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**DEVELOPMENT OF GENERAL CULTURE IN PRESCHOOL
TEACHERS BY MEANS OF MULTIMEDIA**

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Abstract

Purpose: The paper addresses the topical issues of general culture development in preschool teachers through multimedia. It is revealed the main directions for their professional development and personal enhancement. The article also reveals the possibilities of using interactive technologies in the development of preschool teachers' general culture. They are determined by the constant growth of scientific psychological-pedagogical and professional information scope needed to maintain the required professional and general cultural level of teachers; the variability expansion of education content, methods, and teaching aids (multifunctional technical means) requiring educators to make choices in order to use them effectively; increasing influence on children of uncontrolled information flows coming from mass media and the need to take into account the opportunities of media education in preparing children for life in the information society with new requirements which brings society closer to the teaching profession and is characterized by its involvement in the active pedagogical search. **Methods:** the theoretical method was used as a basis for the research. **Results:** developed modern scientific views on the problem in question are analyzed. The article describes the concepts of "computer technology", "computer as a teaching aid", "multimedia training tools". The peculiarities of the use of multimedia technologies as a means of organizing pre-school education professionals' training in postgraduate education are identified. **Discussion:** the development of general culture in preschool teachers by means of multimedia is a necessary component of their continuing education as well as the systematic formation of information culture.

Keywords: preschool teacher; culture; motive; professional competence; multimedia

1. Introduction

At the present stage of social development, the volume and complexity of information flows are constantly increasing. Therefore, the formation of the national education system requires the modernization and development of all education levels, including teachers' postgraduate education, i.e. professionals with higher education as well as some professional and life experience. At the moment, it is important to increase the professional level of pedagogical staff and more specifically of preschool teachers. Modern postgraduate education is in a constant active search for ways to improve and optimize the process of improving pedagogical university graduates' professionalism. The introduction of multimedia technologies is of an interactive nature. It will promote the development of competence, mobility, creative thinking, and the ability to solve professional and pedagogical tasks in

the changing conditions of the educational process at modern preschool institutions.

2. The analysis of recent research and publications on the theory and practice of media education in contemporary scientific discourse shows the actualization of this problem. General aspects of the development of mass media and the model of media education are covered in the works by D. Buckingham, L. Zaznobina, D. Considine, L. Masterman, S. Penzin, Yu. Usov, O. Fedorov, O. Sharykova, E. Hart, R. Hobbs, etc.; media education psychological and pedagogical foundations are in the scope of scientific interest of O. Volosheniuk, L. Zaznobina, V. Ivanov, Y. Rabinovych, O. Spichkin, O. Fedorov, M. Khilko, S. Cherepynskyi, O. Sharykov, etc.); information and computer technology in the pedagogical process is analyzed in the works by

R. Williams, B. Hershunskyi, V. Hlushkov, A. Ershov, K. McLean, Yu. Mashbytsia, S. Peipert, E. Polat, etc.); conceptual principles of computer literacy and teachers' information culture formation are discussed in the papers by Yu. Zhuk, V. Lapinskyi, O. Pinchuk, etc.; formation and development of the creative personality of the teacher in the information society are addressed in the works by V. Bondar, I. Ziazun, N. Kuzmina, N. Moiseiuk, N. Nychkalo, S. Sysoeva, etc.); development of professional competence in continuous pedagogical education is studied by S. Vershlovskyi, L. Danylenko, H. Yelnykova, Y. Kuliutkin, V. Maslov, N. Nychkalo, V. Oliinyk, V. Onushkin, V. Pikelna, N. Protasova, L. Pukhovska, M. Romanenko, V. Semychenko, T. Suschenko, P. Khudomynskyi, T. Shamova, and others). Given the importance of contemporary research, the problem of developing general culture in pre-school teachers by means of multimedia requires new approaches to its systematization and theoretical generalization. Special attention should be paid to researching the development of pre-school teachers' general culture using the conducted general scientific analysis of this concept.

3. The research purpose and objectives lie in tracing the evolution of views on the professional and personal qualities of the teacher; outlining these concepts from the point of view of modern scientific research which can serve as a basis for the development and realization of the issues of preschool teachers' professional competence.

4. Research materials and methods

The theoretical method was used as a basis for the research.

