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DOI: 10.31110/2616-650X-vol12i3-009

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МЕТОДОЛОГІЧНІ ЗАСАДИ РОЗВИТКУ КРИТИЧНОГО МИСЛЕННЯ МАЙБУТНІХ ЕКОНОМІСТІВ В ПРОЦЕСІ ЇХ ПРОФЕСІЙНОЇ ПІДГОТОВКИ

Анотація. Цифровізація українського суспільства обумовлює запит на фахівців економічних спеціальностей, які ефективно працюють на розвиток цифрової економіки країни. Це актуалізує модернізацію їх професійної підготовки та розвиток у них різних професійних якостей. Потреба розвитку критичного мислення у процесі професійної підготовки майбутніх економістів потребує об'єктивності та надійності наукових висновків, що вимагає розроблення наукового підґрунтя, на якому такий розвиток відбуватиметься. Іншими словами, потребує розбудови методологічна основа розвитку критичного мислення майбутніх економістів в процесі їх професійної підготовки. Мета статті: виявити і обґрунтувати методологічну основу для розвитку критичного мислення майбутніх економістів засобами інформаційних технологій. Для досягнення мети використано низку методів: теоретичний аналіз, систематизація і узагальнення наукових результатів, присвячених проблемам підготовки майбутніх економістів, використання інформаційних технологій у підготовці майбутніх економістів, розвитку критичного мислення молоді. Використано матеріали Google-академії за запитами «критичне мислення», «розвиток критичного мислення», «підготовка економістів», «використання інформаційних технологій», «методологічні засади», «методологічні підходи», «засоби інформаційних технологій у підготовці економістів», «підготовка студентів економічних спеціальностей». Результатом дослідження є обґрунтування важливості методологічних підходів (системний, аксіологічний, синергетичний, особистісно-орієнтований, когнітивно-візуальний, контекстний) для розвитку критичного мислення майбутніх економістів засобами інформаційних технологій.

Ключові слова: критичне мислення; розвиток критичного мислення; методологічні засади; майбутні економісти; професійна підготовка; професійна освіта.

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METHODOLOGICAL FOUNDATIONS FOR THE DEVELOPMENT OF FUTURE ECONOMISTS' CRITICAL THINKING IN THE PROCESS OF THEIR PROFESSIONAL TRAINING

Abstract. The digitalization of Ukrainian society creates a demand for specialists in economic specialties who work effectively to develop the country's digital economy. That actualizes the modernization of their professional training and the need to create various professional qualities, particularly critical thinking. The need to develop critical thinking in training future economists requires the development of a scientific basis on which such development will take place. In other words, a methodological basis for developing future economists' critical thinking in their professional training needs to be developed. The article aims to identify and substantiate a methodological basis for the development of critical thinking of future economists using information technologies. To achieve this goal, we used several methods: theoretical analysis, systematization, and generalization of scientific results on the problems of training future economists, the use of information technology in the training of future economists, and the development of critical thinking of young people. We used the materials of Google Academy for the following queries: "critical thinking," "development of critical thinking," "training of economists," "use of information technologies," "methodological principles," "methodological approaches," "information technologies in the training of economists," "training of students of economic specialties." The result of the study is the substantiation of the importance of methodological approaches (systemic, axiological, synergistic, personality-oriented, cognitive-visual, contextual) for developing critical thinking of future economists through information technologies.

Keywords: critical thinking; development of critical thinking; methodological principles; future economists; professional training; professional education.

Statement of the problem. The new social contract between government, business, and universities, which takes into account European values, is based on the digital skills of the younger generation, changes in business models and high-quality cooperation between universities and companies and governments, customers of highly qualified workforce in the field of digital entrepreneurship. This leads to a demand for specialists in economic specialties who effectively work to develop the country's economy in the Digital era, and therefore, the problem of their professional training and development of their sought-after qualities.

Analysis of current research. Generalization of scientific research, in particular [10; 24; 27; 32] allowed us to highlight trends related to the digitalization of higher education:

- implementation of digital tools and technologies in the practical training of future economists [9];
- the development of online education [18] and distance learning [16]
- development of digital educational platforms to ensure "lifelong learning" [31];
- creation of a virtual (digital) educational environment [19];
- public demand for the development of critical thinking of young people [30].

The study of the last trend (the need to develop critical thinking) in the context of professional training of future economists requires objectivity and reliability of scientific conclusions, and this, in turn, requires a balanced approach to the scientific basis on which such development will take place - the development of a methodological basis for the development of critical thinking of future economists in the process of their professional training.

The Vseosvita resource interprets the concept of "Methodology" (from the Greek Methodos is a path of research or cognition; logos — teaching) as "a systematized set of approaches, ways, methods, techniques and procedures used in the process of scientific knowledge and practical activity to achieve a predetermined goal" [13]. In G. Tsekhmistrova's manual, the methodology is 1) a set of research techniques used in a particular science; 2) the doctrine of the methods of cognition and transformation of reality." At the same time, "the methodology of science (from the Greek methodos - method, and logos - science, knowledge) is a system of methodological and methodical principles and techniques, operations and forms of constructing scientific knowledge" [14].

