

PROBLEMS OF MANAGING THE DEVELOPMENT OF THE DIGITAL COMPETENCE OF HEADS OF GENERAL SECONDARY EDUCATION INSTITUTIONS OF UKRAINE

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Abstract: *The article analyzes the problems of development of digital competence of heads of general secondary education institutions of Ukraine.*

It has been established that serious changes have taken place in modern education and the role of the head of a general secondary education institution has changed significantly, the degree of his freedom and, at the same time, the level of responsibility has increased.

Therefore, now one of the urgent problems is the problem of preparing the heads of general secondary education institutions for the use of Internet services in management activities, the formation of their readiness to study and use modern Internet technologies, to the formation of digital competencies.

A definitive analysis of the categories "management", "development" is carried out and a holistic analysis of the philosophical, psychological, pedagogical, scientific and methodological literature and regulatory framework is made in order to determine, critically reflect and generalize the views of scientists and management subjects of various levels on the essence of the development management process digital competence of heads of institutions of general secondary education of Ukraine.

Keywords: *ICT, management, development, digital competence, heads of general secondary education institutions, digital technologies.*

ACM Classification Keywords: *digital competence*

Introduction

The modern system of general secondary education in Ukraine has undergone serious changes. Institutions of general secondary education have received a new state order; they must become more independent in the development of educational programs, in the choice of forms and methods of organizing the educational process, and in spending money. In this regard, the role of the head of a general secondary education institution changes significantly, the degree of his freedom and, at the same time, the level of responsibility increases. This can be traced in modern regulations and the concept of the New Ukrainian School (hereinafter - NUS).

It is proposed to take into account that the rapid spread of "digital" technologies makes digital skills (competencies) of the citizens key among other skills. The Digital Agenda offers a comprehensive list of digital competencies that a modern manager should possess, including the head of a general education institution.

Given the fact that the goal of introducing IT technologies into the school management process is to improve the quality and efficiency of management decisions and the transition to paperless technology, the problem of managing the development of digital competencies for school leaders is gaining a nationwide scale.

This goal can only be achieved if schools are properly equipped with computers and free access to electronic resources. Thus, the managerial activity of a modern school leader is becoming more and more intellectual and scientific.

Problem statement

Today, heads of institutions of general secondary education must use IT technologies in the preparation of reports, the formation of databases of students and pedagogical workers, in office work, work with regulatory

documents, the organization of educational and methodological work and contractual activities.

Based on the generalization of scientific knowledge and world experience in managing the development of digital competencies at the level of general education secondary educational institutions, the process of organizing the technological process is considered as a factor in improving the management digital activity of educational leaders. Technologization is primarily due to the fact that today huge masses of people are involved in the education process, who in a limited time must receive a fairly large amount of theoretical and practical knowledge, various kinds of information. On the other hand, school principals objectively face the need to repeatedly interact with teachers, parents, and students within the framework of typological situations using repetitive operations, actions and procedures in a certain sequence (algorithm).

The development of learning technologies that provide conditions for the full development of the individual at different levels of the lifelong education system is possible only through updating the pedagogical foundations of the educational process, all its elements, which ultimately leads to the formation of various professional competencies of education managers. In the light of the study, the technologization of managing the development of digital competence of heads of general secondary education institutions is designed to ensure the integrity of this development by organizing a continuous learning process.

The possibility of innovation and technologization, and then digital transformation of the process of professional self-improvement of school principals in the direction of enriching digital competencies, can be provided by various groups of modern pedagogical technologies:

firstly, information and communication technologies (ICT) for universal purposes, such as office programs, graphic editors, Internet browsers, telecommunication tools, augmented reality, and the like;

secondly, pedagogical technologies (learning technologies), including those involving the use of ICT or based on their use;

third, specialized digital educational technologies (edtech), such as virtual mentors; simulators; educational game quests in augmented reality; game environments and sensorium; Smart tutorials - smart sandbox, smart board, and the like;

fourthly, production technologies (digital, material and social, or humanitarian), ensuring the enrichment of professional digital knowledge, skills and abilities of school principals.

