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КОМПАРАТИВНИЙ АНАЛІЗ СИСТЕМ ОСВІТИ: ІННОВАЦІЙНІ ПЕДАГОГІЧНІ ТЕХНОЛОГІЇ

**ШАНДРУК Світлана Іванівна, РАДУЛ Валерій Вікторович. КОМПАРАТИВНИЙ АНАЛІЗ
СИСТЕМ ОСВІТИ: ІННОВАЦІЙНІ ПЕДАГОГІЧНІ ТЕХНОЛОГІЇ**

Інтеграція України у світовий освітній простір, необхідність вивчення й упровадження світового досвіду в галузі професійної підготовки фахівців потребують компараторівістських досліджень та аналізу зарубіжного досвіду підготовки спеціалістів в системах вищої професійної підготовки, в країнах Європейського Союзу та США. Результати таких досліджень дадуть досить повну картину сучасної системи вищої професійної освіти в ЄС та США, її змісту, організаційних форм, технологій, внутрішніх та зовнішніх чинників еволюції, що сприятиме осмисленню, узагальненню та впровадженню у практику сучасної професійної підготовки інноваційних пошуків, технік та технологій підготовки фахівців.

Ключові слова: компараторівій аналіз, системи освіти, системний підхід, системний аналіз, інноваційні технології, науковий інструментарій

**SHANDRUK Svitlana Ivanivna, RADUL Valerii Viktorovych. COMPARATIVE ANALYSIS OF
EDUCATION SYSTEMS: INNOVATIVE PEDAGOGICAL TECHNOLOGIES**

Integration of Ukraine into the global educational space, the need to study and implement world experience in the field of professional training of specialists require comparative research and analysis of foreign experience in training specialists in higher professional training systems, in the countries of the European Union and the USA. The results of such research will provide a fairly complete picture of the modern system of higher professional education in the EU and the USA, its content, organizational forms, technologies, internal and external factors of evolution, which will contribute to understanding, generalization and implementation of innovative searches, techniques and technologies for training specialists into the practice of modern professional training.

A systems approach is a general method (modern general scientific methodology) of research and cognition of complex objects (systems), which is used in all areas of science, technology, management, etc.

Systems analysis implements cognitive and methodological functions. It acts as an integral set of relatively simple methods and techniques of cognition and transformation of reality. The methodology of systems analysis is a rather complex set of principles, approaches, concepts, specific methods and techniques. As a simple version of the system analysis methodology, the following sequence can be considered: problem formulation; system structuring; model construction; model research.

System analysis uses specific scientific tools. It consists of the following methods: informal heuristic (methods of scenarios, expert assessments, diagnostics, «cross» comparisons); graphical («goal tree», network, matrix methods); quantitative (economic analysis, cost-effectiveness

analysis, statistical methods, morphological analysis, method of aggregating variables into complex factors).

The ultimate goal of systems analysis is to assist in understanding and solving an existing problem, which boils down to finding and choosing a solution to the problem.

Keywords: comparative analysis, education systems, systems approach, systems analysis, innovative technologies, scientific tools.

Formulation and justification of the relevance of the problem. At the current stage of development of Ukrainian society, attention is increasing to comparative studies aimed at analyzing and interpreting the state, general and distinctive features, and trends in the development of pedagogical theory and practice of various pedagogical systems in countries and regions of the modern world. The problem of harmonizing the national education system with recognized world and European standards is global in nature, since its solution directly affects the formation of professional qualifications.

The reform of the educational sector of Ukraine is taking place using world experience in adapting a person to life in the competitive conditions of modern society.

Changes in the content and structure of higher education are profound and require solving the problems of training a specialist who is aware of his social responsibility, constantly cares about his personal and professional growth, knows how to achieve new professional goals, and realizes the importance of continuous development of professional competence.

An important source for determining strategic directions for the development of higher education in Ukraine is comparative research on the experience of training specialists abroad. Significant changes are needed in the system of professional training of specialists, adequate to modern educational priorities and tasks. That is why Ukrainian pedagogues are interested in the experience of other developed countries in the field of training professional personnel.

Analysis of recent research and publication. The system of professional training of specialists of each country is a component of the world education system, a powerful factor in the development of the productive forces of society and the spiritual culture of the people. Therefore, its scientific knowledge requires a systematic approach, and improvement is impossible without comparative analysis with other countries of the world.