In professional training, it is important to use scientific approaches to form and develop a certain quality that has already proven effective. The analysis of scientific and pedagogical literature provides the basis for highlighting scientific approaches that allow us to determine the methodological basis for developing the critical thinking of future economists using information technology.

The article aims to substantiate the expediency of systemic, axiological, synergistic, personality-oriented, cognitive-visual, and contextual approaches to developing the critical thinking of future economists using information technology.

Methods: theoretical analysis, systematization, and generalization of scientific results devoted to the problems of training future economists, the use of IT in the training of future economists, and the development of critical thinking of young people. The materials of the Google Academy were used for the queries "critical thinking," "development of critical thinking," "training of economists," "use of IT," "methodological principles," "methodological approaches," "IT tools in the training of economists," "training of students economic specialties."

Statement of the main material. *The system approach* allows considering the pedagogical process as a complex non-linear formation and applying to it the methodology of system analysis, which makes it possible to identify the components and functional relationships between the stable properties of the pedagogical process and the variable characteristics of personal and professional development, to analyze the ability of participants in the educational process to self-organization, active, creative design of their educational activities. The systematic approach is most common in scientific and pedagogical research. It is represented in the works of many scholars [3].

Within the system approach framework, the development of critical thinking in future economists during professional training using IT is considered an integral pedagogical system. The elements of this system are interrelated and interdependent and make up a specific structure. Like any other system, the system of such training will function only if the structural components interact.

The axiological (value-based) approach is leading in developing future economists' critical thinking in their professional training using IT. Critical thinking is based on the values of knowledge and creativity, which is the main distinguishing feature of critical thinking from other types of thinking. The role of the axiological approach in the professional training of future specialists is considered in the studios [11]. In the European context [4] we note the dominant universal values of professional training of specialists:

- knowledge and creativity – this is associated with the significant development of technology, and the ability to work with information and produce new knowledge becomes necessary, accordingly;
- human life as a value - a self-sufficient person who realizes himself in the personal, professional, and social dimensions; the key to this is high-quality education.

It is the list of intellectual values that is closely related to critical thinking because possessing such thinking is undoubtedly a value that will allow you to treat the motives of professional activity accordingly and adequately evaluate information. From this, it follows that a modern specialist in economics should not only be competitive but also have formed intellectual values.

Considering the peculiarities of the consciousness of future specialists in economics, consciousness should be viewed as the primary personal value. The training of such specialists should be aimed at social self-development, promote the formation of students as professionals, increase their social adaptability, and develop and initiate their creative activity in every possible way. The personal development of students today

should be based on the use of IT to solve the tasks assigned to the future specialist [28]. Therefore, professional development requires the active use of modern information technologies.

Thus, taking into account the main provisions of the axiological approach for the development of critical thinking of future economists using IT requires a focus on higher professional education as a value; introduction of technology for the development of critical thinking in such a way that it corresponds to the world pedagogical practice; use of the system of professional values; establishment of a system of work on the development of critical thinking of future economists in the process of professional training using IT based on universal and intellectual values.

The synergetic approach is significant for our study since its provisions allow us to consider the personality as a self-sufficient creator of its development. In contrast, the development of the individual is not a spontaneous process but requires pedagogically competent and delicate regulation. The study of this approach is devoted to the studies of well-known domestic and foreign scientists, among whom we note [8].

The concept of "synergetics" (from the Greek *συνεργιστικά* — joint action) is interpreted as: "a general scientific transdisciplinary program for the study of self-organization processes in systems of different nature (physical, chemical, biological, technical, social, etc.); as a joint action of environmental elements in a non-equilibrium state." [26].

The development of critical thinking of future economists in the process of professional training is an integral system in which the personality of the future specialist is considered as self-developing and self-educating; professional and personal development of future economists can be viewed as a non-linear process, accompanied by crises that require immediate intervention by the teacher to avoid negative consequences through the analysis of situations; the processes of self-organization during the development of critical thinking of future economists in the process of professional training using IT are carried out under the influence of the teacher within a reasonable restriction of freedom of choice and are managerial. Thus, the development of critical thinking of future economists using IT in the process of professional training is an open chaotic system, which is characterized by chaos, order, self-organization, and bifurcation, which are the basis for constructive development, that is, it is a system in which the source of development is laid.

A person-centered approach to the development of critical thinking emphasizes the correct interaction of the subjects of the educational process [15]. Critical thinking is independent and individual for everyone. The person-centered approach is based on the fundamental ideas of humanization, personalization, and differentiation of learning, which resonate with the ideas of personality development (I. Bekh, S. Maksymenko, O. Piechota, S. Podmazin, V. Rybalka, etc.). The student-centered approach affects all components of the education system: educational and educational goals of education educational content, Technology, Didactics, and Teaching Methods Abroad; attention is also focused on the need to introduce the principles of student-centered learning, which is confirmed by the works of D. Milliken and others [6].

