The Formation of Managerial Competence of the Future Head of Preschool Education by Means of Information and Communication Technologies

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Summary
The article deals with the formation of managerial competence of the future head of preschool education institution by means of information and communication technology as a prerequisite for his ability to act competently and objectively evaluate actions and understand the interaction of forms and content of preschool education. The article aimed to study the effectiveness of information and communication technologies in the formation of managerial competence of the future head of preschool education institution. To achieve the objectives, the methods of comparative and systematic analysis were used to compare different views on the problem under study, namely, the formation of managerial competence of the future head of preschool education institution by means of information and communication technologies. The authors of the article determined that the use of information and communication technologies in the preparation of future heads of preschool educational institutions is of great importance and is an indicator in the structure of managerial competence. The priority directions of the use of various software products for the study of the modern Ukrainian language, methods of teaching the Ukrainian language contribute to the intensification of learning material. It is noted that the current state of development of information technologies and their widespread use in education satisfies the requirements of the objectivity of the assessment obtained the quality of the control process of forming the managerial competence of the future leader in the context of the general problems of pre-school education. It is noted that the means of information and communication technologies play a leading role in creating new educational policies and projects, as they motivate the way of access to knowledge.

Keywords:
systems training of applicants in higher education, managerial competence, future head of preschool education institution, information and communication technologies.

1. Introduction

Orientation of Ukraine to the European standards projects a qualitative renewal of education and intensifies the attention of modern scientists to the problems of formation of managerial competence of a future leader in the context of general problems of pre-school education [1]. The fundamental educational direction in higher education institutions is now becoming the training of future specialists of a new formation, who will be able to use information and communication technologies for the implementation of management activities (strategic, organizational, analytical management; search, creation, and distribution of information), ready for instant and creative solutions to non-standard. situations and problems of the team, timely and identical response to the requirements of technological progress. For example, the leading characteristic and tools for improving the development of the system of the educational process of higher education institutions are information and communication technologies, aimed at making this process intellectual, creative, versatile, comprehensive, and interesting.

Consequently, the use of the above-mentioned technologies actualizes the problem of formation of managerial competencies in training the future head of preschool education institution, based on general theoretical laws and foundations of scientific management in practice, which determines sustainable updating of the system of higher education applicants' training in accordance with the latest aspects of education modernization of the XXI century.

Thus, the section “Goals, priorities and principles of education development” of the National Doctrine of Education Development of Ukraine in the XXI century defines the key goal of the Ukrainian educational system, which is to provide “the creation and introduction of information technologies of education” [2]. The future leader must master modern information and communication technologies, which will help his professional and personal growth, and the formation of managerial competence to effectively realize their own potential in managerial activity. Managerial competence by means of ICT becomes as one of the components that a future leader must have. The motivation of the problem of managerial competence provides preparation of the future head of the preschool educational institution. It is in this understanding that information and communication technologies (ICTs) become a significant means of

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educational, cognitive, scientific, research activities of masters [3]. Therefore, considerable attention in the preparation of the future head of a preschool education institution is focused on the active implementation of information and communication technologies in the educational process of higher education institutions.

Contemporary ideas for shaping the managerial competence of future leaders, by means of ICT in higher education institutions, integrate traditional and innovative technologies, improve awareness, understanding, and perception of educational material, implement a personal approach to masters and effectively act on their effective dialogue and partnership in the educational process. The problem of effective implementation of information and communication technologies is studied: in education, scientific research of domestic and foreign researchers [4-5; 9-11]; in preschool education [6-8].

Consequently, there are no works in a large number of scientific studies, which consider the problem of training the future head of the preschool educational institution in higher school in the context of forming managerial competence by means of information and communication technologies [18]. The above-mentioned actualized the search for technologies of formation of managerial competence of the future head of the preschool educational institution and directed to conduct scientific research on the expediency of introducing information and communication technologies in training of masters. According to our scientific hypothesis, the formation of managerial competence by means of ICT will have a positive impact on the preparation of the future head of preschool education institution in the institution of higher education.

1.1. Literature review

Analysis of research on the formation of managerial competence shows that the introduction of information and communication technologies increases the effectiveness of the training of the future head of preschool education institution and requires research studies in a particular direction.