A detailed analysis of scientific, vocabulary, encyclopedic literature made it possible to summarize that the basis of the category "management of the development of digital competence of heads of general secondary education institutions" is the terms "management", "development", "development management". "Digital Competence" (head of the SEO). Thus, we believe that the management of the development of the studied phenomenon among school principals is a continuous sequential influence on the part of the subjects of management, as a result of which the formation, change, systematization, regulation of the declared integral quality of the leader's personality occurs and is reflected in his (her) attitude to the use of ICT in professional activity. , in his (her) behavior in the context of digitalization of the educational process.

Since 2013, European scientific communities and practitioners have developed and presented in 2016 - 2017 European Digital Competence Framework for Citizens (DigComp). This conceptual reference model is structured in 5 dimensions that define the following areas: information and data skills, communication and collaboration, digital content creation, security. The designated model serves as the basis for organizing the process of developing the digital competence of teachers and heads of educational institutions. In the last 3-4 decades, the process of digital transformation has also been observed in the field of Ukrainian education.

Based on the generalization of scientific knowledge and world experience in managing the development of digital competencies at the level of educational institutions, the process of organizing technologies is considered as a factor in improving the management digital activities of educational leaders.

An analysis of scientific sources shows that researchers are studying the context, complexity and creativity of a competence-oriented professional postgraduate education [K. Oleinik], a conceptual and terminological excursion is carried out to concretize the essence of such concepts as “competence”, which have been used in pedagogy since the 1980s. [Kravchenko; Flint]) determines what is acceptable and what is problematic for higher education in Ukraine [Bugrov].

First of all, we note that competence-based education (CBE) was formed in the 60s and 70s in the United States. In the study of I. Zimnyaya, attention is drawn to the fact that the concept of “competence” was first used in 1965 by N. Chomsky (University of Massachusetts) in relation to the theory of language, transformational grammar in the understanding of the “system of generating processes”. The author draws attention to the fundamental difference between competence (as knowledge) and use (real application of this knowledge in specific situations), noting that in the idealized case, use is a direct reflection of competence. It is “use” that is an actual manifestation of competence as “secret”, potential, which is actually connected with thinking, with skills, that is, with the experience of the person himself [Zimnaya].

At the same time, in the work of Elliot, A. J., & Dweck, C. S. (2005). *“Competence and Motivation: Competence as the Core of Achievement Motivation.”* the category of competence is meaningfully filled with personal components, including motivation. Thus, in the 60s of the last century, a modern understanding of the differences between the concepts of “competence” and “competence” was laid, where the latter is interpreted as an intellectually and personally conditioned experience of a person's social and professional life based on knowledge.

The UNESCO materials outline a range of competencies that should already be considered as the desired outcome of education. The study by I. Zimnyaya notes that the international commission on education for the XXI century. formulated "four pillars" on which education is based: "learn to know, learn to do, learn to live together, learn to live", essentially defines the main global

competences. In the program of the Council of Europe (Bern, 1996), the question is raised that for educational reforms it is essential to define the key competencies that students are called upon to acquire both for higher education and for successful future work.

In the summary report, V. Hutmacher noted that the concept of competence, which is part of a number of concepts such as skills, competence, ability, skill, etc., still does not have a clear definition. Nevertheless, all researchers agree that the concept of "competence" is closer to the concept of "know how" than to the concept of "know what." Following N. Chomsky, V. Hutmakher emphasizes that "use is competence in action", and gives the definition of five key competences adopted by the Council of Europe that "armed young Europeans should be".

In the broad context of an understandable interpretation of competence, A. Khutorskoye uses the term "educational competencies", which are determined by the personality-activity approach to education, since they relate exclusively to the student's personality and turn out to be, and are also checked in the process of fulfilling a complex action. The author explains the understanding of the concepts of competence as follows. Competence (from Latin - *competentia*) means a range of issues in which a person is well aware, includes a set of interrelated personality traits (knowledge, abilities, skills, methods of action, experience, abilities) for effective activity in certain areas. A. Khutorskoye understands by competence a certain alienated, predetermined requirement for a person's educational training. And competence includes a person's personal attitude to the subject of activity; it is a personal quality (characteristic) that appeared in the learning process.

