylenko, V. Orzhekhovska, V. Sukhomlynskyi, T. Khilko, and others. The problems of teachers' self-education and professional self-education are raised in the studies of V. Ishchenko, O. Kobenko, N. Nosovets, T. Stritievych, N. Tymoshenko, and others. The formation of professional and pedagogical communication is revealed in the works of: M. Boryshevskyi, V. Haluziak, M. Zabrotskyi, T. Yatsenko, the formation of professional readiness for pedagogical activity by V. Kaplinskyi, H. Nagorna, H. Trotsko and others.

The purpose of the article is to reveal the peculiarities of self-education as the basis of professional training of a teacher in a modern higher education institution.

Summary of the main research material. The problem of becoming a professional teacher who not only has professional competencies but also knows how to optimally solve professional problems in the modern educational space and rationally build their activities is extremely relevant, quickly adapt to changes, overcome difficulties in preparing for classes, relieve emotions and mental overload, manage their emotional state, develop readiness for complex and multifaceted activities, etc. Unfortunately, a significant percentage of teachers bring dissatisfaction, irritation, life's troubles with them to the lesson, are unable to interest in the educational material, correctly apply the latest methods and tools, motivate to educational activities, etc. [5, c. 212]. The problem of self-education occupies a significant place in the scientific and pedagogical heritage of V. Sukhomlynskyi. The scientist defined self-education as the highest stage of the educational process, which is carried out in the purposeful work of a person on their own development and self-improvement [4, p. 212]. In his pedagogical activity, V. Sukhomlynskyi attached great importance to the formation of a young teacher and the organization of his self-educational activities. He viewed this process as complex and multidimensional, involving the application of theoretical knowledge acquired by a young specialist in an educational institution; the first practical attempts to organize educational work; and the gradual gaining of their own pedagogical experience [4, p. 212].

M. Postoliuk considers self-education as a special type of activity aimed at self-knowledge, which can be systematic and planned, or it can be episodic. However, in defining the concept of «self-education» he abstracts from many of these features and proposes to understand «self-education» as «human activity aimed at changing their personality» [3]. C. Korolenko draws attention to the importance of such features as the development of positive qualities and overcoming negative ones [2, p. 35]. T. Hilko underlines the importance of purposefulness, systematicity and regularity of work on oneself [2, p. 38]. A broader approach to the definition of self-education is found in V. Orzhekhovska, who considers it «as a consciously controlled self-development of a person, in which, according to the needs of society, goals and interests of the person himself, the forces and abilities projected by the person are formed» [2, p. 45].

O. Hlavatska interprets self-education as a conscious, purposeful, creative activity of students aimed at mastering professionally important knowledge, skills, and abilities, development of professional abilities and professionally important qualities, values in accordance with the requirements of pedagogical activity, and ensures their readiness to perform professional functions, to self-realization in pedagogical work [1, p. 16]. The activity of a teacher in modern social conditions includes a number of functions: informational, developing, educational, cognitive, creative, educational, transformative, mobilizing, research, prognostic, counselling, communicational, linguistic, control and evaluation, social and psychological, etc. The function of professional self-education is particularly important. Self-education is a conscious, purposeful activity of a teacher aimed at improving their positive qualities and overcoming negative ones [6, p. 278].

Professional self-education is a conscious activity aimed at improving their personality, in accordance with the requirements of the profession to a person [5, 279].

There are some methods of teacher self-education [5; 6; 7; 8]

Self-esteem. A teacher's knowledge of themselves, their personal and professional qualities, as well as the emotional and value-based attitude that arises from this, are closely related to the desire for self-change. With a low self-esteem, a teacher begins to find insurmountable obstacles in every case, loses self-confidence, finds it harder to work, and finds it more difficult to contact and establish contacts with colleagues. A teacher's low self-esteem directly affects their attitude towards students and colleagues. Such a teacher is often unfair to those whom they consider more successful; they are distrustful and negative towards those who, in their opinion, do not like them, do not respect them, and who are suspicious and distrustful. In their activities, they implement an

authoritarian management style that establishes strict discipline. On the contrary, high self-esteem distances the teacher from students and colleagues, which prevents the establishment of normal business contacts and the creation of a positive psychological climate [6].

A teacher who perceives themselves positively usually has increased self-confidence, satisfaction with their profession, and overall work efficiency. This kind of teacher strives for self-actualization, self-realization, and thus for creative solutions to the problems of teaching and upbringing. A teacher's positive self-concept is closely related to their friendly attitude toward students. Teachers with low self-esteem often experience feelings close to hostility towards the most capable students [6].

Positive self-perception of a teacher has a beneficial effect on the development of students' abilities. A person can become a creative individual only when they feel independent during their years of study. Teachers who have high self-esteem, a positive attitude towards themselves, freedom from excessive anxiety and self-criticism have the most favourable influence on students, allowing them to feel free and express their individuality.

