

FEATURES OF THE CONCEPT OF INFORMATION COMPETENCE IN THE PREPARATION OF FUTURE PRIMARY SCHOOL TEACHERS IN THE EDUCATIONAL PROCESS

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Abstract. *In the last decade, in the formation of educational standards and teaching methods, great emphasis has been placed on the concept of “competence” of students and graduates. This term is interpreted differently by researchers and has multiple definitions depending on the context. In part, it is this ambiguity that leads to non-perception, rejection on the part of participants in the educational process, and insufficient attention to formation within the educational process.*

Thus, having studied and analyzed theoretical approaches to considering the essence and structure of information competence, we can propose the following definition of information competence. Information competencies are the ability to perform operations with information (search, analysis, selection, transformation, storage, protection and transmission) within the framework of professional activities, including using modern information technologies.

Keywords: *competence, primary classes, formation, information, analysis and synthesis of information, national curriculum.*

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In modern society, information competes in value with material resources, its volume is rapidly increasing, and processing requires special knowledge and skills - competencies. The national curriculum and state educational standards determine the list of competencies that a graduate of a higher educational institution must have. Starting from NUPi GOS, for each specialty the competencies necessary for graduates are prescribed, some of which are related to information processing.

In the last decade, in the formation of educational standards and teaching methods, great emphasis has been placed on the concept of “competence” of students and graduates. This term is interpreted differently by researchers and has multiple definitions depending on the context.

In part, it is this ambiguity that leads to non-perception, rejection on the part of stakeholders of the educational process, and insufficient attention to formation within the educational process. The term information competence also has multiple meanings and is interpreted differently by different researchers. Despite the absence of a single term “information competencies,” the demand for this kind of competencies is growing along with the growth in the amount of information.

The first mention of the term "competence" dates back to 1605, according to the Merriam-Webster dictionary. Bolee chastoe upotreblenie eto ponyatie priobretaet v bytu i literature v

nachale XX veka. Tak, "Polnyy slovar inostrannykh slov, voshedshikh v upotreblenie v rusском zhytye" in 1907, defines competence as "dostatochnaya osvedomlennost, neobhodimaya dlya togo, chtoby reshat voprosy v izvestnoy oblasti i proiznosit osnovatelnye suzheniya povodu opredelennogo kura javleniy" [7]. However, the use of ethical terms in the educational environment gained popularity in the 1960s, in the work "Motivation reconsidered: the concept of competence" by R. White v pervye pridaet punyatiyu "kompetentnost" lichnostnyu characteristic. Nemnogimi godami pozdnee, v 1965 g., N. Chomsky introduced the concept of "competence" in his work "Aspect Theory of Syntax". This serves as a starting point for the next step in the American engineering and social school's competence-oriented approach and education.

It is worth noting that the competent approach is not fundamentally new for the educational community. Certain elements of this approach were used in managing the quality of education. Various methods of organizing the educational process, issues of improving the learning process, didactics, descriptions in the work of M. Dzhumaev. Together they develop and classify teaching methods and provide a scientific basis for the development of problem-based learning. The works of B. Khojaev and other researchers also reflect aspects of the creation of a conceptual methodology of pedagogy. [6]

The next round in the development of this problem was the work of John Raven "Competence in Modern Society", released in 1984. Competence is interpreted by Dj. Equally as success in life in a socially significant area [9]. Similarly, in his work Dj. Raven not only defines competence, but also reflects on the nature of competence, divides competence into types, and even introduces an ixth classification. The classification identifies 39 types of competence, which the author classifies as "motivated abilities." Among the selected Dj. Equal types: the ability to self-educate, self-control, critical thinking, willingness to solve similar problems, self-confidence, perseverance, ability to work in cooperation, personal responsibility and others [9]. This work has become fundamental in research on the problem of defining concepts and types of competence, including for the Russian scientific community.

The difference is the fact that information competencies are mandatory for graduates. This is also evidenced by the fact that more than 90% of educational standards for technical specialties of a modern bachelor's degree contain information competencies. The learning process is non-invasive and informative. Search, selection, transformation and transmission of information are an integral part of the educational process and, in essence, constitute information competence. Engineers and technical specialists in modern conditions of a rapidly changing environment and developing technologies also cannot effectively conduct professional activities without qualified work with information.

The transition to NUP presented a difficult task for Russian higher educational tasks, ensuring the acquisition of general cultural, general professional and professional competencies. The first part of this task is the use of modern educational technologies to formulate and require student comments. The second part is the creation of the funds, which enable the implementation of objective and complex competences.

The wide spread of drawing concepts in the educational environment, neither the current moment nor the single concept of "competence" and "competence", nor the division of categories and types [1,2,3].

The term "information competence" is actively used by many researchers in their works. Despite this, there is no generally accepted interpretation of this terminal. In the information space

of Russian researchers and higher education workers, there is no single concept of the term “information competencies.”