That is, competence is a specialist's possession of the relevant competence, encompasses his personal attitude towards it and the subject of activity [Khutorskoy, p. fourteen]. Drawing conclusions, we can assume that the digital competence of heads of secondary general education institutions consists of a set of competencies, reflected in the ability to:

1. information management, which covers knowledge, skills and abilities to search for the necessary data, analyze it and use it in accordance with the goals of the teacher's pedagogical activity;
2. collaboration, covering the knowledge, skills and abilities necessary for the participation of teachers in online communities and their interaction with other users on the Internet;
3. communication, which covers the knowledge, skills and abilities of teachers to communicate using online tools, taking into account confidentiality and security;
4. creation of content and knowledge, covering the knowledge, skills and abilities of a person for creative activity and the creation of new knowledge through the use of ICT and prior knowledge and content that are disseminated using Internet services;
5. ethics and responsibility, which covers the knowledge, skills and personality traits of a person for proper behavior on the Internet;
6. evaluation and Problem-solving, which is manifested in the appropriate selection of ICT self-assessment and assessment of knowledge, skills and abilities in various academic disciplines and for solving the problems of processing assessment results using ICT and providing appropriate advice; technical efficiency (or Technical Operation), covering the knowledge, skills and abilities of the individual necessary for the effective, safe and correct use of ICT in their professional and educational activities.

The development of learning technologies that provide conditions for the full development of the individual at different levels of the lifelong education system is possible only through updating the pedagogical foundations of the educational process, all its elements, which ultimately leads to the formation of various professional competencies of education managers. In the light of the study, the technologization of managing the development of digital competence

of heads of general secondary education institutions is designed to ensure the integrity of this development by organizing a continuous learning process.

Algorithm

The information society needs specialists with special qualifications; it needs managers - people who are able to independently design and manage structures, people who can learn, independently work with information - only they can count on success in the information society. That is why it is necessary to prepare all members of society for life and professional activity in a highly developed information and communication environment.

Now the information and communication environment is understood as a set of conditions that ensure the implementation of the user's activities with the information resource, as well as information interaction with other users using interactive means of information and communication technologies interacting with him as a subject of information communication and a person.

In such conditions, the heads of institutions of general secondary education, who have knowledge in the field of new educational technologies, need to constantly demonstrate their skills and have a professional environment for operational interaction. This requires a comprehensive solution to such issues as:

- continuous professional development of heads of general secondary education institutions in the use of digital technologies in daily and professional activities;
- software and hardware updating and maintenance of the functioning of equipment and information resources of schools, providing access to the Internet;
- information and methodical support of the professional activities of heads of institutions of general secondary education using ICT.

These tasks can be successfully solved within the framework of the system of methodical work of institutions of general secondary education, which can be defined as an integral set of measures, actions, resources, as well as management processes and actions that:

- aimed at assisting the heads of general secondary education institutions in identifying professional difficulties and identifying problems in the use of ICT tools and methods in the process of continuous professional pedagogical education with the aim of their own professional and personal development;
- contribute to the presentation of an educational request and the design on its basis of educational programs for advanced training in the field of effective use of ICT tools by managers in their professional activities;
- focused on systematic diagnostics of the state of digital competence formation for heads of general secondary education institutions, on advising them on the use of ICT tools and methods in professional activity, on the examination of the results and products of professional activity based on ICT;
- are developed in the course of joint activities by all subjects of the methodical service of institutions of general secondary education;
- use the potential of distance learning technologies, taking into account its specifics.

The exponential development of ICT in recent years requires a revision of the entire structure and content of the development of digital competence for heads of general secondary education institutions. ICT application training cannot simply follow the improvement of technology; in the current learning environment, it must be forward-looking. It is necessary that the specialist is ready to use those ICTs that will become widespread in the near future.

Today, it is in the field of education that network technologies, multimedia technologies, and distributed data processing technologies can be successfully applied. In addition, right now, due to the simplification of the user interface, it

has become possible for managers to learn such issues as the development of multimedia applications for educational purposes, information interactions in local and global networks.

