INNOVATIVE TECHNOLOGIES FOR THE TRAINING OF CIVIL SERVANTS IN UKRAINE

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Abstract: Modern conditions for the development of statehood place high demands on the formation of a highly professional corps of state and municipal employees. One of the priority areas is the innovative education of high-quality, highly qualified and competitive young personnel. The innovative orientation of personnel policy in the public service system involves the development of professional qualities of the state personnel corps in order to bring them into line with the renewed tasks of the state in managing transforming social relations. The article examines the problems and challenges in the field of training civil servants in Ukraine. Based on analysis of the experience of developed countries, as well as taking into account modern realities and prospects for the civil service, directions for improving pedagogical technologies for training civil servants in Ukraine are proposed.

Keywords: civil servants; public service; management; professional training; computer technologies.

1 Introduction

At the end of the 20th and beginning of the 21st century, the volume and complexity of tasks that government bodies have to solve have increased significantly. As a result, a crisis arose, generated by the failure of the bureaucratic system. In addition, there has been a de-professionalization of the civil service to some extent: enterprising-minded professionals are leaving for commercial structures, and their place is often taken by random people who have not previously had anything to do with the civil service. Hence the need arises to train a new generation of specialists who understand the most important principles and methods of managing economic, social, political, and other processes.

The information society, to which many countries of the world are already moving today, has two important characteristics: firstly, a change in management processes due to the ability to use complex information and communication systems, as a result of the transformation of new "intelligent technology" into a key tool for system analysis and adoption theory solutions, secondly, the widespread use of developed technologies of information interaction in the mechanisms of organization and selforganization of society. This entails a revision of approaches to the organization of effective administrative management and organization related to the readiness of organizational structures for innovation, the use of intellectual technologies in official activities, as well as technologies for partnership interaction with social structures.

The development of the civil service and the training of qualified personnel for it are organically interconnected. Modern Ukrainian society needs talented statesmen with a special type of professional consciousness, focused in their activities on a real person and his life problems, focused on mastering productive forms and methods of working with people. This is accessible to people who are comprehensively educated, well-oriented in matters of human knowledge, and have high spiritual values and moral qualities. In this regard, the logic and technology of professional education and development of civil servants acquire great importance. Updating its content and structure focuses on a fundamentally different teaching methodology: technologization of human knowledge, mastering the mechanisms of influencing people's consciousness, mastering specific technologies of professional activity [2; 3]. A holistic system for the development of professionalism of civil servants must take into account the fundamental stages of changes in the life of society, and be correlated in its content and practical implementation with the structure, functions, and specifics of the activities of civil servants. At the same time, there is a need to update and enrich training programs with innovative interactive technologies that increase the efficiency of mastering theoretical material, developing practical skills, abilities, developing intellectual abilities and social qualities of the personality of a future specialist.

In modern conditions of development of Ukrainian society, the activities of civil servants represent a multidimensional phenomenon, manifested in two constantly interacting dimensions - objective and subjective. It can be considered both as a science and as an art of managing relationships, implementing interests, as well as conquering, using power and pursuing the line of a subject of activity, which at the same time acts as a "calling" and "profession". As a historically established type of social activity, the activities of civil servants are not a "frozen" formation and are subject to contradictions and changes. The subject of activity of civil servants is the life support of people, possession of state power, participation in its implementation, determination of prospects and directions of social development, management of socio-economic processes.

The activities of civil servants are divided into theoretical and practical. Being relatively independent, they are interdependent: the theory becomes effective and efficient when it is based on the practical experience of people and coincides with their true needs and interests. While basic definitions corresponding to any forms of human spiritual activity - cognitive, prognostic, value-oriented - are sufficient to characterize the theoretical activities of civil servants, the practical activities of civil servants are characterized by an extensive list of features reflecting its specificity.

State and municipal management requires the training of specialists with systems thinking, economic knowledge, managerial and legal culture, psychological stability, the ability to work in crisis, extreme situations, characterized by a concentration on increasingly new opportunities, and a desire for continuous professional development. The knowledge and skills of civil servants required for modern governance are not isolated to one area, but are universally needed to influence public policy and implementation in a global society. That is why it is important that civil servants have fundamental knowledge in a wide range of new areas of knowledge (digitalization, modern management methods, leadership, etc.). Gaining leadership and management experience is important for every employee. Civil servants often do not have enough information and knowledge to respond to a specific situation, so training is vital for civil servants in such circumstances. In particular, public servants should be capable of speaking 'common language' with business. Donahue and Zeckhauser [10] emphasize that "private engagement in public missions - rightly structured and skillfully managed - is not so much an alternative to government as the way smart government ought to operate. The key is to carefully and strategically grant discretion to private entities, whether forprofit or nonprofit, in ways that simultaneously motivate and empower them to create public value".

