EXPERIENCE-TECHNOLOGIES IN THE DEVELOPMENT OF INFORMATION READINESS OF PEDAGOGICAL EMPLOYEES FOR THE PERFORMANCE OF THEIR PROFESSIONAL ACTIVITIES

Abstract. The article features an innovative approach to the development of information readiness of pedagogical staff for the performance of their professional activities in full-time distance postgraduate learning.

The essence and components (motivational, cognitive, operative and personal) of pedagogical staff’s readiness for professional activity are characterized. Indicators of the distribution of teachers by levels of their information readiness (low, medium, high) for professional activity are given.

The article also highlights methodology and results of the empirical study of the levels of pedagogical staff’s information readiness for their professional activity, testifying to the insufficient level of development of such readiness with a considerable number of educators. It is shown that a high level of such readiness is peculiar to only one-tenth of the participated educators, who have deep and complete knowledge, skills and experience of work with information. They are characterized by developed personal qualities that provide active character and responsible attitude to the professional activity in the conditions of uncertainty. Other respondents have a partial (or nonexistence) awareness of possible negative consequences from the use of information, insufficient willingness to bear responsibility, as well as an inability to understand the regularities of information processes in the context of uncertainty, etc.

The essence of experience technologies of the development of information readiness of pedagogical staff to professional activity in conditions of part-time distance teaching in postgraduate education is revealed. It also highlights the specific features of the implementation of experience technologies regarded as a tool for specialist training on the basis of practical experience and their application in the process of professional development. It emphasizes the effectiveness of experience technologies in non-linear forms of training, which create the conditions for learners to make a conscious choice of learning content and forms of their own professional development.

Keywords: information readiness for professional activities; pedagogical employees; postgraduate education; full-time distance learning, experience technologies.

1. INTRODUCTION

Problem statement. The current stage of social development is characterized by a rapidly growing role of information and information technologies. As a consequence, the
information readiness of teaching staff for the performance of their professional activities becomes particularly important in regard of their ability to quickly navigate in the information space, to effectively work with the variety of information sources, to seek and process professionally important information, to use digital technologies for the performance of relevant professional tasks.

Thus, the information readiness of teaching staff is of great importance as they are entitled to prepare future generations for life in the digital society, and, accordingly, to choose such forms, methods and teaching tools that would enhance the quality of entire educational process in conditions of dynamic informational environment. According to Kristen Wright, Director of Cisco Research and Open Innovation Center, Cisco Systems, educators need to constantly enrich the educational program with “nutrients of progress” – those components will be faced by the young generation in their future career and life path. According to these components, children will be able to think study and synthesize the information, and ensure the possibility of critical reflection. [1].

At the same time, the analysis of educational practice indicates that a large number of teaching staff do not possess a sufficient level of information readiness for the performance of their professional activities. In particular, it goes about insufficient development of professionally important personal qualities that provide for critical information mastery and operative use of large blocks of diverse information in the pedagogical activity.

Accordingly, the development of educators’ information readiness acquires particular relevance. A special place in this process belongs to the system of postgraduate education, which must function as the instrument for the restructuring of the educational system and, accordingly, ensure the shift of innovative transformations in the educational field to a new level. It is the system of postgraduate pedagogical education that, given the specifics of students' contingent, provides the possibility to create a certain information and communication environment in which, based on the professional experience of educators, it is possible to initiate professional and personal development in general and information readiness for professional activity in particular.

However, at present, the potential of the postgraduate education system is not being fully actualized, especially in the context of systematic implementation of innovative technologies based on the professional experience of educators.

Analysis of recent studies and publications. It should be noted that some aspects of this problem have already been in the focus of research. Thus, there have been researched the psychological and pedagogical aspects of computer literacy contributing to the effective use of information and computer technologies in educational and professional activities (Y. Mashbits, M. Smulson [2], etc.), the personal informational culture of specialists (N. Gendina [3], K. Shovsh [4], etc.), separate individual indicators of information readiness of certain categories of specialists (I. Bazarova [5], O. Papakitsya [6], etc.). There has been performed the research of social and psychological consequences of the influence of information computer technologies on the personality of specialist or user (T. Vakulich [7], O. Voiskunsky [8], etc.).

On the other hand, many works feature the research of various psychological and pedagogical issues related to professional formation and development of teacher’s personality in the digital society (V. Bykov [9], N. Gushchina [10], O. Ovcharuk [11], etc.). There exist well-known approaches to adult learning based on the experience, first of all, Kolb's Experiential Learning Theory (ELT) [12], [13]. In recent years, the resources of human development through the acquisition of life experience and wisdom have been widely covered (M. Ardelt [14], D. A. Kramer [15], etc.).
However, the issue of the development of information readiness of pedagogical staff for the performance of their professional activities in view of experience technologies, despite its relevance, has not become the subject of special research.