5. Research results

According to the UNESCO Education Glossary, the term "informal education" is used to refer to this activity [International Standard Classification of Education ISCED 2011 / UNESCO]: forms of education that are purposeful or carefully planned, but not institutionalized, that is, less organized and structured than formal and non-formal education. Informal education may include educational activities in the family, in the workplace, at the place of residence and in daily life; its orientation is determined independently, by the family or by society.

In Ukrainian didactics, these concepts are not generally accepted and are considered to be

borrowed and rare. However, the varieties and ways of providing continuing education to preschool teachers are reasonably explained through formal, non-formal and informal education. Particularly popular is the lifelong learning informal form, as it does not imply conventional forms of learning organization (classroom, non-classroom), can be organized on an individual schedule and vary according to new conditions or opportunities of the teacher. That is why it is called everyday education.

The educator has the opportunity to choose both the individual schedule of boosting general culture and combine it with a group (attending courses and participating in seminars or webinars) and collective one (traditional approach using lectures, seminars or workshops). The educator can learn new knowledge on their own; and it is also possible to engage friends, colleagues or family. This is the most versatile opportunity to develop general personal culture and to involve others in the process.

Sometimes gaining new knowledge may take place subconsciously, when traveling, making acquaintance with interesting people, so such a form is also referred to as spontaneous.

The formation of preschool teaching employees' professional competence is connected with their general culture development, and it depends, first of all, on their motivation. This component is a consequence of cognitive activity and is characterized by the amount of knowledge, the thinking style of the teacher, and, in general, it serves as an indicative activity basis.

Motivation plays a crucial role in the self-organization of pre-school teachers' continuing education, giving rise to the organization of self-educational activities and the rational use of their time. After all, the work on professional capacity building is not situational and takes place not only during the period of professional activity but throughout life.

The educator who seeks to enhance general culture is looking for the best ways to educate themselves. The universal solution is to use multimedia resources. Multimedia tools provide a complete range of new knowledge from different fields to fit any needs. The teacher should rely on lessons and performance issues based on their own experience. And often professional knowledge cannot fully correspond to the full range of required competencies, skills and abilities. That is why holistic general development and high general culture are essential for the comprehensive

presentation of learning material and the preparation of the younger generation.

Multimedia tools include devices for speech input and output; scanners widely used nowadays (as they allow to automatically digitalize printed text and pictures on a computer) high-quality video and sound cards, video capture boards that capture images from a VCR or a video camera and transfer them into a PC; high-quality acoustic and video recording systems with amplifiers, speakers, large video screens.

It is distinguished multimedia software and hardware. The latter can be represented as standard tools – video adapters, monitors, optical drives, hard disk drives, and special components - sound cards, CD-ROM drives, and speakers.

Without hardware multimedia software is useless. Software is divided into applied and specialized. An example of applied one is Windows applications that represent information to the user in one way or another. Specialized software is intended for creating multimedia applications - multimedia projects. These include graphics editors, video editors, audio creation and editing tools, and more [1, pp. 153–155].

Thus, the development of general culture in preschool teachers by means of multimedia is a necessary component of their continuing education as well as the systematic formation of information culture. This is determined by 1) the constant increase in the scope of scientific psychological-pedagogical and professional information needed to maintain the required teachers' professional and general cultural level; 2) expanding the variability of education content, methods, teaching aids (multifunctional technical means), which requires educators to make choices in order to use them effectively; 3) increasing influence on children of uncontrolled information flows coming from mass media and the need to take into account the opportunities of media education in preparing children for life in the information society; 4) intensive development of innovative processes in the field of education that cover all areas of activity and encourage teachers to quickly and flexibly change the style of their work; 5) new societal requirements to the teaching profession, involvement in the active pedagogical search [2, p. 83].

Postgraduate pedagogical education is considered as a purposeful, specially organized and managed system of a person's permanent social experience formation, as an objective condition for the

development of society in accordance with social needs [Law of Ukraine "On Higher Education" of 25/12/2002:as amended by law No. 380-IV (380-15)., p. 6]. Its purpose is to form the teacher of the 21st century who is able to carry out professional activity, to implement educational policy as the state's priority function, and to ensure the development and self-realization of the individual satisfying their educational needs.