The content of future managers' preparation for management, and formation of managerial competence is evidenced by scientific research, namely: in the context of education management, implementation of innovative technologies in management practices of educational institutions, including institutions of preschool education [12; 13]; managerial competence in education; professional training of a new generation of managers for educational institutions [11]. The exhaustive review of scientific research has contributed to the definition of such directions of the research search for the formation of managerial competence of the future head of preschool educational institution by means of ICT, in particular: methodological foundations of ICT implementation at different levels of education; development of methodological foundations of design, creation, and use of multimedia educational programs and multimedia educational complexes; psychological, pedagogical and technical factors of multimedia technology implementation; implementation of ICT in preschool education [14]. Thus, Hrebenyk (2019) defines informatics training as a process aimed at assimilating knowledge and forming skills on the application of ICTs in further professional activities. The main task of informatics training of students the scientist calls providing the future specialist with thorough theoretical knowledge, skills, and abilities in the field of computer science and ICTs [15].

According to Semchuk, et.al. (2018) ICTs are used as an auxiliary tool for effective solution of didactic tasks [16].

Nazarenko and Andriushchenko (2019) define the capabilities of ICT as a tool that models the content of learning objects by constructing [13].

Analyzing the question Buinytska (2022) emphasizes: “The introduction of ICT in the training of students intensifies the development of internal motives and the ability to acquire and update knowledge, to enrich the experience with innovative technologies, to use computer technology to search and use information, to master the skills of independent work in the educational process [14]. Convincing evidence is the position of Chepil that “based on a combination of traditional pedagogical and information and communication technologies of education it is possible to develop and multiply the natural assignments and abilities of a person much more effectively. The use of these technologies in the learning process creates additional conditions and entails the emergence of new goals and updating the content of education, makes it possible to achieve significantly greater results of learning activities, to ensure for each of its participants the formation and development of their own educational trajectory”[1].

The importance of this is that the future head of the institution of preschool education should not only be taught how to use ICT for specific educational purposes but to give them a set of general and professional competencies that will ensure the independent and effective use of knowledge and skills in the practice of organization and management of preschool education, which corresponds to the current level of development of the preschool education informatization process.

So, modern researchers determine that the preparation of the future head of an educational institution by means of information and communication technologies provides an extremely wide range of information knowledge and skills, facilitating the study of managerial theoretical and methodological foundations. The analyzed studies allow us to state that the formation of managerial competence by

means of ICT is expedient to consider as an important component of the future head training, the implementation of which will be the main driving force, motivational component of the future head, as an organizer of the educational institution activity. However, we believe that the issues of formation of managerial competence of the future head of a preschool educational institution, by means of ICT are insufficiently investigated.

In this regard, in the aspect of our research, the question of the formation of managerial competence of the future head of preschool education by means of information and communication technologies as a necessary condition for his ability to act competently and objectively evaluate actions, to understand the interaction of forms and content of preschool education have theoretical training in modern management, operate with new concepts, to be able to navigate in the information space.

Article aim. Study the effectiveness of information and communication technologies in the formation of managerial competence of the future head of preschool education institution.

Consequently, the objectives of the article were to:

1. to reveal the essence of the concept of managerial competence of the future head of preschool education by means of information and communication technologies;
2. theoretically justify the results of the study of pedagogical conditions of the possibility of using ICT tools to form managerial competence of the future head of preschool education based on theoretical and practical activities;
3. present practical models for forming managerial competence of the future head of preschool education by means of ICTs;
4. determine the effectiveness of ICT tools for the formation of information and communication technologies in the training of the future head of preschool education institution.

2. Research methods

To achieve the objectives used methods of comparative and systematic analysis to compare different views on the problem under study, namely, the formation of managerial competence of the future head of preschool education by means of information and communication technologies.

3. Study results

The modern educational paradigm characterized by reforming, integrating, and innovating determines the management personnel policy, which, in turn, increases the demand for the formation of managerial competence of future managers, by means of ICTs. In this connection, the quality of preparation of the future head of a preschool education institution is of particular relevance.

In the process of studying scientific sources, rating of practice it was found out that there are different essences of the content of “managerial competence”: a component of his professional competence system, includes a set of knowledge, skills, and abilities to perform managerial functions; an organic complex of general and special knowledge, skills, abilities, ensuring the effectiveness of management of an educational institution in modern conditions; the ability of an employee to use in practice modern organizational and managerial forms and The work considers managerial competence of the head of preschool education institution as a readiness of the head to effectively and efficiently carry out management functions based on theoretical knowledge and practical skills, information and communication technologies, experience, personal qualities, aspiration to meet modern demands for achieving goals and solving the set tasks. In the study, the problem of formation of management competence of a future head of a preschool educational institution is topical because a candidate exactly in an institution of higher education gets professional education, systematically learns knowledge of organization and management in preschool education, theory and practice of management of a preschool educational institution and organization of educational process begins to understand the leading importance of management competence of a preschool educational institution. The future head of an institution of preschool education should understand that managerial competence, which is a key methodological tool and contributes to quality solutions of managerial decisions and management activities, ensures the implementation of effectively defined goals and content of education, its results in the system of professional training of applicants for higher education, in the formation of their readiness to successfully solve major problems of professional activity.