The reorientation of executive power to manage more complex social processes and various objects of the socio-economic and cultural sphere places higher demands on the professional training of state and municipal employees [1; 8]. Multi-level training of specialists in state and municipal administration, proper use of human resources in this area, and the formation of a modern, highly effective state and municipal service are now considered one of the priority national tasks. Its solving determines whether the economic, political, and socio-cultural reform of Ukraine will take place in the process of European integration, its establishment as a truly democratic European state governed by the rule of law.

2 Materials and Methods

The methodological basis of the study is the dialectical method, which allows taking into account the numerous relationships and interdependencies of the phenomena under consideration, and objectively assessing the need for professionalization of civil servants as a condition for increasing the efficiency of the public service. The basic methodology of the article was the general theory of systems within the framework of the analysis of systems of social nature from the perspective of the category "social management", which makes it possible to identify the modern general system of social management. Also, the methodological basis of the study was the theory of selforganizing systems, principles of consistency, methodological pluralism, philosophical concept of the information society, elements of andragogy theory.

3 Results and Discussion

Professional development of a civil servant is the purpose, meaning, and value of his professional culture as a personality and as a specific specialist; it is a complex, contradictory, and multifaceted process consisting of personal, professional and expert development, determined, as a rule, by social, professional-technological, age-related, personal, leading individual-psychological, professionally important and expert qualities and traits, has an open, uneven and heterochronic character. It represents the result of a constant search for an answer to the essence of contradictions (external and internal personal) that constantly arise in professional activity, and the specialist's efforts to solve or remove them; it is a necessary condition for the successful professional activity of a specialist, a necessary condition for personal and professional selfactualization of a future civil servant in professional activity [21; 35; 58].

Meanwhile, there are many gaps in the modern system of professional training of civil servants of Ukraine. The general disadvantages of this system are as follows:

- Firstly, lack of competition between state and non-state educational institutions for the right to receive a state order for professional training and advanced training of civil servants;
- Secondly, complete subordination of educational institutions to their customers, which constrains the initiative of educational institutions;
- Thirdly, the widespread and not always justified involvement of civil servants who do not have scientific degrees to participate in educational programs as teachers;
- Fourth, the disconnection of the system of advanced professional education of employees from practice and from the general education system provided by the Ministry of Education and Science of Ukraine. This gives rise to insufficient coordination with the general educational standards of teaching general humanitarian disciplines, which excessively reduces the quality of training;
- Fifthly, problems regarding the quality of the development of the legal framework for professional training, retraining and advanced training of civil servants: the fragmentation of regulation and the legal uncertainty of many concepts of the professional development of civil servants (for example, in the issue what kind of education is required for civil servants of a certain rank and holding a certain position);
- Sixth, lack of systemic formation and development of the educational system, with the help of which professional training and retraining of civil service personnel should be carried out.

The civil service reform in Ukraine was launched at the end of 2015. In 2015, the Verkhovna Rada adopted a new law on civil service. One of the transformations that should take place in this area is a change in the system of motivating civil servants to professional development and training. Civil servants must periodically undergo advanced training courses. However, the

range of courses, forms of training and providers of such services was limited.

By Resolution No. 106 of February 6, 2019, the Cabinet of Ministers changed the system of professional training of civil servants and representatives of other central and local authorities [60; 61]. It is based on the European Credit Transfer and Accumulation System (ECTS). The credits of such a system will be the units of measurement of the volume of the educational load. The volume of one ECTS credit is 30 hours.

However, it is obvious that the reforms will not bring the desired result without the introduction of innovative training programs for civil servants. When determining the conceptual foundations of the development of professional training of civil servants, it is impossible to limit oneself only to the solution of current issues [65]. The main factor in improving the system of their training is the use of competencies to determine needs and conduct training activities that correspond to the individual's ability to perform various tasks.

O. Khrushch [25, p. 77] notes that with regard to the quality of education, as practice shows, it is not enough for civil servants to get an education in the field of public administration and law. The complex of knowledge that was obtained in an educational institution five or ten years ago is not enough to make rational and constructive decisions in the future. In this regard, in the legislation regulating the field of professional development of employees and the activities of state bodies, considerable attention is paid to the issue of specialized systematic training of employees. However, graduates of recent years also do not possess the entire set of necessary competencies. In today's turbulent social and political environment, they are often unable to adequately assess all factors of the situation and make the optimal decision. In this context, it is advisable to consider the experience of countries with the most effective public administration systems.