It is obvious that the improvement of the development of digital competence of heads of general secondary education institutions should be focused on the advanced training of the director, who is able to ensure the progressive use of ICT in education. Based on the foregoing, it can be argued that outstripping the development of digital competence of heads of general secondary education institutions will allow achieving the following educational goals:

- stimulate the use of the capabilities of modern ICT tools to improve the effectiveness of training;
- to contribute to the formation of experience in the rational distribution of computer functions in the educational space;
- to determine the optimal ratio of new pedagogical technologies and traditional teaching methods;
- to promote the implementation in the educational process of a student-centered approach to learning;
- to stimulate the development and implementation of methods for conducting classes of any kind using all the capabilities of ICT.

The main methods of developing digital competence for heads of general secondary education institutions and their advantages.

Let us consider in detail the methods used in the development of digital competence of heads of general secondary education institutions.

Explanation story - a complex method that combines the presentation of educational material with detailed explanations, comparisons, justifications, conclusions and reliance on the professional experience of leaders. It is advisable to provide computer support for the lessons in demo mode.

Lecture - a methodologist for a relatively long time orally expounds a significant amount of educational material, using the techniques of enhancing the cognitive activity of heads of general secondary education institutions. The methodologist, as a rule, prepares in advance the corresponding computer presentation, which contains various information objects: photographs, diagrams, diagrams, video clips, animations. This allows not only to activate the attention of listeners, to lay out new material in a better quality, but also contributes to the immersion of school principals in the educational information and communication environment.

Conversation - using the questions posed, the methodologist encourages the heads of institutions of general secondary education to reason, analyze the facts and phenomena under study in a certain logical sequence and independently approach the corresponding theoretical conclusions and generalizations. When conducting a conversation, it is necessary to maintain a logical plan, questions and answers should reflect the sequence of the development of the topic.

Practical work with information sources (texts on paper, electronic publications for educational purposes, implementing the capabilities of multimedia technology, work in the Internet / Internet technologies, etc.) and with instrumental software (for example, for creating presentations).

The mastery of new knowledge is carried out independently by each head of a general secondary education institution by studying the material presented on paper or electronic media, and comprehending facts, examples, theoretical generalizations, while simultaneously with the assimilation of knowledge, school principals acquire the skills of information activity and information interaction, automation of educational methodical activities based on ICT tools.

Method of exercises, training (reproductive exercises) - the heads of institutions of general secondary education perform multiple actions, i.e. train (exercise) in the application of the learned material in practice and in this way deepen their knowledge, develop the appropriate skills.

Research laboratory work - heads of institutions of general secondary education under the guidance of a methodologist and, according to a pre-prepared plan, perform experiments or perform certain practical tasks aimed at developing thability to carry out:

- automation of computing and information retrieval activities;
- organization of management research using ICT tools, etc.

In the process of this activity, the heads of institutions of general secondary education master the technological methods of working with ICT tools and other technical means related to ICT tools.

Independent work - the activity of the heads of institutions of general secondary education, is carried out without the direct participation of the methodologist, but on his instructions at a time specially provided for this.

Creative exercises - heads of institutions of general secondary education use knowledge and skills in various combinations, independently find an original solution to the assigned tasks. It is the successful application of this method that allows us to say that in the course of coursework, school principals develop not only knowledge, skills and abilities, but also some competence in the area under study.

Thus, the proposed management methods for the development of digital competence of heads of institutions of general secondary education provide the following advantages:

- the combination of pedagogical (to transfer the minimum, but necessary amount of new knowledge and practical skills) and andragogical (to ensure the improvement of digital competence) teaching models ensures the effective implementation of the development of awareness of school principals in the field of means and methods of using ICT in professional activities;

- the development of professional educational activity allows planning effective professional development of school teachers in the field of formation and development of digital competence;
- person-centered learning stimulates the creation of conditions for the professional development of heads of institutions of general secondary education, its individual and collective - information activities based on ICT tools and methods;
- the continuity of the formation of digital competence through regular information and educational and methodical support during the development of digital competence of heads of general secondary education institutions creates conditions for qualitative changes in the professional activities of school principals through the use of new information resources and educational services.

We consider it expedient to carry out a detailed analysis of current trends in the development of digital competence of heads of general secondary education institutions as a requirement for the implementation of modern educational reforms in the context of international experience.