Based on the research Vinarchuk and Sholovii (2021), scientists note that managerial competence of a preschool head is an integrated personal formation of a teacher, which reflects the unity of his theoretical and practical readiness for effective implementation of various managerial functions (information and analytical, motivational, organizational, control-regulatory, etc.)[6]. A teacher, forming managerial competence of higher education applicants, must form professional skills of a future leader: non-traditional design of the educational process, creative thinking, original solutions of pedagogical management situations, conduct meetings, pedagogical councils, other forms of work and analyze them, the ability to work with management documentation, analyze different circumstances, resolve conflicts, model based on their own professional and personal experience innovative methods, technologies of effective management,

use information and communication technologies, creativity and ingenuity, etc.

Actual approaches to the formation of these skills involve the use of ICTs. Because traditional methods and means of teaching do not represent always meet the requirements of modern education, the development of science and technology, which requires the use of innovative technologies and teaching methods and the use of ICTs in the educational process. First of all, this problem especially arises in the formation of knowledge, skills, competencies, motivation, and cognitive activity of future leaders and becomes effective when using didactic materials and interactive tools.

Updating the content of management training, which is one of the advantages of the restructuring of higher education, is the use of effective ICTs, the creation of a new system of management,t and information support of the educational process. The ability to use digital technologies and resources confidently and critically, digital educational environment in professional activities, daily life, and communication is of particular importance for increasing the scientific level of managerial competence of the future head in the institution of preschool education. Mastery of ICT allows to comprehend the future advantages of tasks of preschool education and science in general; helps to orient in new standards, concepts, concepts, technologies; equips the head of the preschool institution with a system of research methods; provides a selection of effective methods, techniques, and forms of organization of planning and realization of managerial activity; allows to model and analyze situations and ways out of them; to orient in information space and safely behave in digital.

ICT is “a specific way of working with information: it is both a body of knowledge about the ways and means of working with information resources and the ways and means of collecting, processing and transmitting information to obtain new information about the object under study” [5].

Information and communication technology is a set of methods, tools, and techniques of search, storage, processing, presentation, and transmission of graphic, text, digital, audio, and video data based on personal computers, computer networks, and means of communication [11]. The means of information and communication technology can be different - it is information resources, equipment, and educational electronic publications (personal computers; input and manipulation of textual and graphic information, audio-visual information manipulation devices; modern means of communication; artificial intelligence systems and all such) [8].

According to the methodological purpose information and communication technologies are classified into (Fig.1):

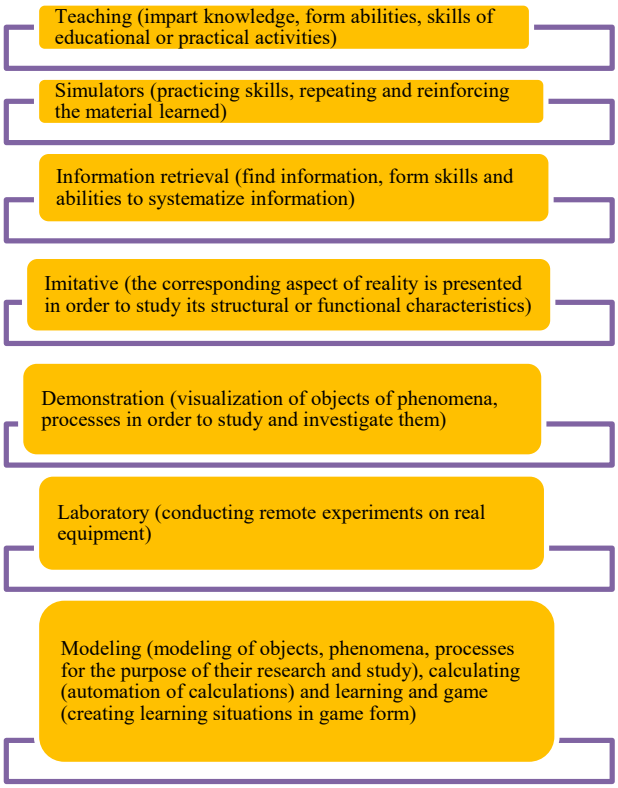

Fig. 1 The methodological purpose of information and communication technology

Source: summarized by the author based on analysis [17]

Application of ICT in the modern educational space: streaming multimedia, information transmission medium, file sharing and social networks, cloud technologies, Google and Wikipedia services, Meet, ZOOM, chats, webinars, etc. Modern ICT play an important role for applicants - future managers, because they are effective for: information retrieval in the network using web-browsers, databases, information retrieval, and information reference systems, automated library systems, electronic magazines; organization of bilingual dialogue in the network: using e-mail, simultaneous conferences, communication on-line networks like Skype, Chat; creating thematic web-pages and web-quests by using web-browsers, graphic editors [16].

