Implementation of the Information and Communication Technologies into Activities of a Pedagogue

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Abstract. This article is devoted to using the information and communication technologies in education and their implementation into activities of pedagogues of a pre-school educational organization. Topicality of the selected issue is related to the current process of informatization of the Russian education. A sphere of scientific sectors is outlined within which the informatization of education and organization of the process of pedagogues' acquiring the information and communication technologies are studied. Theoretical studies are viewed which shows that insufficient level of innovation in pre-school education is caused by the low level of informatization in a pre-school organization. It is shown that information society sets new requirements to educational systems – they have to become effective and innovational, which will allow each pedagogue to realize their potential. The indicators and results of pedagogues' acquiring the information and communication technologies are presented. The main attention is paid to the methodological provision of the process of pedagogues' acquiring the information and communication technologies and conditions of its implementation. The events held with pedagogues in "School of the information and communication technologies" are very interesting. The material has large practical value and allows using the offered program for pre-school educational organizations' pedagogues' acquiring the information and communication technologies. These issues are of a many-sided character.

Keywords: Informatization of education
Information and communication technologies
Pre-school educational organization · Pedagogues · Methodological provision
Socio-psychological · Functional conditions

1 Introduction

Modern development of the information and communication technologies leads to development of economy and large transformation of society, including informatization of the educational sphere [5]. New possibilities for implementing new methodologies and pedagogical developments into the pedagogical practice provide the pedagogues with scientific progress and informatization of pre-school education. The developments could be aimed at implementation of innovational ideas of instructional educational process, which is a necessary condition of development of pre-school education. That's why

organization of work for creation of the information and educational space of a pre-school organization is an important factor of realization of the federal state educational standard of pre-school education.

The federal state educational standard of pre-school education supposes the modern pedagogue's possessing the skill to use a computer and modern multimedia equipment, as well as to create his own educational resources and use apply them in his pedagogical activities.

I.V. Robert distinguishes the main directions of implementing the means of new information and communication technologies into education. She states that the current acceleration of scientific and technical progress, which takes place against the background of implementation of automatized systems, microprocessors, program management, robots, and processing centers into production, leads to the necessity to teach the growing generation which would be able to participate in the new stage of the modern society's development, related to informatization. I.V. Robert speaks of uniqueness of the possibilities of new information and communication technologies [5, p. 30]. The information and communication technologies stimulate development of child's personality and preparation for living in the information society. Informatization of society makes us use information technologies, acquiring the child to the information and communication technologies, performing the social order of the society. All levels of the educational process take place with more intense and results [7].

An important advantage is the possibility to use the methods of the information and communication technologies as automatization of the processes of control and correction of the activities' results and computer pedagogical testing and psychological diagnostics. They allow for automatization of processing of the results of experiment (laboratory or demonstration). Application of the means of the information and communication technologies for organizing intellectual leisure and developing games is very interesting as well. It is impossible to overestimate the advantages of the methods of the information and communication technologies during studying.

A modern pedagogue must possess knowledge on the information and communication technologies and be a professional in using them in the educational process.

The order of the Ministry of Healthcare and Social Development of the RF dated August 26, 2010, No. 761n established the "Qualification guide for offices of managers, specialists, and public officers", which provides the requirements for pedagogues for using the information and communication technologies.

According to the normative documents, a pedagogue of pre-school educational organization should develop and use in his professional activities the information and communication technologies and be a guide into the world of new technologies for the child within the pre-school education.

Unfortunately, as the practice shows, not all pedagogues possess the information and communication technologies. There are no special programs and methodological guides that would help pedagogues in pre-school establishments to effectively use the information and communication technologies (hereinafter – ICT) in their work. This determines the topicality of the research at the socio-pedagogical level.

At the scientific and theoretical level in the process of studying the theoretical foundations of pedagogues' acquiring the ICT, the following provisions of L.S. Vygotsky on the necessity for integration of technical tools with psychological

tools were determined, which provides children with wide possibilities of development in all spheres of studying. Theoretical analysis of studies [1, 4, 6, 7, 9] shows that using the ICT means in the modern pre-school education is one of the most important factors of increase of the educational process effectiveness.

Together with elaboration of the problem at the scientific and theoretical level, analysis of scientific studies and pedagogical practice shows insufficient theoretical and methodological elaboration of the foundations of applying the ICT in pre-school education, pedagogues' readiness for acquiring the ICT, and lack of methodological provision of this process.

The purpose of the article is to study the level of pedagogues' acquiring the information and communication technologies and to develop the methodological provision of this process that stimulates the effective professional activities of peda-gogues in the sphere of pre-school education.

2   Description

Special attention is paid to organization of experimental work, its course, and the received results. For evaluating the level of pedagogues' acquiring the pre-school organization of the ICT, the following indicators were set:

1. Capability to perform information search. The skill to search for information is a basis for acquiring knowledge for a pedagogue. Information sources include pro-fessionals, documents, and communication means. At present, this takes place through the communication means – mass media, mobile devices, computer net-works (blogs, social networks, etc.). This article emphasizes on the search for information in the Internet, which is an open educational space.
2. Capability to work with finished program and methodological complexes. The program and methodological complex is a complex of program and methodological means for supporting the process of teaching a certain course or its topic [8]. The program and methodological complexes allow pedagogues to plan their work in view of the federal state educational standard of pre-school education, take into account individual peculiarities of children, select games and exercises according to the educational goal, etc.
3. Capability to enter remote educational activities. Remote educational activities are becoming more popular in pre-school educational organizations (consultations, virtual exhibitions, etc.).