Currently, Ukraine is at the stage of gradual transition to the information stage of development associated with the active introduction of digital, information and communication technologies in all spheres of life, which requires constant updating of knowledge and skills necessary for successful mastery of these technologies. The use of information technology allows to realize the goals and objectives of ensuring the modern quality of education, directly related to the implementation of the competency approach.

The process of introduction of digital, information and communication technologies in the field of education determines new requirements for the training of heads of general secondary education institutions. The new generation of teachers must have integrated knowledge in the field of digital and information technologies, telecommunications, the ability to navigate freely in the global flow of information, competently find and process the necessary data and then make management decisions based on them.

However, despite the general acceleration of the process of informatization of education, now the heads of general secondary education note the lack of university training to solve professional problems related to the use of computers and lack of skills in creative use of digital technologies to solve non-standard management tasks. Nowadays, digital technologies create new opportunities for building the educational process and solving a wide range of educational problems, in particular those that have not yet been solved by means of traditional education, and fundamentally new ones. Example:

- the use of artificial intelligence is the basis for: services that provide the design of individual educational routes and the organization of training according to the individual curriculum of children with special educational needs; adaptive learning systems that automatically adjust to individual learning strategies and other features of a particular student; self-educational electronic courses;
- virtual reality technologies allow to design digital and screen (visual, including spatial) models of objects, providing: creation of motivating game and realistic entourage at stages of development, fixing and control of educational material; opportunities for studying invisible, micro- and macro-objects and virtual experimentation with them; formation of skills and competencies for work in dangerous industries, in extreme situations;
- the use of digital duplicate, digital footprint and Big Data technologies allows to create a system of personalization of monitoring of learning success and dynamics of student development;
- chat-bot technology is increasingly used to provide prompt meaningful feedback to students receiving secondary education in the process of distance learning;
- the use of augmented reality technologies ensures the implementation of a set of principles of digital didactics (practical orientation, interactivity, polymodality) in the process of forming professional skills and abilities in the real production process;

- technologies of electronic identification and authentication (face, voice recognition) can be used to verify the participants of the educational process during the demonstration exam online;
- blockchain technology is needed to build a single information educational environment in educational networks, to ensure the effective implementation of networked educational programs and projects;
- digital technologies for specialized educational purposes - edtech (educational technologies), usually use one or more of the above digital technologies.

Various information and digital innovations are being introduced into the organization and content of the educational process of general secondary education institutions. Modern digital educational resources are a means of learning and serve as a tool to improve its quality. For example, digital technologies have didactic (educationally significant) properties, including:

- freedom to search for information in the global information network;
- personality - the availability of unlimited opportunities to individualize the needs and characteristics of each student, including the choice of presentation of material, level of difficulty, pace of work, number of repetitions, the nature of training, play environment, etc.;
- interactivity - the ability to provide multi-subjectivity in the process of educational communication and learning interaction);
- multimedia (polymodality) - the ability to comprehensively use different channels of perception (auditory, visual, motor) in the learning process;
- hypertext - the freedom of movement in the text, a concise presentation of information, the modularity of the text and the need for its continuous reading, the reference nature of information, folding-unfolding information, the use of cross-references, etc.;
- sub-culturalism - the correspondence of the usual way of the world for the digital generation, "recognizability", - thanks to which students are immersed in a familiar digital environment. The change of teaching aids, as well as the change in any part of the educational environment, naturally leads to the restructuring of the whole system: significantly

changes the activities of the subjects of the educational process, as well as forms and methods of teaching, content of educational material.

Therefore, the activities of the head are complicated both in content and psychologically. After all, there are often situations that require quick and effective decision-making. In these conditions, the readiness of directors of general secondary education to work in new conditions is seen as the ability to work in difficult predictable conditions.