The main areas of professional and personal development of the teacher are:

1. Broadening the outlook:

- familiarizing oneself with the principles of modern state educational policy;
- developing economic literacy;
- mastering the elements of information culture;
- achieving a high cultural level;
- providing quality psychological and pedagogical support for the educational process;
- ability to develop an individual style of pedagogical behavior.

2. Meeting the specific need for practice-oriented knowledge.

3. Ensuring the developmental effect of the acquired knowledge, carrying out real practical tasks that arise in the process of pedagogical activity.

In the conditions of a rapid increase in the number of personal computers and the improvement of their technical specifications, the task of optimizing the development of preschool specialists' needs for self-education through the practical application of information technologies as a highly effective pedagogical tool contributing to improving the qualification level spending considerably less time, is of particular importance.

For ensuring quality results in qualified teachers' training, multimedia resources play a special role.

It's worth noting that multimedia is an interactive system that delivers motionless pictures and motion videos, animated computer graphics and text, speech and high-quality audio. The term itself is of a Latin origin spread through English sources ("multy" - multiple, complex and "media" - medium, tool, method). In Latin - "Media" means "multiple aids" or "diversified surroundings".

Multimedia technology (creating, processing, storing and computer-assisted visualization of text, graphics, audio and video information in digital format) is still one of the leading advancements in the use of computers in education today.

Due to the fact that multimedia technologies are complex, in order to refer to some of their elements it has been recently used independent terms, where the noun "multimedia" becomes an adjective, e.g. multimedia system, multimedia programs [3, p. 55]

The use of multimedia technologies can be general or individual;

- for professionals or an average user;
- for interactive and non-interactive application;
- for the use of information on-site or off-site

[4, p. 52].

The use of multimedia as a tool involves the creation of new forms of mental, mnemonic, and creative activity, which can be considered as the historical development of human mental processes and the further elaboration of activity historical development principles, taking into account the conditions for the transition to post-industrial society. The nature and specificity of multimedia training tools influence the formation and development of human mental structures, including thinking. In the open and remote computer-generated educational environment, the processes of multimedia information organization and interpretation are essential.

It can be encoded and presented on the display screen in the form of mathematical symbols, tables, graphs and diagrams, process images supplemented by sound, color image, etc. Multimedia information environment has a significant impact on the basic characteristics of thinking. The learning environment facilitated by multimedia contributes to the development of the teacher's thinking. A computer is a powerful tool to help to understand many phenomena and patterns. At the same time, only education providing teachers with a new type of thinking skills different from thinking formed based on the manipulations with printed information and the use of mass communication can be considered effective.

Psychologists and educators face the task of conceptual consideration of the development of human activity and mental functions of the individual in terms of technology and the use of multimedia tools in open education. The pre-computer education system was too focused on "rational" thinking, leaving no room for innovative ideas, suppressing attempts to question authority, and encouraging standard behavior. When using multimedia tools and resources in open and distance learning, the knowledge structure is formed as an orderly organized network where educators choose

topics to study. According to P. Halperin, the scholar investigating the psychological differences between a human instrument and ancillary means used by animals, a fixed application method which appears to a man as a new objective reality for the instrument, along with its natural properties, is a socially determined way of its use.

Thus, at the first stage, a multimedia tool or resource is the subject of a learning activity during which knowledge about its operation is acquired, languages and techniques of interaction with it are learned, and operating skills are mastered. At the second stage, this multimedia resource is transformed into a means of carrying out any educational or professional tasks. This transformation of the subject into an instrument determines the development of human activity and thinking, involving the restructuring of habitual actions, forms, and modes of activity.

In the process of qualified preschool professionals' retraining, the pedagogical expediency of using a computer is determined by pedagogical goals that can only be achieved through its use, that is, through its computing and processing capabilities.

Some basic pedagogical goals for using a computer are the following:

1. Personality development, their preparation for a comfortable life in the information society.
2. Realization of the social demands necessitated by the informatization of modern society.
3. Intensification of all levels of the educational process.

The formulated pedagogical goals determine the main directions of information technology introduction in education:

1. Usage of a computer as a learning tool that enhances the teaching process increasing its efficiency and quality.
2. Use of IT as a means of the perception of the world around us and self-knowledge.
3. Use of IT as a means of developing the personality of the teacher.
4. Use of IT as an object of study (for example, as a part of the course of mastering computer science).
5. Use of IT as a tool for educational process information, methodological support, and management at an educational institution.
6. Use of IT as a means of communication for the popularization of advanced pedagogical technologies.