The research was performed on the basis of kindergartens of the autonomous non-profit organization "Planet of childhood 'Lada'" in Tolyatti; more than 150 ped-agogues were surveyed. The following questions were asked: Do you use the search systems during solving the pedagogical tasks? Which ones? Do you use the ICT for communication with children and their parents (legal representatives)? Do you plan online activity? Do you use text editor in your work? What information can you offer for posting on the kindergarten's web-site?

Analysis of questionnaires showed that 67% of the respondents use the Yandex search engine, while the rest use Google. The survey showed lack of capability to use

the information search, for 17% of the pedagogues are dissatisfied with the search results, and 33% cannot find the required information in the search systems (total 50%). Besides, only 10% use special symbols and thematic catalogues. 90% of the surveyed pedagogues do not use these resources. Pedagogues of the kindergarten face difficulties during search for information.

Analysis of questionnaires showed that only 50% of the respondents use the ICT for evaluation and monitoring, and the rest do not use such possibility and perform all routine work manually. However, 90% of the pedagogues have some skills with text editor and could have used it more often in their work. Only 10% of the respondents use for organization of educational activities the software means for presentations.

The results of the survey show that 90% of the respondents are ready to share their pedagogical experience with the help of an open educational resource – the kindergarten's web-site.

Most of pedagogues (67%) wish to conduct remote educational activities, but a lot of them lack technical knowledge on the method of information search and work with ready program and methodological complexes and require additional work for enlightenment on the possibilities of the ICT.

During analysis of digital catalogs, the catalogs for pedagogues attestation, catalogs of methodological materials, photo albums, catalog of videos, and archive of materials of the pre-school educational organization's web-site were found. With the methodological material for pedagogical activities with the use of the ICT there are no technical means for implementation of the ICT.

We supposed that the process of pedagogues' acquiring the information and communication technologies is possible if:

– the essence of the process of pedagogues' acquiring the information and communication technologies in the system of interconnected pedagogical notions in view of the work specifics is opened;
– the methodological provision of the process of pedagogues' acquiring the information and communication technologies is developed and implemented;
– the experimental substantiation of the criterial tools necessary for objective evaluation of the level of pedagogues' acquiring the information and communication technologies is given.

Based on analysis of ascertaining experiment, for pedagogues' acquiring the information and communication technologies during organization of open educational space, the following tasks are set:

1. Stimulating development of the pedagogues' skills to search for information with the help of search engines.
2. Developing pedagogues' skill to work with ready program and methodological complexes.
3. Preparing to conducting remote educational activities.

The Internet Day was organized in kindergartens, which helped to attract the pedagogues' attention to using the virtual space, its possibilities and perspectives. The exhibition stands with the history of the Internet, short information on its work and possibilities of use are very interesting.

A lot of attention was paid to the work of creative groups, while pedagogues got acquainted with the Internet, diversity of search systems, special symbols for optimal search of information, and acquired the basic skills of work with thematic catalogs.

The "School of the information and communication technologies" was organized, with regular "consultation lessons", the main topics of which are the following:

– "Learning text editor".
– "Compiling presentation".
– "Selecting web browser".
– "Optimal usage of search engines".
– "You've got mail! Acquainting with e-mail".
– "Kindergarten's web-site – my ticket to the open educational space".
– "Compiling diagnostics with the help of computer".
– "Social networks".
– "What is WEB 2.0?".
– "Program and methodological complexes", etc.

In the course of work of the "School of the information and communication technologies" the participants performed the tasks related to application of a new program in the educational activities. For example, after acquisition of text editor, the pedagogies had to compile a consultation for parents and prepare the planning of the educational process in the digital form.

Special attention was paid to the methodological provision aimed at implementation of the developed program. The program for pedagogues' acquiring the ICT supposes usage of the basic level of approbation and creation of the proprietary educational resources. The Program includes the following blocks:

1. "Implementing the ICT as a condition of realization of the federal state educational standard".
2. "Practical use of the PhotodexProShowProducer software for creation of professional presentations.
3. "Creating interactive publications at the Calameo service".
4. "Creation a personal web-site at the ucoz.ru web service".
5. "Creation a personal web-site at the wix.com web service".
6. "Studying MicrosoftPowerPoint – creating multimedia presentations".
7. "**Audacity** – sound editor with a wide set of professional capabilities".
8. "Vocalremover – online service for processing audio files".
9. "Nero – multifunctional multimedia package for working with CD and DVD, sound and video".
10. "PinnacleStudio – software for professional work with video".

The methodological provision was conducted with the following conditions: socio-psychological (solving the problems of formation of a pre-school organization's group, developing employees' activity, developing each member's personality, and coordinating various relations); functional (provision of activities of a pedagogical group, scientific work, increase of effectiveness, high quality of children training, and additional training of personnel) [2, p. 158].

3   Results

As a result of experimental study, large changes in the positions of pedagogues of pre-school educational organization as to using the information and communication technologies in their activities happens. They showed not only knowledge of software and specifics of technical work but also the skill to work with main applied software and multimedia programs, and to use the Internet. Pedagogues of a pre-school educational organization began to use the means of the ICT during planning of pedagogical activities, evaluation and creation of reports for children training, and learned new programs.

4   Conclusions

Implementation of the contents of the program blocks ensures the following: improvement of the process of acquiring the information and communication technologies by pedagogues; creation of integrated information environment: methodological guidebooks and recommendations for acquiring the information and communication technologies for pedagogues.

Using the information and communication technologies in a pedagogue's work allows for enrichment and renovation of the educational process in a pre-school educational organization and for increase of its effectiveness. The performed research has not analyzed all aspects of the studied issue due to its multi-aspect character.

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