**The purpose of the article.** The article aims to present the results of the empirical research into information readiness of pedagogical staff for the performance of their professional activities and its further development by means of experience technologies in conditions of full-time distance learning in postgraduate education.

**2. THE RESULTS AND DISCUSSION**

**2.1. Essence and components of information readiness for professional activity.**

The concept of “information readiness” in scientific literature is relatively new. Although theoretical and practical studies are being conducted today in related fields of science – pedagogy and cultural studies – they use terms which are very close, but not actually identical in meaning: information culture, information literacy, information competence, etc.

Thus, in pedagogy information literacy implies a combination of knowledge, search skills and practices, data selection and data analysis; this combination of components is intended to meet the information requirements, including those based on information and communication technologies (O. Bondar [16], Bykov, V. Yu. [17], etc).

Information competence of the personality is considered as the ability to independently work with various information sources, to find and choose the necessary material, to classify and analyze it ([N. Gendina [18]), as well as specialist's willingness to use information technologies (S. Pecherska [19]).

Information competence is considered (L. Golunova [20], etc.) as a component of information culture, which, in turn, is interpreted as one of the components of general human culture, which helps the individual to use independently the information resources accumulated by the society (L. Pilavova-Slyusareva [21]), it is also regarded as one of the components of the general and professional culture of future specialists (L. Nesterov [22]) and a combination of information world and system of knowledge and skills required to meet information needs with application of new information technologies (N. Gendina [23]).

Based on the approach of O Papakitsia [24], information readiness of pedagogical staff for the performance of their professional activities can be defined as a complex of knowledge, skills, personal qualities and motives that provide the ability to carry out information search activities for the performance of professional tasks. In our view, information readiness is a necessary component of educators’ digital readiness for professional activity.

Accordingly, the following components can be highlighted in the structure of information readiness:

- motivational component (a complex of internal and external motives that encourage the teacher to search and use obtained information in their professional activities);
- cognitive component (a complex of knowledge about the basics of information processes, means and methods of search and selection of professionally important information from various sources; understanding of possible consequences of teachers’ responsibility for search, dissemination and use of information, etc.);
- operational component (a complex of skills to use information and communication technologies as a set of tools to solve professional tasks, in particular: to organize search and selection of professionally important information from various sources, to analyze the degree of reliability, completeness and objectivity of incoming information, to systematize it etc.).
– personal component (a complex of personal qualities which ensure an adequate information search process, determine the teacher's ability to analyze the degree of reliability, completeness and objectivity of the information in conditions of uncertainty: tolerance to generality; analytical style of thinking; flexibility and criticality, high level of search activities).

Accordingly, a low level of information readiness for professional activity is typical of pedagogical staff possessing insufficient knowledge of main sources and means of information search. Such staff have difficulties in the selection, processing, meaningful analysis and systematization of information in conditions of uncertainty, and, as a result, they perform formal processing of information in such conditions and prefer to use the same standard thinking patterns, ignoring possible consequences of using irrelevant information; it happens also due to their lack of responsibility and passivity in situations where the choice of various technologies of the information search is possible.

An average level in the development of information readiness is stated in case of possession of sufficient knowledge of the main sources of information combined with satisfactory search activity and use of various search technologies and means; situational interest in information search; partial awareness of possible negative consequences of information use; the ability to anticipate the consequences of information use together with the willingness to take responsibility for it only in individual cases; ability to understand patterns of information processes in conditions of change and uncertainty.

A high level of information readiness is determined in case of complete and deep knowledge, skills and abilities to work with information and use it for professional and life activities; attitude to the process of information search as to the opportunity to achieve a certain level of professional and personal development, the ability to anticipate the consequences of information use together with the willingness to bear responsibility for it; analyze the degree of accuracy, completeness and objectivity of the information in the conditions of uncertainty; sufficient level of development of search activity in the process of obtaining data by application of various search technologies; tolerant attitude to the situation of uncertainty, that is, acceptance of the general uncertain situation as necessary and useful for the performance of information activities.