It should be noted that the development of educational activities of higher education institutions and the use of information and communication technologies in training have led to real significant changes. The use of information and communication technologies in the training of future managers of educational institutions is of great importance and is an indicator in the structure of managerial competence. Thus, the State Standard of Higher Education for Training Specialists in “Institution

Management" in the context of ICT-competence somewhat extends the requirements for the knowledge and skills of future managers of educational institutions. This document stipulates that future specialists must master the technology of information transfer, which, given the current state of development of information and communication technologies in education and management, provides for the use of e-mail, Internet services to conduct professional marketing research, sociological surveys or psychological testing, video-conferencing, etc.; to organize collective work with documents, including by means of cloud technologies; to use modern information technologies to manage information communication [17]. The use of ICT in the work of the head of a preschool institution allows: to freely navigate in the world information space, search, process, and store information find the necessary source of information and receive up-to-date information, self-education, have access to a methodological base of developments, self-education, communicate with colleagues in different forums, receive qualified consultations and expert advice, publish their materials, participate in discussions of published materials, participate in professional competitions, webinars, exchange experiences with colleagues from other regions and countries.

At the reporting conferences on the training and production practice in the role of the head of the preschool institution we clarified a number of issues of ICT use in management activities:

1. Is it necessary to use ICT in management activities?
2. Is the preschool connected to the Internet?
3. How does the manager use the Internet to communicate on professional issues with colleagues, management, subordinates, and parents?
4. Has an electronic platform been created to support the management of the preschool institution?
5. Do supervisors use local resources, web, and cloud-oriented services
6. Will you use information and communication technologies in future professional activities? How exactly?

The state of ICT use by preschool education managers in their professional activities was found out: the majority of preschool institutions have computer equipment (85%) and an Internet connection (95%), which are used for professional purposes by various preschool teachers (head, methodologist, teachers, etc.). Preschool education managers use the Internet for communication on professional issues with colleagues (65%), managers (86%), subordinates (52%), and parents (48%), for saving labor and time, awareness of the system under control, the efficiency of management decision-making, the adequacy and productivity of the management decisions, optimization and automation of information processes, the intellectual potential of the staff. 40% of the respondents acknowledged the lack of effective networking skills.

All respondents agree to use ICT in further professional activities, because according to the Order of the Ministry of Education and Science of Ukraine No. 665 of June 01, 2013 "On approval of qualification characteristics of professions (positions) of pedagogical and scientific-pedagogical employees of educational institutions" [3] must use computers. computer equipment and software to create, store and process information, as well as know the basics of working with a personal computer and peripherals to it. It is the head of educational institutions who must master computer literacy, which includes, first of all, understanding of the general principles of computer structure and operation, the ability to work with the operating system, applied office programs: text (Word) and graphic editor (Excel), etc. [19]. Modern ICTs for training a future head of an educational institution are effective and improve the quality of training, educational and industrial practice, ensure thoroughness, unity, planning, and efficiency of the educational process management. Effective use of ICTs is a significant factor in the renewal of educational activities in the context of European integration.

So, in the context of our study, we concluded that the majority of heads of preschool educational institutions experience problems related to the processing of information, its application to the development of educational and management decisions, and the use of ICT in doing so. In this regard, we, the teachers of the institution of higher education, have the task to develop an experimental program for the formation of managerial competence of the future head of preschool education by means of ICT to implement the theoretical and practical training.

Exactly, the hypothesis of forming managerial competence of the future head of preschool education institution will be more effective in accordance with the requirements of the Order of the Ministry of Education and Science of Ukraine № 665 of June 01, 2013 "On approval of qualification characteristics of professions (positions) of teaching and scientific-pedagogical staff of educational institutions" [3] if ICT tools are used for theoretical and practical training.

The use of ICT tools is a multifunctional mechanism of the modern educational process and will expand the possibilities of methods and tools for the formation of managerial competence, which will lead to the successful solution of educational and management problems, to optimize the management activities of preschool educational institutions.

The content of the program meets the goals and characteristics of the educational and professional program of the second level of higher education (master's degree) in the specialty “Preschool education” (to prepare a specialist with developed competencies, developed pedagogical thinking, and deep knowledge of research skills with an emphasis on implementing professional activities in the field of preschool and higher education, providing information and communication technology management processes in institutions of preschool education and higher education).