Self-order. This short, fragmentary instruction to yourself, such as «Speak calmly!», «Do not give into provocation!», helps to restrain emotions and follow the requirements of ethics. This technique is used when a teacher has already convinced themselves that they need to behave in a certain way. He is aware of his shortcomings, but he cannot bring himself to follow through on his plan of action. At this point, it becomes necessary to resolutely require the necessary action in the form of an order. The next time you do this, it will be easier to perform, and it will become a habit. If the self-order does not help, you need to repeat it several times. You can do it out loud. Sometimes it takes several weeks or even months to apply the self-imposed order [7].

Self-suggestion. This technique helps you to behave within the rules of cultural behaviour accepted in this society and to control yourself in difficult situations. Self-suggestion can be used in the process of self-education of personality qualities. Thus, for several weeks, and sometimes months, in order to change behaviour, it is necessary to repeatedly say a pre-prepared phrase: «I will behave correctly», «I will not raise my voice under any circumstances!», «I will listen to the interlocutor without interrupting!», «I will not be angered by any remarks of other people!».

Self-encouragement. When we are faced with a life problem that seems difficult and sometimes insoluble, it is advisable to «look back» and remember our achievements. Previous successes tell a person about his or her capabilities, about hidden reserves in the mental, intellectual, and strong-willed spheres, and give them confidence in their abilities. Encouraging words can help with this problem, for example: «Today I will not be afraid of life, I will love and believe» etc. The use of associations with unique objects, natural phenomena, etc. will help enrich consciousness with positive, emotionally coloured images related to all aspects of the personality [7].

Self-regulation. This technique makes it possible to regulate emotions in difficult situations. For this purpose, you can use the necessary attitude, for example, «I can conduct a dialogue in a calm and confident voice, showing a model of endurance and self-control! There is no reason to get upset!»

Self-control. Self-control serves as the ability to treat other people with restraint, to tolerate their shortcomings, weaknesses, and mistakes. Constant self-control develops the ability not to get irritated in critical situations. Self-regulation and self-control involve learning to monitor external expressions of emotional states. By changing the external expression of emotion, you can adjust your internal mental condition. For example, trembling fingers cause indecision and self-doubt; warning intonations increase anxiety. Conversely, by training oneself not to wave hands in a conversation, not to hunch over, but to stand with shoulders back, stomach tight, demonstrating good posture, smiling in moments of confusion, looking confident and strict in a conflict situation, a teacher gains self-confidence, not getting lost in a moment of strong anxiety or in the event of an unexpected situation. If you still fail to control your emotions and have a breakdown, you need to calm down, pull yourself together, and you can do the following: walk silently and thoughtfully around the classroom, taking two breaths in and three breaths out, counting the steps unnoticed by the students, in your mind. Movement, breathing, and counting steps quickly take the teacher away from the situation and calm them down [8].

Reflection plays an important role in self-regulation. Awareness of the incompatibility of your principles, thoughts, and actions will help you to outline ways to consolidate new elements of behaviour. It is important to keep in mind that the higher the person's intelligence, the more efficiently self-regulation functions. At the same time, it is necessary to take into account the fact that the experience of troubles depends not so much on objective as on subjective reasons (the teacher's characteristics, self-confidence, and assessment of the situation). In other words, the experience of a situation depends not so much on what happens as on how we react to what has happened.

Self-correction. It is the ability to control one's actions and exercise self-managed behaviour. This method of self-education allows you to correct your actions, teaches you to be emotionally stable and quickly calm down in difficult situations. Self-correction allows you to transform negative thoughts and feelings that destroy your life potential into a harmonious structure. If such a transformation occurs consciously, it leads to a more effective use of the personality's life potentials. Self-correction is one of the most effective ways of self-education for teachers.

Self-stimulation. The methods of self-encouragement and self-punishment can be of great help in the self-education of a teacher of a higher education institution. In the case of even minor successes, it is reasonable to praise yourself, mentally saying: «Great!», «Well done!», «You have done well». It is recommended to use self-reward

and self-punishment reactions to regulate the behaviour on a regular basis. At the same time, it is obvious that it is necessary to use them depending on the situation. Often, people do not receive a positive assessment of their behaviour and actions from others. This becomes one of the reasons for increased nervousness, dissatisfaction with themselves, and lower self-esteem. In such a situation, self-reinforcement of the results of activities is necessary. You can reward and punish yourself not only verbally. For example, you can reward a well-done job by spending a night out with friends, going to the theatre. Depriving yourself of pleasure will be an effective means of self-punishment. reading a fascinating book, etc.

Conclusions and perspectives. Therefore, the process of self-education as the basis for the professional training of a teacher of a higher education institution is extremely individual. To achieve the desired result and bring your real image closer to the ideal, you need to systematically study yourself, know your strengths and weaknesses, be able to manage your own development and take personal responsibility for your own life without shifting it to others, and constantly form the inner core on which not only professional but also personal growth will be based. In pedagogical work, personal growth is a prerequisite for achieving professionalism. It is necessary to build a professional and educational strategy that considers specific features and needs, as well as an educational trajectory to achieve the desired goal. The solution of the problem of self-education of teachers is conditioned by the need to find and justify ways to humanize and improve the quality of education, as well as to ensure reflective self-organization of professional activity.

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