2.2. Methods and results of empirical study related to levels of information readiness

The study of levels of information readiness of pedagogical staff for the performance of their professional activities was based on the combination of methods selected with regard to the content of its components: a) motivational: Professional activities motives (O. Bondarchuk, L. Karamushka [25]), which was used to establish a hierarchy of motives that encourage the teachers to search information; b) cognitive: O. Papakitsa's questionnaires Information for the analysis of cognitive qualities of a personality in work with information [26]; c) operational: Skills and practices of working with text information [27]; d) personal: projective test Situation by A. Wenger and V. Rothenberg to identify the features of teacher search activity [28]; questionnaire Style of thinking by A. Harrison and R. Bremson (adapted by A. Alekseev) [29]; S. Badner's questionnaire Tolerance to uncertainty, adapted by G. Soldatova [30].

The empirical study involved 280 teachers from different regions of Ukraine, divided into groups by gender (35.7% male, 64.3% female).

According to the empirical study, insufficient level of development of both information readiness for professional activity in general and its individual components was found for a considerably large number of pedagogical staff: the majority of the respondents had medium (59%) and low (31%) levels of such readiness, only 10% of those surveyed demonstrated it at the high level.
Regarding the motivational component, it has been stated that the information search activities of pedagogical staff are poly-motivated, with the following priority: personal development motives (39.1 points), performance motives (33.5 points), social motives (21.8 points) and procedural motives (20.5 points).

It has been determined that the overwhelming majority of teachers under research (75.0%) have an average level of development of motivation to work with information in their job, some of the respondents (11.7%) have a low level of motivation to search and find information needed for professional and personal development. At the same time, it is found that the specialists under research do not always realize the possible consequences of information use in their life.

In addition, problems have been identified in the development of cognitive and operational components of information readiness. In particular, with regard to the cognitive component, a high level of development was stated only with 8.3%, average – 31.9%, and low – 60.7%, of the respondents. This indicates an insufficient awareness of a large number of educators as to the regularities of data existence and search, understanding of the variability of information sources, including methods of information search on the network through various search resources.

Regarding the operational component of information readiness of pedagogical staff, it was found that the knowledge and skills of work with information are insufficiently developed with the majority of the respondents: only 9.7% of respondents have the high level. At the same time, 51.5% and 38.8% of the respondents showed average and low levels of information skills, in particular, they experienced difficulties in understanding text content and analysis of text structure, in the formulation of requests for missing information and in searching of requested data, as well as difficulties in separation of data insignificant for the performance of professional tasks, etc.

Also, there has been reported an insufficient level of development of a personal component of information readiness. Thus, a harmoniously developed style of thinking was found only with 11.7%, and tolerance for uncertainty – only with one-third of those under research (33.5%). This indicates deficient flexibility of teaching staff in the process of data obtaining and their inability to work with information in conditions of uncertainty.

With regard to search activity, it was found that the overwhelming majority of those surveyed demonstrated an average level of development (71.8%), low and high levels of search activity were found with 14.1% of the teaching staff.

Thus, the results of the empirical study have testified to an insufficient level of information readiness for the professional activity with a considerable number of pedagogical staff; they also proved the necessity to develop information readiness in postgraduate education.

To solve the problems related to the formation and development of information readiness of pedagogical staff, we have chosen experience technologies in adult education, in view of the fact that experience plays an important role in the learning process.

### 2.3. Content and specificity of experience technologies implementation

During the period of reforms, the practical experience becomes one of the most important sources for the development of teachers’ professionalism. Assimilation of innovative experience (such as ways of experience acquirement, skills of experience comprehension, analysis, generalization, application in various conditions, as well as experience sharing with colleagues) can be considered as a new key integrative competence of the teacher and a factor of professionalism transformation.

In the system of postgraduate pedagogical education, this necessitates the use of modern technologies in the mastering of professional experience and teaching of educators on the
An experience technology is a collection of adult education technologies based on acquisition and application of various types of individual experiences. An experience technology is the embodiment of a basic principle of andragogy – learning based on experience. These technologies organically fit into the context of transformational learning, as they motivate educators each time to analyze and reconsider their own/their colleagues’ experience, as well as to alter the traditional outlook and behavioural models in professional activities [31], [32].

In this regard, R. Hansen notes that in this case, intrinsic motivation outweighs extrinsic motivation and the goals of the learning process, to some extent, are thought to be the learner’s goals. Analysis and reflection are an important part of learning, i.e., the learner values what he/she is learning and the analysis and reflection gained from experience extend it to a larger context and vice-versa. Learning by experience is essentially indefinite by nature and often associated with incompleteness; it is a trial and error process [33].

The study found that the most effective results are achieved in case of application of non-linear forms of teacher education, with the possibility to master new strategies and patterns of behavioural activity. Effective methods recommended for the achievement of these tasks are case technology, problem-based learning and modelling, role-playing, team-building exercises [34].