The main objectives of the experimental program were the formation of managerial competence of future leaders by means of ICT: increasing motivation in the use of ICT to form managerial competence in the educational process; forming and developing skills in working with information and communication technologies; forming skills in working with computers and other means of communication; mastering ways of creating, correcting and analyzing electronic educational materials; forming skills in working, finding the necessary information on the Internet; participation in networked pedagogical communities; learning to use ICT tools to form managerial competence to optimize managerial activity.

Basic principles of the program: the principle of activity and partnership of future leaders: masters constantly participate in various activities - exercises, seminars, round tables; reflect, as well as observe and analyze the work of other participants; the principle of independence - future leaders independently perform all tasks; the principle of constant feedback, i.e. future leaders analyze and discuss the results of their work; the principle of accessibility - all future leaders of the program will have ICT, methodological and technical means of education available.

Analyzing the activities of the head of a preschool institution, the authors of the program identified the most important aspects of training to effectively form managerial competence by means of ICT: services and Internet protocol platforms have been developed for education, which helps in both teaching and learning models. These include e-learning platforms. Examples of open-source platforms are mainly Moodle, Chamilo, Claroline, ATutor, or Sakai. Among the commercials, we can mention: Blackboard, Educativa, Saba, Almagesto, and Neo LMS.

These platforms use such resources as interactive whiteboards, online virtual classrooms, discussion rooms, forums, questionnaires, diagrams, audiovisual resources, digitized bibliography, documents for joint work on the Internet, portfolio, educational games, work with text editor WORD; building charts in EXCEL, creating presentations using POWER POINT program. It should be noted that the essence of the practical aspect is the application of the acquired knowledge and skills in solving educational and management problems: the creation of documentation in electronic form, drawing up reports and performing data sampling using spreadsheets, making presentations of reports at pedagogical councils and parents' meetings. The combination of theoretical lessons and practical skills will help convince the future leader that ICTs are necessary and feasible for improving management activities (Table 1).

Table 1: The program consists of 4 modules (course I (masters), 2 semesters)

Module	**Deadlines**
1. Information processes in the educational process of higher education	February 2020
2. The computer as an information processing tool. Basics of using a computer.	March 2020
3. Methods of using information technology in the formation of managerial competence of the future head of the preschool educational institution	April 2020
4. The main factors contributing to the formation of managerial competence of the future head of preschool education by means of ICT	May 2021

Source: authors' own development

Forms of classes: lectures, seminars, roundtable discussions, practical classes, trainings, consultations, master classes.

Module 1: Information Processes in the Educational Process of Higher Education

Purpose - to familiarize future leaders with information and communication technologies in education; to increase motivation for the use of ICTs in educational and managerial activities.

1. Lecture “Updating the content of undergraduate education in the modern state of development of information and communication technologies in education and management” (duration 1 hour).

2. Seminar “Basic Information Processes: Information Storage, Transfer, and Processing” (1 hour).

3. Seminar “Best Practices in Using Information and Communication Technologies in Education” (1 hour).

Module 2. The computer as a means of information processing. Basics of using a computer.

Purpose - mastering of modern digital equipment, its maintenance, software setup, and formation of computer skills.

1. “Computer Fundamentals” curriculum (12 hours):

- Lesson “Basic computer components and their functions: processor, input and output devices, main and long-term memory”;

- Lesson “Data and Programs. Files and the file system”;

- Lesson “Basics of computer graphics” (“Ways of representing images”, “Graphic file formats”);
- Lesson “Basics of Word Processing” (“Microsoft WORD”, “Formatting of Text”)
- Lesson “Basics of Presentation Creation” (“Creating Presentations in MS PowerPoint”, “Using Animation in PowerPoint”):
- Lesson “Technology of interactive whiteboard” (“Electromagnetic interactive whiteboard”, “Working with a multimedia projector”, “Software for working with the interactive whiteboard”):
- Lesson in “Basics of Spreadsheet Creation” (“Spreadsheets in Word Processing”, “Microsoft Excel Spreadsheets”).

2. Seminar “Technological equipment and application in preschool educational institutions” (2 hours).

3. Master class “Learning to configure the software” (1 hour).

4. Training “Creating an Information and Communication Learning Environment” (1 hour).

Module 3. Methods of using information technologies in the formation of managerial competence of the future head of the preschool educational institution.

The purpose - the formation of the ability to create their own information resources using software tools in the formation of managerial competence.

1. Lecture “The use of digital resources in preschool institutions” (1 hour).

2. Seminar “Designing with ICT” (3 hours):
- “Creating Electronic Educational Resources”;
- “Fundamentals of Design with ICT”;
- “Creating computer tests”.