Note that the Concept of implementation of state policy in the field of general secondary education reform considers information and communication technologies (ICT) in the educational process as a "tool for ensuring the success" of the NUS. Renovation of the Ukrainian school requires the introduction of new educational technologies into the educational process. One of the ways to create such a school is to use ICT technologies in the educational process. According to modern researchers, the end-to-end use of ICT in the educational process and management of educational institutions and the education system should become a tool to ensure the success of the New School. Information and digital competence involves the confident and at the same time critical application of information and communication technologies by modern man of the XXI century in everyday life, in professional activities, public space and private communication. Along with this, the leading role in the implementation of the NUS Concept depends, in particular, on the effective use of modern information and digital technologies by the heads of general secondary education institutions. Therefore, at present, the system of advanced training of school principals is actively working to ensure the development of digital competence of heads of general secondary education institutions. However, scientific knowledge about the process of managing the development of this phenomenon is now somewhat fragmentary, which actualizes the feasibility of our scientific research.

It should be noted that etymologically the word "management" comes from the verb "manage", which means:

a) to direct the course, movement of someone or something (for example, to drive a ship, car);

b) to manage, direct the activities, actions of someone or something (for example, to manage the state, secondary school, to manage the educational process).

Therefore, management is a process of influence of the subject on the object in order to achieve a new qualitative state of the latter. The subject of management is the one who manages (the head of the secondary education institution). The object of management is the one who is managed (subordinate teachers, students). In pedagogical management, the influence on the object of management is carried out using a cohort of methods. The method is a certain, the most rational, pre-developed sequence of certain tasks, works, decisions. In the system of pedagogical management of advanced training of heads of general secondary education institutions, methods occupy a special position, as they are characterized by practical application. It is through methods that education managers influence managed objects to transform them from their original state to their desired state. Management methods are ways of carrying out management activity, which, on the one hand, is a process of realization of management functions, and on the other - influence on the personnel of the organization. By the nature of the action there are economic, organizational-administrative, socio-psychological and quantitative management methods.

Analyzing the concept of "management", we have identified its main characteristics: it is a process of purposeful change of state of another object; the process of streamlining, regulating the system in order to obtain the desired result; the creative principle of management is reduced to providing conditions for optimal functioning of the managed system. The phrase "development management" often appears in the system of professional development of pedagogical workers. Therefore, let us interpret the category of "development".

The category of development is one of the leading in modern scientific research. Note that the categories are the most capacious and general concepts about the essence and properties of science. Pedagogical categories

- the main pedagogical concepts that express scientific generalizations. The main pedagogical categories include upbringing, education, training. At the same time, domestic science often also operates with general scientific categories, such as "development" and "formation".

Development is an objective process and the result of internal consistent quantitative and qualitative change of physical and spiritual forces of man (physical development, mental, social, spiritual). This change, which is the transition of quality from simple to more complex, from lower to higher; a process in which the gradual accumulation of quantitative changes leads to the onset of qualitative ones. Being a process of renewal, the birth of the new and the demise of the old, development is the opposite of the processes of regression, degradation. In classical psychological knowledge, development is a process of irreversible, directed and natural changes, which leads to the emergence of quantitative, qualitative and structural transformations of the human psyche and behavior. The main properties of development that distinguish it from all other changes are irreversibility, direction, regularity. However, the development process is not universal and not homogeneous. This means that in the course of development there are multidirectional processes: "the general line of progressive development is intertwined with changes that form the so-called" deaf "moves of evolution or even directed towards regression".

Today the idea of development is key in the ideology of the New Ukrainian school, the central problem in this ideology is the search for ways of development and self-development of educational systems. In our opinion, an important strategic line in the development of digital competence of school principals is the strategy of enriching the knowledge, skills, abilities of principals of general secondary education institutions to use digital technologies in the process of solving managerial tasks.

The Law of Ukraine "On Education" (2017) defines the range of competencies of the head of an educational institution. The principal is responsible to the state for the organization and quality of educational work with students, strengthening

their health and physical development, training of employees, the school's relationship with the family, as well as for the economic and financial condition of the school.

The head of an educational institution is a representative of the educational institution in relations with state bodies, local governments, legal entities and individuals and acts without a power of attorney within the powers provided by law and the constituent documents of the educational institution. The head of the educational institution within the powers granted to him/her:

- organizes the activities of the educational institution;
- decides on the financial and economic activities of the educational institution;
- appoints and dismisses employees, determines their functional responsibilities;
- provides organization of the educational process and control over the implementation of educational programs;
- ensures the functioning of the internal system of quality assurance of education;
- provides conditions for effective and open public control over the activities of the educational institution;
- promotes and creates conditions for the activities of self-governing bodies of educational institutions;
- exercises other powers provided by law and the constituent documents of the educational institution.