Experience technologies are widely used in the process of transformational teaching, which involves the extensive development of practical pedagogical experience. Thus, tutoring and mentoring provide opportunities for experienced teachers to share their experience. In the process of teaching, teachers can share their methods; discuss a new vision of problems. There exist various methods to be used for assimilation of practical experience: fixation or presentation (video, presentation, infographics); sharing (master class, workshop); formation (practicum, training).

In postgraduate pedagogical education such activities as small-group work, consultations and training on an individual schedule are widely used; these activities help to meet the educational needs of each individual.

Project methods are also popular and widely used. They are especially effective in situations where teachers have to obtain a specific result, which can be later used in practice. It has been stated that one way to achieve high efficiency in the formation of information competence of translators may be the completion of a comprehensive translation task, defined individually for each student, with the prospect of its completion throughout the training period in accordance with certain stages of the formation of information competence [35].

Increasingly important becomes feedback from the audience to the teacher; it gives the opportunity to get information about real and potential outcomes of the teaching process. As a rule, a training session ends with the assessment (evaluation) of results, the reflection of each teacher in regard of their own successes in the development of professionalism, as well as definition of tasks for the next stage of teaching.

The development assistance program for information readiness of pedagogical staff for professional activities is built on a modular basis and embodies a competency approach. The thematic focus of the program is fully integrated into all training modules (seven of them). In total, the program volume is 210 hours, 7 ECTS credits and designed for two face-to-face sessions (set-up and test-taking) lasting 5 days each and an inter-session period (remote stage for independent work for six months).

It should be noted that such duration of distance learning course is not accidental. The maximally prolonged, long-term training allows the pedagogical staff to dive deep into the problem, to acquire new innovative theoretical concepts and practical tools (gradually, systematically and according to individual pace), to integrate them into their own professional
practice, to experiment and to develop an authentic scientific product (programs, methods, etc.). At the same time, constant introspection and self-evaluation of the teacher in the course of learning process ensure the achievement of considerable results in professional and personal self-improvement.

The organization and support of distance learning of pedagogical staff is carried out in a special educational web environment, which is technically provided by E-Front platform.

The educational and methodological support of the educational process is developed and placed in the web environment in different forms – text, graphics, multimedia, audio/video (lectures, training videos/films, etc.), links to information, scientific sources. Thus, students can choose to master the content in the form which is acceptable for their individual requirements to perception, as well as time and pace of learning. In addition, both in the process of learning and in the practice of professional activity, they are able to repeatedly return to certain important theoretical and methodological provisions. Therefore, the acquired knowledge becomes conscious and substantive.

The leading part in distance learning belongs to students’ independent work. However, this does not exclude the use of other types of activities and technologies. Thus, effective acquisition by the students of practical skills in modern educational technologies, methods, practices is enabled by means of special online courses involving interactive teaching methods. Online thematic discussions allow students to discuss current issues of education in one group or in several mini-groups (virtual teams). During this process they can acquire/develop skills of partnership, active listening, having different points of view on one problem, analyze the tasks and make effective decisions.

An integral part of the distance learning process is scientific and methodological support provided by the tutor by way of online/offline counselling, online/offline communication (discussing issues, difficult situations, motivation for lifelong learning and professional development, etc.), online / offline-information. The scientific and methodological support provides for personalization of the educational process, constant introspection and self-reflection, which affects the quality of education and qualitative individual changes of the teacher.

The presence of prompt feedback gives the opportunity not only to trace the teacher's progress in educational trajectory, but also to receive information about the teacher’s emotional state and, accordingly, to improve the educational process, particularly in regard of psychological comfort.

Application of additional educational online resources – social networks, YouTube, etc. – in distance learning, not only contributes to the acquisition of deep knowledge by the students but also enables them to master these information resources and their benefits for use in the educational process, as well as for professional communication, exchange of experience and personal interaction.

During the period of distance learning, students have been doing specific individual home assignments from the training workshop to ensure the use of the acquired knowledge, skills and competencies in professional activities during the sessions. In addition, special training courses with elements of active social and psychological training were conducted during the set-up and check-out sessions aimed at the development of personality component of information readiness.

The analysis of the results of research related to the implementation of the development of information readiness for educators during the full-time distance postgraduate education confirmed the effectiveness of this aspect.

3. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH
Educators' information readiness for professional activity, regarded as a complex of knowledge, practices and skills, combined with personal qualities and motives which provide the ability to perform information search activities in order to solve professional tasks, is an integral part of the digital readiness of educators for pedagogical activity.