3. Curriculum “Using Information Resources in Preschool Educational Institutions” (2 hours):
- practical exercise “Creating your own information resources”;
- practical exercise “Didactic Fundamentals of Media Education”;
- practical exercise “Working with information: collecting, analyzing, processing”.

Creation by future leaders of an electronic library of management information materials, a bank of classes using ICT; educational projects, a bank of creative works using ICT.

4. Seminar “Modeling and designing management activities with the help of ICTs” (2 hours).

Module 4. The main factors contributing to the formation of managerial competence of the future head of EHC by means of ICT

The purpose is to teach:
- efficiency of obtaining information;
- reduction of direct and reverse information flows;
- prompt receipt and processing of reports;
- systematic storage and efficient use of the regulatory framework, information about the material and technical base, staffing of preschool education institutions, and the experience of teachers;
- reduction of time spent on carrying out the functions of analysis, control, and preparation of current information;
- use of new forms of presentation of information, new forms of training sessions, and new information technologies for pedagogical and managerial purposes;
- implementation of a system of computer support for the monitoring of educational processes;
- activation of methodological work with teachers, their training with the help of wide possibilities of computer educational networks of the educational process: teachers, parents, administration;
- training in the basics of creating a website.

At this stage of training, the following work was carried out.

1. Lecture “Information support of educational organization based on communication and the Internet” (1 hour);

2. Training “Exploring the information space” (2 hours):
- introduction to social services;
- exploring the possibilities of social services for use in the educational process of training future leaders;
- studying the issues of posting their own materials on the Internet.

3. Training “Search in the information space” (2 hours).

The training includes a discussion of the following issues:
- group retrieval and storage of information;
- group creation and use of media materials;
- group editing of text documents, spreadsheets, and web presentations;
- group editing and use of maps and charts.

4. Practical lesson on creating personal business cards and group pages in social networks (1 hour).

5. Practical lesson on creating a personal portfolio (1 hour).

6. Practical lesson on the creation and use of e-mail to organize the interaction of the subjects of the educational process (1 hour).

7. Practical exercise on discussing criteria for evaluating information, articles, and online projects on the Internet (1 hour).

8. Seminar “Distance professional development in the structure of the network” (2 hours).

Pedagogical control is an integral part of the process of education and professional training of specialists. Learning achievements in the discipline are evaluated by the module-rating system, which is based on the principle of operational reporting, a cumulative system of evaluating the level of knowledge, skills, and abilities; expanding the number of final points to 100. The function of control in

the educational process of the institution of higher education plays an important role, so all the above said about the application of information and communication technologies (ICT) in the process of formation of managerial competence of the future leader, positively affects their achievement in the process of control, as a significant part of the learning process.

The use of ICT affects the modification of the goals, and content of the educational process, including control, which creates the appearance of new methods, means, and organizational forms of training and control.

The process of evaluating the learning achievements of the future head of preschool education requires automation of control methods, application of computer technology, and appropriate software. One of the methods of written control and an effective tool is computer-assisted test tasks, which intensifies the preparation of the future head of preschool education institution for each class and increases the motivation to study the subject. Methods of oral control can be replaced by computer-based methods when conducting final module control, control works, examinations, etc. Monitoring of students' progress with the current and final assessment is carried out in accordance with the distribution of points.

The tests are located on the Moodle learning platform, some of whose typical features are “task submission,” “assessment,” and “online testing”. In particular, Moodle (an acronym for Modular Object-Oriented Dynamic Learning Environment - a modular object-oriented dynamic learning environment) is a learning platform designed to combine teachers, administrators, and students (students) into one reliable, secure, and integrated system to create a personalized learning environment[20]. In the Moodle environment, students get:

1) access to training materials (lecture texts, assignments for practical/laboratory and independent work; additional materials (books, reference books, manuals, tutorials) and tools for communication and testing “24 by 7”;

2) tools for group work (Wiki, forum, chat, seminar, webinar);

3) the ability to view the results of taking a distance learning course by a student;

4) the ability to view the results of passing the test;

5) the ability to communicate with the teacher through personal messages, forums, chat;

6) possibility of downloading files with completed tasks;

7) possibility of using reminders of events in the course.

Introduction and use by teachers of the use of different types of tests (supported formats: GIFT, Aiken, Moodle XLS); automatic generation of tests; automation of the knowledge testing process, reports on students' passing the course, and reports on students' passing the tests.