Currently in Great Britain, according to some data, about 25% of government officials are specialists in various fields of law, economics, and science. The demand for such personnel is constantly growing: they make up about 60% of government officials. But in general, the so-called "generalists", i.e., professional managers, predominate in the state apparatus - they number about 75% [28]. The UK experience allows emphasizing that the content of curricula should be correlated with the goals of current policy; it is advisable to create a system of indicators for the continuous assessment of the competence of civil servants based on clearly developed criteria and the obligation to constantly improve the level of professionalism; it is important to create and develop a wide network of specialized courses and seminars that meet the needs of dynamically developing public policy [28].

In Germany, where civil servants include not only government officials, but also teachers, university professors, bank employees, and other categories of citizens, they are required to have a certain level of professional education and preliminary training, the type and duration of which is differentiated depending on the level of service provisions [63: 64]. Continuous education is a mandatory condition for advancement in the civil service in Germany. Therefore, a wide range of training programs accompanies the official throughout his career. Germany has long been a trendsetter in the development of public administration as an academic discipline with an emphasis on the legal component. However, at present, German universities are establishing a tradition of training specialists on the basis of an interdisciplinary approach, a balanced version of curricula, where great importance is attached to the study of economic disciplines [9].

In France and the USA, a unified network of specialized institutions for training and advanced training of officials is widely developed [51; 53]. The most famous and frequently visited of them are: the National School of Administration or the School of Public Administration (Ecole nationale d'Administration) (it is training directly civil servants of the

highest categories and groups of positions), Center for Leadership Development (developing key qualifications of managers for at any stage of career), National Center for Distance Learning (CNED) (the center's activities are aimed at saving time resources; it serves to popularize the practical experience of the center at the international level and takes an active part in European programs (experience exchange): online seminars, electronic lectures, advanced training programs, modules, mini-MBA) [14].

The special social significance and specificity of the activity to ensure the execution of state functions and powers of state bodies is such that its performers can be united into a special social group - the profession of "civil servant" with its own system of professional socialization (including vocational training), a special professional culture.

Modern times require new staffing and increased professionalism of civil service personnel [48; 49]. In the context of the development of Ukrainian statehood and the European integration processes of statehood and civil society institutions, an updated system for training public management personnel is needed, more responsive to new social challenges and institutional reforms being carried out in Ukraine.

The training of managers should be based on the use of the latest forms, methods, and technologies of training. The civil service is in dire need of a comprehensive development of a system of professional education for its employees [4-7]. Its organization is the most important task for the public administration system of modern Ukraine: after all, the effectiveness of the activities of government bodies directly depends on the level of professionalism of employees.

Back in the early 1980s, research emerged that relied on the activity-based approach to learning. These include the works of D.A. Kolb et al. (Kolb, Boyatzis, Mainemelis, 1984), B. McCarthy (2010), and others who developed the theory of experimental learning (learning by experience). Thus, Kolb's four-stage cyclic learning theory or experiential learning theory combines experience, perception, cognition, and behavior change (Kolb, 1984) and consists of four stages [54-57]. The first is Concrete Experience (CE) - training aimed at acquiring first-hand experience or new experience, during which the ability to perceive new things appears. The second stage is Reflective Observation (RO) - turning to experience, consciously reflecting on its results, in the process of which the ability to reflect and interpret existing knowledge and experience develops [11-13]. The third stage is Abstract Conceptualization (AC) summing up the results of the work, an attempt to conceptualize experience, propose a hypothesis or theory, or form a model of action, rules for making decisions in similar situations. At this stage, the following skill are developed: the skill of accumulating received information and adding new information; the skill to think systematically and holistically, purposefully and logically; the skill to generate ideas, identify contradictions and build relationships; the skill to formulate concepts, theories, models that describe the structure and operating processes of the object being studied [41-46]. The fourth stage is Active Experimentation (AE) - testing a theory or model in practice, planning upcoming experiences, changing the rules of behavior. This leads to the formation of the ability to draw conclusions based on theoretical knowledge, solve practical problems, test models for applicability in practice, and develop new experience. D. Kolb's training cycle has found application in training systems, as written by B. McCarthy (2010) and other authors. For example, McCarthy proposed an additional tool - 4MAT (from the word "matter") - a system of questions for going through the four stages of the Kolb cycle, taking into account the learning styles he identified and the use of D. McClelland's model to motivate training participants [50].