This necessitates the need to conduct analytical research on the problem of training competent specialists in highly developed countries of the world and to evaluate the activities of educational institutions in the system of higher professional education.

Over the past decade, Ukrainian scientists have conducted comparative studies (N. Bidyuk,

T. Desyatov, V. Zhukovsky, T. Koshmanova, M. Leshchenko, O. Leshchynsky, A. Maksymenko, O. Ogienko, A. Sbruyeva, V. Chervonetsky, B. Shuneyvych etc.), which allowed us to determine the diversity of national educational systems and identify their main common features.

The purpose of the article. Innovative pedagogical technologies, in particular a systematic approach for conducting a comparative analysis of the education systems of Ukraine, the USA and the EU.

Presentation of the main research material. Ukraine's integration into the global educational space, the need to study and implement world experience in the field of professional training of specialists require comparative research and analysis of foreign experience in training specialists in higher professional training systems, in the countries of the European Union and the USA. The results of such studies will provide a fairly complete picture of the modern system of higher professional education in the EU and the USA, its content, organizational forms, technologies, internal and external factors of evolution, which will contribute to the understanding, generalization and the implementation of innovative searches, techniques and technologies for training specialists in the practice of modern professional training.

The development of Ukraine as an independent, democratic, legal European state requires the creation of an appropriate system of professional training of specialists, aimed at ensuring fundamental scientific, general cultural, and practical training of specialists who determine the pace and the level of scientific and technical, economic, social, and cultural progress and are capable of constant updating of scientific knowledge, professional mobility, and rapid adaptation to changes in the socio-economic sphere, in the field of science, engineering, and technology.

The most active and radical changes in recent decades have been experienced by the educational systems of developed English-speaking countries (USA, Great Britain (England), Canada, Australia, New Zealand). The appeal to their reformation experience is due to a number of reasons, among which the following are among the main ones:

– the transformation of developed English-speaking countries into the leading globalizing force of our time (primarily the USA, Great Britain, Canada). Stereotypes of reform processes that are characteristic of the educational systems of these countries are actively spreading to the rest of the world, primarily to developing countries;

– intensification of contacts between the governments of developed English-speaking countries in the field of educational policy. Their results were the introduction of a number of reform strategies that were similar in ideological and conceptual foundations;

– the formation by representatives of academic communities of developed English-speaking countries of a single international educational and theoretical community, the opinions of which guide educational theorists and practitioners around the world;

– increasing the influence of the educational policy of developed English-speaking countries on the educational programs of influential international political, economic, financial, cultural and educational organizations and, through them, on the processes of educational change throughout the world;

– «English-speaking» as a unifying feature of a group of countries has a deep essential meaning. Linguistic community is a manifestation of common historical roots, an essential feature of which has always been a liberal political tradition. It has become an important condition for systematic educational, political and academic contacts, thanks to which the practice of borrowing reformation ideas developed, and the educational theory of English-speaking countries became a phenomenon that is increasingly gaining global significance. In addition, English is the language of global communication both in modern information and communication networks and in international organizations, which significantly increases the influence of the relevant countries on the entire world community [3, p. 3].

Ukraine's search for its own ways of developing education in the context of increasing globalization influences is a complex and contradictory process. It is less and less a free choice of the state itself and more and more determined by the priorities that exist in the vast spaces, European and global, of which we are an integral part today. The analysis of these priorities should help Ukrainian educators, politicians, theorists, and practitioners understand the processes taking place in their professional field [3, p. 4].

Scientists define the education system as a set of educational institutions (both state and non-state, informal, alternative) that differ in the

level of education and professional direction [4, p. 18].

The education system is a structure whose development is determined, first of all, by the educational policy pursued in the state. Educational policy in higher education is aimed at improving individual aspects of the process of training specialists, therefore qualitative changes in professional training should be considered within the framework of a systemic approach.

Currently, pedagogical science widely uses a systems approach to researching education systems and the processes that occur within them. This methodology of pedagogical analysis is also valid when studying foreign education systems.