The insufficient level of informational readiness of a considerable number of pedagogical staff for professional activity revealed by the results of our empirical research determines the expediency of its development by means of experience technologies. These technologies involve the training of specialists based on practical experience and application in the process of professional development. Experience technologies are especially important in non-linear forms of learning, which motivate learners to make a conscious choice of learning content and forms of their professional development.

Prospectively, it is relevant to develop and test the programs of development of information readiness in postgraduate education for different categories of pedagogical staff. The empirical study of the specificity of information readiness of educators engaged in institutions of postgraduate education for professional activity is equally important, as well as the study of the psychological competence in the context of the development of such readiness.

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Анотація. У статті представлений інноваційний підхід до розвитку інформаційної готовності педагогічних працівників до професійної діяльності в умовах очно-дистанційної форми післядипломної освіти. Охарактеризовано сутність і складові (мотиваційну, когнітивну, операційну та особистісну) інформаційної готовності педагогічних працівників до професійної діяльності. Наведено індикатори розподілу освітян за рівнями інформаційної готовності (низький, середній, високий) до професійної діяльності. Висвітлено методику та результати емпіричного дослідження рівнів інформаційної готовності педагогічних працівників до професійної діяльності, які свідчать про недостатній рівень розвитку таких готовності значної кількості освітян. Показано, що високий рівень інформаційної готовності властивий лише деякій частині досліджуваних освітян, які мають глибокі і повні знання, уміння й навички роботи з інформацією, характеризуються розвинутими особистісними якостями, що забезпечує активний характер і відповідальне ставлення до її використання в практиці професійної діяльності в умовах невизначеності. Щодо інших педагогічних працівників, то їм притаманне часткове усвідомлення (або взагалі його відсутність) можливих негативних наслідків від використання інформації, недостатня готовність нести за це відповідальність; незадатність розуміти закономірності інформаційних процесів в умовах невизначеності тощо. Розкрито сутність експерієнс-технології розвитку інформаційної готовності педагогічних працівників до професійної діяльності в умовах очно-дистанційної форми післядипломної освіти. Висвітлено особливості реалізації експерієнс-технології як інструменту навчання фахівців на основі практичного досвіду, їх застосування в процесі професійного розвитку. Підкреслено ефективність експерієнс-технологій у нелінійних формах навчання, які передбачають свідомий вибір особами, які навчаються, змісту і форм власного професійного розвитку.

Ключові слова: інформаційна готовність до професійної діяльності; педагогічні працівники; післядипломні освіта; заочне дистанційне навчання; експерієнс-технологія.
ЭКСПРИЕНС-ТЕХНОЛОГИИ В РАЗВИТИИ ИНФОРМАЦИОННОЙ ГОТОВНОСТИ ПЕДАГОГИЧЕСКИХ РАБОТНИКОВ К ПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ

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Аннотация. В статье представлен инновационный подход к развитию информационной готовности педагогических кадров к выполнению своей профессиональной деятельности в условиях очно-дистанционной формы послепродипломного образования.
Охарактеризованы сущность и составляющие (мотивационная, когнитивная, операционная и личностная) информационной готовности педагогов к профессиональной деятельности. Приведены индикаторы распределения педагогов по уровням информационной готовности (низкий, средний, высокий) к профессиональной деятельности.
В статье также представлены методика и результаты эмпирического исследования уровней информационной готовности педагогов к профессиональной деятельности, свидетельствующие о недостаточном уровне развития такой готовности у значительного числа педагогов. Показано, что высокий уровень информационной готовности присущ всего лишь десятой части педагогов, которые владеют глубокими и безупречными знаниями, умениями и навыками работы с информацией. Они характеризуются развитыми личностными качествами, обеспечивающими активный характер и ответственное отношение к использованию информации в практике профессиональной деятельности в условиях неопределенности. Относительно остальных педагогических работников, то есть говорят о частичной осведомленности (или ее отсутствии) о возможных негативных последствиях использования информации, недостаточной готовности нести ответственность, а также неспособности понять закономерности информационных процессов в условиях неопределенности и т.д.
Раскрыта сущность эксприенс-технологий развития информационной готовности педагогов к профессиональной деятельности в условиях очно-дистанционной формы послепродипломного образования. Освещены особенности реализации эксприенс-технологий как инструмента обучения специалистов на основе практического опыта их применения в процессе профессионального развития. Сделан акцент на эффективности эксприенс-технологий в нелинейных формах обучения, в которых предполагается сознательный выбор учащимися содержания и форм собственного профессионального развития.

Ключевые слова: информационная готовность к профессиональной деятельности; педагогические работники; послепродипломное образование; заочное дистанционное обучение; эксприенс-технологии.

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