In particular, understanding the theoretical and methodological foundations of training is of fundamental importance when using gaming technologies in the process of training personnel in state and municipal services. These technologies are aimed at maximum assimilation of theoretical material by students, practical testing of methodological tools and step-by-step involvement of the entire audience in the learning process, regardless of individual learning style [15-18]. They are able to maximize the effectiveness of educational activities of the academic type, quasi-professional, educational-professional and professional.

A comparative analysis of competencies formed by gaming technologies showed that business games are the most effective [62]. They are the ones which make it possible to iplement professional competencies in the field of state and municipal management in a whole set of activities: administrative and technological, design and research. It should be noted that the process of developing professional competencies through business games among future leaders in the field of state and municipal management includes, first of all, a research and design component [19; 20]. The situations simulated in the business game assume:

- Development of research competencies in students based on a theoretical study of trends in state and municipal management as a scientific direction; developing awareness of paradigms and subject fields that relate to modern theoretical models; familiarization with analytical tools;
- Formation of project competencies based on mastery of tools for analyzing the practice of state and municipal management, models for posing problems and their solutions, and generalizing best practices.

The tools of modern management processes - New Public Management and Good Governance - continue to be improved [23; 24]. It can be successfully recreated when simulating a real situation in the form of virtual business games, in particular such as: a cooperation game (reaching an agreement on the implementation of a project on the terms of a public-private partnership in the municipality), a competition game (developing alternative strategies in one of the aspects development of a municipality), a conflict game (based on modeling the situation of locating an environmentally hazardous enterprise on the territory of a municipality), etc. [35]. Knowledge of analytical tools allows students, within the framework of business games, to model the organizational structures of executive authorities on a new qualitative basis, to improve administrative processes, personnel management technologies, to develop skills in interaction between government bodies and civil society institutions and the population, to gain skills in assessing regulatory impact, using tools for anti-crisis management of a municipal formation.

It is fundamentally important that the business game is based on real managerial, social, and economic situations, and that the selected tools correspond to current trends in scientific research and best practices in state and municipal management.

When modeling business games, the characteristics of research problems, the choice of research object and analytical tools for assessing the situation and making decisions by business game participants and experts are of great importance. As the experience of using various forms of gaming technologies for training civil servants in Western Europe and the USA shows, they make it possible to develop the following professional competencies (see Table 1 below) [22].

Table 1: Professional competencies of graduates studying in the field of study "State and Municipal Management", formed through the use of business games

Types of	Characteristics of	Professional competencies
gaming	the type of gaming	formed through this type of
technologies	technology	gaming technology
Didactic games	Strictly regulated and do not imply the development of a logical chain to solve the problem	Administrative and technological activities: – mastery of modern methods of diagnosis, analysis, and soving of socio-economic problems – ability to critically use

	1	information and
		information and constructively make decisions based on analysis and synthesis
Case technologi es Computer games	Analyzing simulated or real situations and finding a solution. <i>Approaches to</i> <i>compiling cases</i> : 1) American school: involves searching for the only correct solution to a given problem; 2) European school: emphasizes the versatility of decisions and their justification Analysis of simulated or real situations and search for optimal solutions using computer technology	Administrative and technological activities: – – ability to critically use information information and constructively make decisions based on analysis and adsynthesis. Project activities: – ability to use knowledge of methods and theories of the humanities, social and economic sciences when carrying out expert and analytical work Administrative and echnological activities: – – ability to critically use information and constructively make decisions based on analysis and synthesis Research and teaching activities: – – possession of methods and
Basket method	Imitation of situation	tools that contribute to the intensification of cognitive activity Administrative and technological activities: - mastery of modern methods of diagnosis,
Business games	Modeling of professional	Administrative and technological activities: – – knowledge of modern methods of diagnosis, analysis and solution of socio-economic problems, as well as methods of decision- making and their implementation in practice; – – ability to critically use information and constructively make decisions based on analysis and synthesis <i>Project activities</i> : – – the ability to systematize and summarize information,
	activities in the field of state and municipal management, reconstruction of problem situations and interaction of players as a condition for making agreed decisions	 prepare proposals for improving the system of state and municipal government; the ability to put forward innovative ideas and nonstandard approaches to their implementation; the ability to use knowledge of methods and theories of the humanities, social and economic sciences when carrying out expert and analytical work <i>Research and teaching activities</i>: possession of methods and specialized tools for analytical work and scientific research; mastery of methods for analyzing the economy of the public sector, macroeconomic approaches to explaining the functions and activities of the state

During the business game, it is necessary to implement certain organizational, psychological, and pedagogical principles, namely: simulation modeling of the content of professional activities in the field of state and municipal management; recreating problem situations typical for a given professional activity; interaction of players as a condition for making agreed decisions; two-dimensionality of the game [36-39]. Moreover, during the business game, it is desirable to formalize the problem by constructing an economic and mathematical model (if this is possible in accordance with the conditions of the business game). Students can be asked to choose the optimal one from a variety of acceptable solutions - one that corresponds to the logic of common sense, taking into account the restrictions imposed by the game situation (budgetary, legal, resource, etc.), as well as established efficiency criteria (social, economic, budgetary, etc.) [26; 27]. These criteria reflect the degree of compliance of the results of solving the set goal and at the same time are a means of assessing the correctness of the measures proposed by students.