7. Use of IT as a means of control process automation, the correction of learning outcomes, pedagogical computer testing, and psychodiagnostics.

8. Use of IT as a means of the automation of processing experiment results (laboratory, demonstration) and training equipment management.

9. Use of IT as a means of organizing intellectual leisure, developing games.

Nowadays, informatization has significantly influenced knowledge acquisition processes. New information and communication technologies allow intensifying the educational process, increase perceptual speed, understanding and the depth of the large scope of acquired knowledge

For the development of general and professional culture of the teacher, continuing education provides a range of communication technologies, such as the Web, chats, forums, interest groups, news sites of various organizations and associations. In order to use these media resources, it is not necessary to go, for example, to a library or an archive; all it takes is to monitor the pages of these institutions to receive updated information. Undoubtedly, it will not completely replace live communication, but it will offer insight into topics that are of interest for self-improvement.

In the International Standard Bibliographic Description, electronic resources are defined as computer-managed information resources, including those requiring the use of a peripheral connected to a computer [5]. The phenomenology of the term "electronic resources" consists of a number of concepts, such as the digital form of information capture, computers and software for retrieval and management, as well as the electronic medium for its dissemination.

Among the typology and genre features of multimedia resources in the system of continuing education of preschool pedagogical staff, electronic encyclopedias and galleries play an important role

In particular, there are a large number of Web museums and Web galleries on the Internet that allow you to view various museums or private collections. Their purpose is to meet the information needs of the user in different areas of human activity. A virtual gallery is a set of virtual exhibitions $VGal = \{VExhibitionx\}$. By definition, the Web Gallery may include one or more virtual exhibitions formed on a particular classification basis. Each exhibition contains one or more objects (exhibits), some of which may belong to different

exhibitions at the same time. They are built on a "category-object" basis. Such galleries are inherently of an educational nature.

A virtual object (exhibit) is a set of attributes associated with the detection, movement, exploration, status display, and destruction of an object. A virtual object can be represented using five components: $VExhibit = (Appear, Transf, ResearchPast, MultiMedia, Destruct)$, where *Appear* is the set of attributes associated with object detection; *Transf* is a set of attributes associated with the movement of an object, such as moving from one museum to another or from one exhibition to another; *ResearchPast* is the set of attributes associated with the study of what happened to the object in the past; *MultiMedia* is a set of attributes that reflect the state of the object using multimedia; *Destruct* is the set of attributes associated with the destruction of an object.

A virtual room is a set of virtual objects grouped according to a single criterion or criteria that are submitted for viewing in a specific order. A virtual room is a pair of $VRoom = (VExibite, PathPreview)$, where *VExibite* is a set of objects grouped by one or more criteria, presented for viewing in a virtual room; *PathPreview* is the order of viewing virtual objects in a virtual room. Virtual exposure is defined as $VExhibition = (VRoomr, Denoted)$, where *VRoomr* is the set of virtual rooms; *Denoted* is the set of features that underpin virtual exhibitions in virtual rooms.

It is also advisable for educators to use multimedia encyclopedias as reference electronic publications on one or more fields of knowledge and practice, organized in different ways, supplemented with audio and video materials, search and selection software for gathering learning materials. [16]. Since they are automated, they are easy to use for search.

The term "multimedia encyclopedia" is interpreted as a structured collection of textual information, graphics, videos and audio clips on a specific matter. The term "multimedia encyclopedia" refers to a very specific product. Besides, a large amount of material in it is optional. It is a very popular kind of material presentation. Electronic encyclopedias may contain not only text but also illustrations, video demonstrations, animations or 3D graphics.

There are many educational encyclopedias. An essential feature of a multimedia encyclopedia is its hypertext structure. Essentially, hypertext is a tool that allows you to view the contents of an

encyclopedia not only in sequential order. The text includes so-called hypertext links that make it possible to quickly navigate to sections of the encyclopedia associated with the current section. Moreover, hypertext is an integral part of online publications, where, as a rule, a user is redirected from one page to another following a link. Multimedia encyclopedias may include music tunes, speech, and noise effects. Voice is particularly widely used in multimedia encyclopedias. An off-screen voice that focuses on the basic ideas presented on a particular encyclopedia page or simply reads that page out loud is already standard for multimedia encyclopedias.