The methodological basis of comparative research is the concept of system analysis of complex systems. The system of professional training of specialists in the USA and the EU can be analyzed from the standpoint of the general theory of systems (V. Sadovsky, V. Spitsnadel, Yu. Surmin, etc.); the theory of professional training of specialists (N. Nichkalo, V. Semichenko, S. Sysoeva, etc.); cybernetics (M. Zgurovsky, M. Ilchenko, S. Yakovlev, R. Akoff, N. Wiener, J. Neumann, etc.), synergetics (H. Haken), system modeling (I. Stetsenko, V. Tomashevsky, W. Kelton, etc.). Modern pedagogical science has encountered problems, the solution of which requires the complex efforts of specialists from various sciences, which has led to the penetration of the systemic movement into pedagogical problems.

The systems approach is a general method (modern general scientific methodology) of research and cognition of complex objects (systems), which is used in all areas of science, technology, management, etc. The essence of the systems approach lies in considering objects as systems. The general theory of systems is a theory which generally describes systems of various classes and types and develops specific methods for their analysis. Systems analysis is an applied discipline, one of the forms of concrete implementation of the systems approach and systems theory, which is used in the analysis of social systems and management problems [1].

System analysis implements cognitive and methodological functions. It acts as an integral set of relatively simple methods and techniques of cognition and transformation of reality. The ultimate goal of any system activity is to develop solutions both at the stage of system design and when managing them. In this context, systems analysis can be considered an amalgam of the methodology of general systems theory, the systems approach, and systems methods of reasoning and decision-making [1].

The methodology of system analysis is a rather complex set of principles, approaches, concepts, specific methods and techniques. The existing methods of system analysis of S. Optner, E. Quaid, S. Yang, E. Golubkov, Y. Chernyak have not yet received a sufficiently convincing classification that would be unanimously accepted by all specialists. As a simple version of the system analysis methodology, the following sequence can be considered: problem formulation; system structuring; model construction; model research. From the analysis and comparison of the methods of S. Optner, E. Quaid, S. Yang, E. Golubkov, Y. Chernyak, it is obvious that they present the following stages in one form or another: identifying problems and setting goals; developing options and a decision-making model; evaluating alternatives and finding a solution; implementing the solution [5].

The procedural basis of systems analysis is mathematical modeling, and the technical basis is information systems. The procedure of systems analysis can be defined as follows: definition and justification of a goal or a set of goals; selection of alternative means, i.e. courses of action, on the basis of which the goal can be achieved; determining the costs of the necessary resources (material, financial, labor, time, etc.); developing a logical-mathematical model or models, each of which reflects the relationships between goals, alternative courses of action, means of achieving them, the environment and resource needs; defining criteria and indicators by which goals and costs are compared in each specific case, etc.

Systems analysis assumes the availability of a sufficient amount of necessary information about the essence of the problem, its logical structure, connections with other (external to this) problems, about the necessary resources, about various factors that influence the solution of the problem, etc. Many of these factors cannot be quantified and can only be taken into account using the knowledge, experience, and intuition of experts and specialists regarding the problem under study and related issues [4].

System analysis uses specific scientific tools. It consists of the following methods: informal heuristic (methods of scenarios, expert assessments, diagnostics, «cross» comparisons); graphical («goal tree», network, matrix methods); quantitative (economic analysis, cost-effectiveness analysis, statistical methods, morphological analysis, method of aggregating variables into complex factors). In fact, at all stages of system analysis, such a universal method of cognition as modeling is used [2, p. 8–12].

The ultimate goal of systems analysis is to assist in understanding and solving an existing problem, which boils down to finding and

selecting a solution to the problem. The result will be a selected alternative, either in the form of a management solution or in the form of creating a new system (in particular, management systems) or reorganization of the old one, which is again a management decision. Practitioners see the methods of conducting system analysis as an important tool for solving problems in their subject area. In each subject area, for different types of problems to be solved, a systems analyst has to develop his own system analysis methodology based on a large number of principles, ideas, hypotheses, methods, and techniques accumulated in the field of systems theory and systems analysis. Systems analysis has many specific varieties, which makes this type of analysis quite promising [4, p. 224].

A systematic approach to assessing foreign pedagogical experience involves considering both individual invariant and integrative aspects of the educational process and a holistic coverage of the education systems of different countries or regions in their unity and internal connections. System analysis allows us to identify trends and contradictions in the development of education, factors influencing and acting on this development, select the most successful experience, assimilate it and transform it into practice. At the same time, it is important not only to record the positivity of the experience, but also to identify the content and trends of didactic searches; to comprehend the fundamental provisions of building the educational process, which are developed in the world theory and practice of education [5].