At the present stage, a special place in the development of professional competencies among students in the field of study "State and Municipal Management" is occupied by information and methodological support, methods and models for optimizing management decisions that students use within the framework of a business game, as well as the information technologies they use. During the business game, it is desirable to formalize the problem by constructing an economic and mathematical model (if this is possible in accordance with the conditions of the business game) [29-31]. Students can be asked to choose the optimal one from a variety of acceptable solutions - one that corresponds to the logic of common sense, taking into account the restrictions imposed by the game situation (budgetary, legal, resource, etc.), as well as established efficiency criteria (social, economic, budgetary, etc.). These criteria reflect the degree of compliance of the results of solving the set goal and at the same time are a means of assessing the correctness of the measures proposed by students.

It is fundamentally important that the business game is based on real managerial, social and economic situations, and that the selected tools correspond to current trends in scientific research and best practices in public administration [32-34]. An example of a business game could be "Comprehensive investment plan for the socio-economic development of a monofunctional smart city", with the goal of the game being to train students in diagnostic methods and technologies for comprehensive investment planning for the socio-economic development of a monofunctional city to develop measures that contribute to its transition from critical to stable condition.

One should note the large-scale introduction of new technologies in the field of public administration. In particular, the practice of public administration in the most developed countries is already demonstrating pilot projects for adapting augmented reality technologies to the goals and objectives of managing a modern state [52]:

There is professional training and education for civil servants using AR technologies, aimed at optimizing financial costs and standardizing educational AR products. Thus, in the United States, more than 2.1 million people work in the structure of executive bodies of government and government from local to federal levels. Training this vast number of employees for their multiple job responsibilities is one of the most costly and timeconsuming tasks in the public sector [40]. AR applications, training programs and simulators provide AR access to information materials and virtual models of material infrastructure objects, for example, buildings and structures, industrial equipment, etc. Interactive training with AR support will allow students to virtually simulate scenarios for the development of various situations and problem solving, that they may encounter in the workplace.

Today reality requires skillful combination of traditional and technology-based learning in the sphere of public servants training (see Figure 1 below).



Figure 1. Combination of conventional and technology-driven learning [59]

The use of digital platforms in training, AR, VR, and computer games should be combined with effective "offline" methods - case studies, business games, etc.

Modern conditions dictate new requirements for managers and specialists involved in the system of public authority. A civil servant, official, government representative, firstly, must be able to think systematically. Secondly, he must be aware of the "rules of the game", that is, understand and analyze the significance and cause-and-effect relationships of professional decisions, his place in the public administration system and the patterns of functioning of the system itself [10; 47]. And finally, a civil servant must possess work skills, that is, those unique professional competencies that are developed only in the process of practical real actions. Virtual computer educational simulators allow to painlessly, that is, without real mistakes and negative results, train professional competencies necessary in the work of government agencies.

Augmented reality at first glance may not seem as universal as virtual reality, but it can bring more tangible benefits in the field of public administration, including in the process of training future civil servants, associated with the circulation of not only data, but also the transformation of material reality. The potential for its practical application is related to the fact that it can extrapolate elements of the virtual world of data to the real world of material objects, supplementing these objects with digital "add-ons" or "markers" that we are able to see, hear or even feel using mobile devices. The main motive for the introduction of augmented reality technologies in the field of public administration is the need to visualize increasingly complex and diverse secondary information - a world of large volumes of data, formed on the basis of the collection and statistical analysis of primary data, in order to make more effective management decisions. Achieving this goal involves solving a number of particular tasks, such as collecting primary information, its classification and storage, distribution between the structural divisions of the government body and its employees, preparation for processing, transformation, presentation in visualized form, providing direct and feedback links both with executors of government decisions and with consumers of government services.

The very possibility of layering a virtual projection onto the real world will allow making the work of a civil servant faster and more efficient, teaching him safe ways to work with information through individualized and interactive training, modeling dangerous situations and solving cases, and reducing the cost of training civil servants.

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