Electronic multimedia encyclopedias from various fields of knowledge are of great help for preschool teachers, many of which, along with multimedia publications on history, biology, literature, and arts, are used in the process of delivering classes to children.

In the process of self-development, educational, scientific and methodological Internet resources designed in the form of electronic libraries, dictionaries and encyclopedias, can be of use for preschool teachers. They provide open access to full-text information resources in an electronic format - textbooks and study guides reading-books and fiction, historical sources and popular scientific literature, reference publications and more.

The perception of material when using multimedia is enhanced by the didactic capabilities of the computer, such as visualization, accentuation, and color image dynamics.

6. Conclusions

To summarize, we can say that the use of multimedia resources in the system of postgraduate education of preschool teachers allows, in the first

place, to change and enrich the content of pedagogical education, and secondly, to activate educational and cognitive activity.

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Розвиток загальної культури педагогів закладів дошкільної освіти засобами мультимедіа

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Мета: статті висвітлені актуальні питання розвитку загальної культури педагогів закладів дошкільної освіти засобами мультимедіа. Розкрито основні напрями професійно-особистісного розвитку педагогічних працівників закладів дошкільної освіти. Описано можливості використання інтерактивних технологій у розвитку загальної культури педагогів ЗДО, що визначається постійним зростанням обсягу наукової психолого-педагогічної та фахової інформації, потрібної для підтримання необхідного професійного та загальнокультурного рівня педагогів; розширенням варіативності змісту освіти, методів, засобів навчання (поліфункційні технічні засоби), що вимагає

від педагогів уміння здійснити вибір з метою ефективного їх використання; зростанням впливу на дітей неконтрольованих потоків інформації, що надходять із засобів масової комунікації, та необхідністю врахування можливостей медіаосвіти у підготовці дітей до життя в інформаційному суспільстві новими вимогами, що ставить суспільство до педагогічної професії, залученням до активного педагогічного пошуку. **Методи:** в якості методу побудови дослідження було використано теоретичний метод. **Результати:** проаналізовано сучасні погляди науковців щодо означеної проблеми. В статті розкрито поняття «комп'ютерні технології», «комп'ютер як технічний засіб навчання», «мультимедійні засоби навчання». Визначено особливості використання мультимедійних технологій як засобу організації навчання фахівців дошкільної освіти у післядипломній освіті. **Обговорення:** розвиток загальної культури педагогів закладів дошкільної освіти засобами мультимедіа є необхідною складовою їх неперервної освіти та систематичного формування і становлення інформаційної культури.

Ключові слова: педагог закладу дошкільної освіти, культура, мотив, професійна компетентність, мультимедіа

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Развитие общей культуры педагогов учреждений дошкольного образования средствами мультимедиа

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Цель: В статье освещены актуальные вопросы развития общей культуры педагогов учреждений дошкольного образования средствами мультимедиа. В связи с постоянным ростом объема научной психолого-педагогической и профессиональной информации, влиянием на детей неконтролируемых потоков средств массовой информации, новыми требованиями, которые предъявляет общество к педагогической профессии; охарактеризованы возможности использования интерактивных технологий, направленных на профессионально-личностный рост педагогов учреждений дошкольного образования. Представлена вариативность содержания образования, методов, средств обучения (полифункциональные технические средства). **Методы:** В качестве метода построения исследования был использован теоретический метод. **Результаты:** Проанализированы современные взгляды ученых на данную проблему. В статье раскрыты понятия «компьютерные технологии», «компьютер как техническое средство обучения», «мультимедийные средства обучения». Определены особенности использования мультимедийных технологий как средства организации обучения специалистов дошкольного образования в последипломном образовании. **Обсуждение:** Развитие общей культуры педагогов учреждений дошкольного образования средствами мультимедиа является необходимой составляющей их непрерывного образования и систематического формирования и становления их информационной культуры.

Ключевые слова: педагог учреждения дошкольного образования, культура, мотив, профессиональная компетентность, мультимедиа.

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