To use a systems approach, it is necessary to highlight those characteristics that fully represent the essence of the system, for example, the higher education systems of the EU and the USA. At the same time, it is important to identify trends that reflect the directions and contradictions of the development of world educational practice, and the factors that characterize this development. In this case, it is necessary to determine what is positive and most valuable for pedagogy in the experience of a particular national system of professional training of specialists.

Within the framework of the systemic approach in comparative studies, the structure of the development process of the object under study and its substrate are investigated, as well as the criteria (characteristics) that determine the levels of development of the system. The substrate is the field of research issues [5]. All kinds of changes are evaluated: large or small; stable or reversible; universal or special; those that preserve the ability for further development or those that lead to a dead end; those that

increase or those that decrease the level of organization, etc.

Thus, the systemic approach allows us to see the object as a complex of interconnected subsystems united by a common goal, to reveal its integration properties, as well as internal and external connections. The systemic approach involves a consistent transition from general to partial, when the consideration is based on a specific ultimate goal: to carry out a holistic scientific analysis of the problem of professional training of specialists in the United States and to determine the directions of using American experience in Ukraine.

Conclusions and prospects for further research. A systems approach means that each system is an integrated whole even when it consists of separate disconnected subsystems. For example, the system of professional training of pedagogues includes the system of higher pedagogical education and the system of postgraduate education.

The systemic approach and the systemic method of analysis are characterized by integrity and complexity. The systemic analysis of our research is a methodology for clarifying (understanding) or ordering (structuring) the problem, which consists in studying and analyzing foreign experience in professional preparation of specialists in foreign countries. The systems approach (systems analysis method) requires consideration of all phenomena and processes in their mutual connection. It focuses on considering pedagogical phenomena from the point of view of such categories as system, relationship, connection, interaction. Using this approach allows the researcher to isolate the elements and determine the composition of the system; find the way in which the elements are interconnected; identify the system-forming, dominant factors; establish the level of integrity of the system; study its interaction with the external environment; identify its functions. Thus, the use of a systemic approach in comparative pedagogical research allows for the analysis of the phenomenon under study in relation to the development trends of the national system.

The results obtained can be used in research on the theory and history of pedagogy, philosophy of education, comparative pedagogy and pedagogical forecasting. The obtained materials can be applied in the educational process of higher and secondary educational institutions, when writing textbooks, teaching aids, developing lecture courses, teaching selective training courses, as well as for developing special courses and conducting special seminars both in the system of professional training of future specialists and in

the system of postgraduate education. Comparative research will contribute to further reforming the education system in Ukraine, deepening the structure and content of multi-level professional training of specialists, and will become the basis for further research on the theory and history of pedagogy and professional education.

The system of professional training of specialists in Ukraine in the new socio-economic conditions of the transition to a market economy is searching for ways to reform it, taking into account global trends. A comparative study of the experience of professional training of specialists in the USA and the EU will allow us to predict ways of reforming the system of professional training of specialists, and will help in solving similar problems facing national higher education during its transformation and integration into the European and global educational space.

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ВІДОМОСТІ ПРО АВТОРІВ

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ВЗАЄМОДІЯ ТІЛЕСНИХ ВІДЧУТТІВ ТА РУХОВИХ ПРАКТИК У ФОРМУВАННІ ХОРЕОГРАФІЧНОГО ВИКОНАВСЬКОГО СТИЛЮ

ШЕТЕЛЯ Наталія Ігорівна, ЧЕРКАСОВ Володимир Федорович. ВЗАЄМОДІЯ ТІЛЕСНИХ ВІДЧУТТІВ ТА РУХОВИХ ПРАКТИК У ФОРМУВАННІ ХОРЕОГРАФІЧНОГО ВИКОНАВСЬКОГО СТИЛЮ

У статті доведено, що взаємодія між тілесними відчуттями та руховими вправами становить основу хореографічного виконавського стилю. Фізичні вправи та свідомі рухи сприяють розвитку танцівників, покращуючи їхні технічні навички та емоційну виразність. Це дозволяє не тільки виконувати рухи, але й відчуваючи та розуміти своє тіло на більш глибокому рівні під час танцю.

Ключові слова: тілесні відчуття, рухові практики, хореографічний виконавський стиль.