The learning management system Moodle has many features that facilitate the process of assessing students' knowledge. Knowledge control is made in the system by a separate module, offering many kinds of tests, providing the ability to retest with the permission of the teacher, the possibility of protection against cheating by randomizing questions in the test tasks, a database of questions for use in tests. The system has mechanisms for storing current assessments of each student on all distance courses, setting the scale of assessments, semi-automatic enumeration of test results, etc.

This arouses the interest of participants in the educational process, and in addition, allows them to independently check and evaluate the level of their own knowledge on a particular topic (module). A built-in test editor allows you to create tests and use the system to record the progress of testing and its results, including such indicators: time of test tasks, the number of wrong and correct answers, and the final grade.

During the assessment of knowledge of future test supervisors per hour is offered to perform 100 tests with a choice of single-item answers (multiple choice - single answer), for example:

1. Who decides on the preferential terms of payment for children's meals in preschool educational institutions?

a) MES;

b) the department of education at the appropriate level;

c) the head of preschool education institutions;

d) the local government body.

2. Orders on the organization of children's meals are:

a) formality;

b) administrative and analytical documents, the execution of which must ensure a balanced and nutritious meal for the children;

c) organizational and administrative documents, issued by the head as necessary;

d) on an as-needed basis.

3. What information about teaching staff does the supervisor indicate in the submission to the Attestation Commission by October 10?

a) position and terms of training;

b) position, length of service, education, terms of the advanced training;

c) position, education, results of preliminary attestation, what the applicant is applying for;

d) all are correctly listed.

4. Who conducts tariffing in an educational institution?

a) the head together with the chairman of the trade union committee;

b) the tariffing commission, created by the head of the institution by appropriate order;

c the head, agreeing with the trade union committee;

d) department of education.

After completing the computer-based testing, masters can get the results of the National Scale control.

Having analyzed the results of the study, we can conclude that the use of computer-based testing is an effective and relevant method of testing knowledge:

- saves the teacher's time,
- it promotes activity, organization, and interest of master students-future supervisors, encourages them to study the material qualitatively, and allows getting an objective assessment,
- raises the quality of the masters' preparation for the practical training, systematic monitoring of the quality and dynamics of their learning achievements;
- statistical data on the individual progress of each master;
- assists in creating a computer databank of learning achievements over a long period of study;
- intensifies the educational process by expanding the amount of didactic material in the classroom;
- creates opportunities for creative and practical application of knowledge, abilities, and skills and the ability to perform tasks independently, and self-control in their activities.

So, computer-based testing is an effective component of the educational process. The current state of development of information technologies and their widespread use in education satisfies the requirements of objectivity of the assessment obtained, and the quality of the control process.

The information space is formed based on the use of both print and electronic technologies (see Fig. 2).

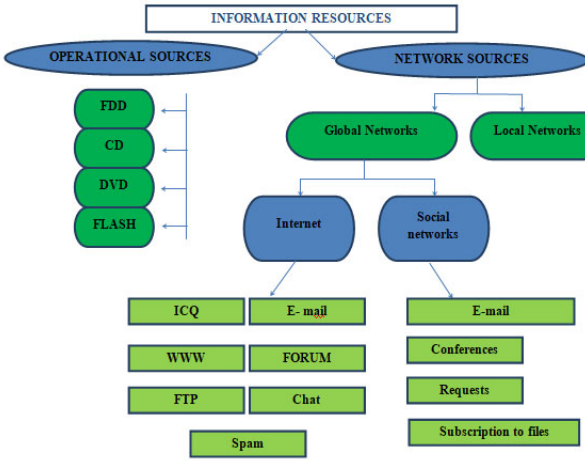

Fig. 2. Information space is formed based on the use of both print and electronic technologies

A wide range of functionality of services is actively working in the educational process: Diigo, YouTube, Google Drive, FreeMind, Blogger, Twitter, Facebook, LinkedIn, iGoogle, and Webinar.

Diigo – personal information management system The service is designed to store links to different sites and fragments of text on pages of sites. Masters can store personal and public bookmarks. The service also allows creating groups and inviting users. In groups, bookmarks can be placed on specific topics.

The service can be used for collective work of future majors with didactic and educational materials: highlighting the main thing, making bookmarks, etc.

Google Drive – the main purpose of the service is to create, store, and edit online, between users. The instructor can view documents online and provide access to them to undergraduates. The service supports collaborative work with documents.

With this service masters can create text documents, tables, presentations, and teachers can create forms (test form), and drawings (charts, graphs, etc.). Teachers can conduct surveys and tests, organize the collective discussion of some material, etc.

Free Mind – **Knowledge Maps** (cognitive maps, mental maps) - schemes in which different ideas, tasks, theses are visually represented, connected with each other, and united by a common idea.

With the help of this service, it is possible to structure information in the form of schemes and provide it to Masters.