The person-centered approach is the basis for building a natural system for developing a unique personality, considering each individual's characteristics. Pupils/students have ceased to be objects of learning, but on the contrary, they can explore, learn, self-educate, and develop independently. We are very impressed by the conclusions of S. Podmazin, according to which the primary goal of personality-oriented education is not even education but the support of a person, the development of mechanisms for achieving personal growth, adaptation, self-education, regulation, self-defense, self-education, which are necessary for the formation of an original image of a person and a safe, dialogical way of interaction with people, nature, culture, civilization. [12].

That means that a person-centered approach to the development of critical thinking in the professional training of future economists allows a young person to receive a genuinely high-quality university education, which is defined in the Law "On Higher Education" as a set of systematic knowledge, practical skills, way of thinking, professional qualities, worldview and civic views, values, moral values, ethics and other skills acquired in a higher education institution.

A personal approach to developing critical thinking in future economists contributes to introducing personality-oriented learning technologies. They are characterized by a variety of techniques for activating the mental activity of students, clarity of didactic objectives in terms of a role perspective; structuring educational information in the form of imitation game models and problem situations; a combination of different types of learning (problem-based, programmable, game-based, dialogical, modular, etc.); use of active forms and methods of education; engaging students in positive activities by playing an educational role and finding ways out of problem situations; to promote the development of student's creative potential, as well as their capabilities and abilities; pedagogical interaction, cooperation, co-creation in the system of relationships "teacher-student"; freedom to choose roles, task situations and ensure the success of everyone in the educational process.

Visual-Digital Approach [23; 29] in vocational education is driven by changes brought about by information and digital technologies to ensure visual communication and transform the educational process from a verbal to a more visual format.

Many scientists (S. Aranova, V. Davydov, P. Erdnev, L. Zankov, V. Zinchenko, G. Lavrentyev, N. Manko, and others) laid out the principles of visualization and the visual approach in the educational process. [22]]. Visualization is aimed at a more complete and active use of the natural opportunities provided by the intellectual accessibility of the presentation of educational material. The combination of visual images, text, and oral explanations of the teacher leads to multisensory perception, which is consolidated when working with a computer. The multisensory perception of educational information allows people to learn in the most favorable organic system for them and, above all, stimulates the development of cognitive systems that are secondary to the individual. Visualization itself today has become possible thanks to a variety of digital technologies and tools and gadgets, including mobile devices (laptops, tablets, smartphones, etc.), as well as general software tools and specialized areas (for example, augmented reality applications, digital data analytics technologies, etc.). Therefore, digital support of the educational process cannot be separated from visual backing and, therefore, cannot be separated from integrating two approaches – visual and digital.

In addition, it will be possible for economists to perform complex calculations quickly, visualize data, work with external data sources, create macros and scripts, use filtering tools, and make forecasts – all of which will be possible for economists using modern computing tools. Future economists (marketers, analysts, digital experts, accountants and economists, managers, traders, and entrepreneurs) should know how to systematize chaos into numbers, units of data, and information, how to work with visualizations, and how to present significant data in a simple and understandable form in just a few clicks [21].

Therefore, in developing the critical thinking of future economists, it is essential to focus on the visualization of educational materials with the help of computer tools, which today is already carried out with the participation of digital means. During the visualization, deep internal connections and associations will be revealed, providing a basis for confirming understanding of a particular fact, process, or concept. The possibilities of multimedia technologies today and the ability to use them to present educational material will stimulate cognitive interest and provide a positive attitude to the learning process. Thus, the visual-digital approach in intelligence is used to give visibility and reflection in the action of deep internal, external, and associative connections of leading concepts and processes through the use of DT and tools, both general and specialized.

The contextual approach is investigated in the works [1; 5; 7; etc.]. Within the framework of the contextual approach, they talk about contextual learning (or sign-contextual learning) as a conceptual basis for the integration of various types of student activities (educational, scientific, practical) and present it as training in which the content and social aspects of professional work are dynamically modeled to provide conditions for the transformation of work, educational activities of students into professional behavior and practice of a specialist, the implementation of a dynamic motor model of student activity from educational activities (in the form of a lecture, for example) to semi-professional (in the form of a game) and educational and professional activities (student's research work, industrial practice, etc.). The development of critical thinking should take place through educational and professional activities [20]. We focus on the interpretation of the teaching of general education subjects related to professional activities. The article [17] The article focuses on the importance of using interactive learning methods (contextual teaching methods). This approach is consistent with the generally accepted methodology for developing critical thinking.

Thus, the contextual approach to developing critical thinking of future economics specialists in professional training is focused on combining educational and quasi-professional through active, in particular games, forms, and educational and professional activities. An essential characteristic of the contextual approach is the problem-based nature of learning, ensuring interdisciplinary connections in professional training and reliance on contexts aimed at future professional activities (texts of lectures, textbooks, manuals, etc.). In light of our research, implementing the contextual approach will bring the conditions of training future economists as close as possible to future professional activities, considering the IT factor.

Conclusions. The methodological approaches we substantiate (systemic, axiological, synergistic, person-oriented, cognitive-visual, contextual) should be considered when we want to develop the critical thinking of future economists by designing, creating, and using IT.

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