Given the outlined theses, we consider it appropriate to summarize that a modern leader must work ahead, not be afraid to implement modern information and digital innovations, both in their work and in the work of the educational organization. After all, the development of digital technologies and their large-scale implementation in all sectors of the economy form new requirements for the competencies of personnel employed in various sectors of the Ukrainian economy. Digital competencies are becoming a significant factor in the competitiveness of educational entities. This applies not only to production

structures that produce innovative products, but also to structures and educational structures involved in the formation of intellectual resources of society. Thus, in the system "education - science - production" digital competencies become a creative factor that, transforming into an intellectual resource, generates effective development of the system. In the context of digital transformation of the Ukrainian economy, the dominant element of the system "education - science - production" is general secondary education. This is due to the fact that education, promoting the development of human capital, provides the formation of models of competencies that reflect the requirements of the digital economy to the knowledge, skills and abilities of staff. Such models, covering the range of skills, abilities and knowledge, reflect the trends of the digital society, in particular, the need for lifelong learning.

In today's conditions, educational structures, including general secondary education, are a key part of preparing students for life in society of new digital technologies and their application in practice.

Therefore, schools today should primarily focus on solving problems of training, retraining and advanced training of directors of general secondary education in the field of:

- application of CICT and innovative pedagogical methods;
- development of curricula, programs and teaching materials of a new type that meet the requirements of the Global Knowledge Society;
- creation of professional networks and educational communities for consolidation of experience and pedagogical practices, as well as provision of appropriate organizational and preparatory measures to achieve accessibility of all school principals to modern methodological developments.

Confirmation of this opinion can be found in the Digital Agenda of Ukraine. This document states that the rapid spread of "digital" technologies makes digital skills (competencies) of citizens key among other skills. Thus, "digitalization" and cross-platform are currently the main trends in the general labor market. The implementation of such an approach requires a radical change in the whole

paradigm of postgraduate education, the development of innovative models of the educational process that integrates new educational technologies. First of all, it concerns integration into the process of professional development, including the development of digital competence of heads of general secondary education institutions, machine learning technologies, artificial intelligence, introduction of information-educational and digital environment.

The role of the modern school principal, the level of his training - in particular digital competence - is extremely important for the implementation of the values of the New Ukrainian School. That is why the current head of general secondary education must have innovative practices to guide teachers to implement such learning models as: adaptive learning, synchronous and asynchronous learning, blended learning, self-directed learning, distance learning, cloud and mobile learning, virtual classroom, inverted class, e-learning management system, learning process, course (CMS) management system, gamification, personalization, digital storytelling, etc.

Currently, it is not enough for the head of a general secondary education institution to be technologically literate and be able to pass on the accumulated knowledge to his subordinates. The modern head of the educational organization must be able to help the teaching staff to use digital technologies for successful cooperation, solving current educational problems, mastering new knowledge, skills and abilities, as the school principal is focused on developing a personality capable of owning, applying, analyzing, synthesizing information. to be a full-fledged employee and citizen.

It is worth noting that often the head of the educational organization does not even know what can be done or how to significantly save time through the use of modern digital educational resources. It should also be emphasized that the knowledge of the possibilities of using modern digital educational resources and the ability to work with them is not enough for their effective use in the educational process of general secondary education, as well as for the direct implementation of management functions. In order to solve this problem, it is necessary to timely develop the necessary methodological materials for the use

of modern digital educational resources and develop a system of measures in the system of advanced training aimed at developing digital competence of heads of general secondary education. Summarizing the scientific achievements of modern researchers, showed the fact that competence is reflected in the set of competencies. Therefore, within the study we will consider that the digital competence of the heads of secondary schools consists of a set of competencies that are reflected in the ability to:

- information management, which includes knowledge, skills and abilities to search for the necessary data, their analysis and use in accordance with the objectives of pedagogical activities of the teacher;
- collaboration, which encompasses the knowledge, skills, and abilities necessary for teachers to participate in online communities and interact with other users on the Internet;
- communication, which covers the knowledge, skills and abilities of managers to communicate using online tools, taking into account confidentiality and security;
- creation of content and knowledge, which includes knowledge, skills and abilities of the individual for creative activities and the creation of new knowledge through the use of ICT and previous knowledge and content disseminated through the Internet;
- evaluation and Problem-solving, which is manifested in the appropriate selection of ICT to solve the problems of processing the results of evaluation using ICT and provide appropriate advice;
- technical operation, which covers the ability to safely and correctly use ICT in their professional and educational activities.

Due to the fact that the purpose of implementing IT-technologies in the school management process is to improve the quality and efficiency of management decisions and the transition to paperless technology, the problem of managing the development of digital competence of school leaders is gaining national scale.

This goal, as P. Grabowski emphasizes, can be achieved only with the appropriate equipment of schools with computer equipment and free access to electronic resources. In a modern school, which monitors and diagnoses the educational achievements of students, implements personality-oriented and developmental learning, the flow of information received by participants in the educational process increases many times over. In this regard, the use of modern information technology is an integral part of the educational process and the most important area of implementation of the NUS Concept and the strategy of preparing students for life in the information society. Today, this process requires the head of the general secondary education institution and the administrative apparatus as a whole to be constantly involved in the process of learning and mastering new information technologies in order to increase the innovative potential of the educational institution.

The head of a general secondary education institution as a competent and effective manager of the education system, without a doubt, acts as a leader of the teaching staff of the educational organization, and therefore he must be a "carrier" of the changes he wants to see in others [Kravchenko G. Yu. competence of the head of the educational institution in the conditions of postgraduate pedagogical education]. This involves the constant professional development of leaders, the use of digital educational resources, which provides both monitoring of the current situation in educational activities, and the opportunity to experiment and develop new directions in the educational process.

The importance of ensuring the development of digital competence of modern heads of general secondary education institutions is noted by V. Lavruk, which points to the fact that the school principal in the education system is the most valuable human resource and capital, because it is from the quality of his work as a manager-professional, the presence of a creative approach to management primarily depends on improving the efficiency of a particular educational organization.

While information oversaturation and constant structural and systemic changes in the social sphere, the penetration of information and communication and digital technologies in all spheres of life significantly increase the importance of digital training of heads of educational organizations, including schools. The modern manager of the system of domestic general secondary education must be not only professionally competent, but also able to solve current educational problems through the use of digital technologies.

Thus, there is a need to review the existing system of professional development of teachers, in particular the heads of general secondary education. After all, today the development of digital competence as a component of professional competence is becoming an important goal of retraining the leaders of educational organizations in the digital economy. The process of professional growth and development of professional knowledge, skills, abilities of school principals is very complex and time-consuming, especially today, when the range of competencies that must be mastered by an effective manager has become so diverse and multifaceted. At the same time, in our country there is a lack of methodological support for the development of digital competence of heads of general secondary education institutions in educational institutions focused on additional vocational education and in their special training programs aimed at quality retraining of modern managers of the XXI century. The outlined theses aim to find ways to develop the digital competence of teachers in the experience of foreign countries.

Thus, in the countries of the European Union, where educational reforms are aimed at harmonizing curricula and standards to the requirements of the international community, a number of documents have been developed to adjust the system of training and retraining of teachers to current trends, encourage new digital tools and use them in everyday life, work.

Conclusion

Based on the analysis of the outlined concepts that form the basis of the category "management of the development of digital competence of heads of

secondary schools", we conclude that the management of the phenomenon under study by school principals is a continuous sequence of actions by management entities. There is a formation, change, streamlining, regulation of the announced integral quality of the leader's personality, which reflects his attitude to the use of information and communication and digital technologies in professional activities, his behavior in terms of digitalization of the educational process.

In summary, we note that the information society today makes special demands on school leaders, their professional competence, one of the most important components of which today is digital competence. Possession of digital competence in combination with the skilled use of modern means of information and communication technologies is the basis for the implementation of the tasks of NUS.

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