Edublog - this is an educational blog for teachers and masters and institutions of higher education.

Webinar – a platform for webinars. The service provides an opportunity for the instructor (moderator, trainer, consultant) to pass on information, and for participants to receive information and learn through a virtual classroom, where you can hear and see each other, no matter where you are. Especially important are the possibilities: to show presentations to participants, to draw on the virtual board, to do active questioning. For more interactivity, participants can ask questions in the online chat window.

The authors of the program created a system of information and didactic support for the formation of managerial competence of the future head of preschool education with ICT tools: a selected media library, which includes multimedia training tools designed for masters of preschool education of higher education; developed practical lessons using ICT to form managerial competence of the future head of preschool education institution; compiled a catalog of educational institutions of higher education; developed a set of educational tools for the formation of managerial competence of the future head of preschool education institution.

For example:

1. **Cross sense Exercise** (introduction to the topic) Cross sense is a new generation associative puzzle.

Task: find the associative connection between the pictures. Determine what the task will be. (See Figure 3.)

Fig. 3 Define the concept that is coded in the cross sense

Picture Gallery

The drawings depict episodes that reveal the level of preschool education a child receives in a preschool institution, family, or with the help of an individual as a result of a consistent, systematic, and purposeful process of mastering the Basic Component of preschool education, which includes: (each set, sign what it includes). (See Figure III)

Fig. 4. I - Formation of the basics of social adaptation and life competence of the child:

II – Formation of the basics of the child's life competence: (see Fig.4)

Fig. 5. III – nurturing elements of a nature-oriented worldview: (see Fig. V)

Fig. 6 Tree of Knowledge

In front of you is the “Tree of Knowledge”. (See Figure VI).

Fig. 7. There are the fruit-questions on it.

Questions of varying difficulty. Everyone takes turns tearing down and giving answers to a given question.

Question:

1. Preschool education promotes...
2. The legislation of Ukraine on preschool education...

3. The state recognizes...., provides....
4. The components of the education system are …..

4. Discussion

The modern educational process requires active forms of learning. In the context of the latest requirements, graduates of higher education institutions should master thorough theoretical knowledge, develop sustainable abilities and skills, acquire creative qualities, improve critical thinking, form a valuable attitude toward future professional activities, and the ability to communicate productively. This awareness generates a significant number of practical steps to implement new approaches to optimize various forms of the educational process, which are of significant research interest, worthy of further study.

Social networks such as WhatsApp or Facebook, tools like blogs, and cloud services are educational tools to develop knowledge on the principles of interactivity and cooperation, organize social order according to innovative criteria in the system of higher education, and the position of the future leader to managerial activity is updated. Taking this into consideration, the leading direction of the educational process of higher education institution becomes the preparation of future leader for managerial activity, and competence in a modern educational environment, because the creative component of education is formed significantly, and the participation of all participants of educational process is increased, the creative search independence of master students is strengthened, the concepts of problem and interactive training, connected with the use of information and communication technologies are especially urgent. During such educational process, the future head of preschool education institution develops the ability to communicate with the teacher, to adapt in the information space, to be organized, and independent, to promote self-realization, to be responsible for themselves and for the group (collective), establish social contacts in social networks. educational tools for the development of knowledge on the principles of interactivity and cooperation, creating a final product, arguing the fact online, solving creative, problematic problems, modeling situations, including analytical and critical thinking, knowledge, search abilities.

Therefore, during the formation of linguodidactic competence of a future specialist ICT with their ability to use sound and animation, all kinds of visualization techniques make it possible to qualitatively visualize the educational process, individualize, get quick access to information sources, carry out real communication with native speakers. Along with the significant intensification of teacher training for elementary school, ICT allows a rapid, reliable, and objective survey and assessment of the achievements of applicants for education. Interactive models with the help of mainstreaming technology provide for the training of a future specialist at a qualitatively new level. After all, modern applicants for education effectively and actively absorb information when using ICTs. Such organization of training stimulates independent productive work of students with large volumes of information.

Various software products for the study of the modern Ukrainian language, methods of teaching the Ukrainian language provide an opportunity to intensify the learning material, increase the level of development of psychological mechanisms (imagination, memory, attention), to intensify thought processes.

5. Conclusions

So, information and communication technologies update the problem of preparing a young head of a preschool educational institution who can effectively resolve professional, managerial tasks in the educational, information space, and similarly causes a sustainable reformatting of the system of training masters in higher education. ICT tools play a leading role in the creation of new educational policies and projects because they motivate the way of access to knowledge. They facilitate access to education both in person and at a distance, and the readiness to manage in a renewed educational environment is a necessity for all managers.

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