Researchers L.K. Raitskaya, A.L. Semenov, P.V. Sysoev [6-9] understand information competence as knowledge, abilities, skills and methods of activity in the field of information technology aimed at solving professional problems. That is, the emphasis is on the use of information technology. The researchers see a similarity in that information competence is inextricably linked with the knowledge and skills of working with information based on information technology and solving everyday educational problems using computer technology. So, G.K. Selevko, defines the property of information competence as perfect mastery of information technologies, work with all types of information” [7]. G.V. Akhmetzhanova expands the interpretation of information competence (which he also calls the competence of an IT specialist) and defines it as the ability to have “knowledge, abilities, skills...” when solving a certain range of social and professional problems using ICT, and also to be able to improve the level of one’s knowledge and experience in the professional field[1]. A.V. Yuryev sees information competence as the basis of professional competence, since it is it, on the one hand, that ensures the implementation of the student’s professional knowledge, skills and abilities, on the other hand, it is itself a condition for its functioning [3].

Information competencies are understood as knowledge, abilities, skills and methods of activity aimed at independent and successful participation in professional activities using computer technologies.

It should be noted the difference between the information competence of specialists in the field of engineering and technology and the competence of specialists in the field of IT.

Analysis of the NUP showed that in the block of general professional competencies of IT specialists there are also competencies that we define as information. The block of professional competencies of IT specialists contains other competencies required to solve highly professional problems. Information competencies are general professional competencies and can be equally used when solving professional problems in any field.

Each educational standard contains competencies that a graduate must possess. They are divided into three types: general cultural competencies, general professional and professional competencies.

Competencies from the general professional block were analyzed. For a number of specialties, general cultural competencies were considered due to the absence of information competencies in the list of general professional ones. It should be noted that 97.8% of the educational standards under consideration contain competencies that fit the definition of information competencies. And only 2.2% of the NLPs under consideration do not contain competencies, the wording of which could allow them to be unambiguously classified as information competencies. Frequently encountered formulations of information competencies in NUP technical specialties, characterized by the ability to:

- “to solve standard problems...” of professional activity based on information and bibliographic culture with the use of information and communication technologies and taking into account the basic requirements of information security occurs several times;

- “search, store, process and analyze information...” from various sources and databases, present it in the required format using information, computer and network technologies is mentioned several times;

- “to understand the essence and significance of information in the development of modern society, to be aware of the danger and threat” that arise or may arise in this process, in compliance with information security requirements, occurs several times;

“use basic methods...”, defining all possible methods, implying the receipt, storage, processing of information and skills in working with a computer as a means of information management, is repeated and “use skills in working” with a computer, proficiency in information technology methods, and compliance with basic information security requirements is included in NUP

- “acquire new scientific and professional knowledge” using modern educational and information technologies and use modern information technologies, applied software when solving problems.

Thus, having studied and analyzed theoretical approaches to considering the essence and structure of information competence, we can propose the following definition of information competence. Information competencies are the ability to perform operations with information (search, analysis, selection, transformation, storage, protection and transmission) within the framework of professional activities, including using modern information technologies.

The main conclusion is the lack of a unified perception of the concepts of competence, competency, and information competencies.

From the analysis of scientific and journalistic works of scientists on the topics under study, it becomes clear that the creation of a unified descriptive characteristic of the concept of “competence” and the concept of “competence” remains an unsolved task of modern science. This occurs both because of the symbolic nature of these concepts, the lack of connection with really existing objects, and due to the application of these concepts in a wide range of areas of activity. However, this work uses an approach in which the concepts of “competence” and “competence” are synonymous. Exploring the topic of competencies and the competency-based approach, it becomes obvious that competency includes two components: “knowledge” and “activity”. In addition, it is not correct to identify competencies only with knowledge, abilities and skills [5]. Of course, competencies are inextricably linked with these concepts, but, at the same time, they express a broader concept. The main characteristic difference between competencies and knowledge is the ability and possibility of applying information in activities, and not just possession of this information. The superiority of competencies over skills lies in the ability to apply them to solve various kinds of practical problems. And the ability to act unambiguously in both standard and atypical situations distinguishes competencies from skills. Theoretical analysis allows us to state the presence of pluralism of opinions, multiple interpretations of such concepts as “competence”, “competence”, which can be explained by the relative novelty of these concepts as a subject of research in pedagogical science and the multifaceted nature of their application to educational practice. As assumptions, we define the concepts of competence and competency. In our understanding, competence is knowledge, skills, abilities. Competence is an integral characteristic of a specialist’s set of competencies.

M. Dzhumaev cites the following as ideas that contribute to the effective formation of competencies in the training of future primary school teachers in the educational process [6]:

- integration of various results of education and self-education when solving problems;
- Self-activity, self-development, self-control;

• orientation towards long-term personal goals. The authors M. Dzhumaev [6] believe that the formation of information competence occurs thanks to such areas of activity as:

- Using the Moodle platform in the learning process;
- Research work as a tool for developing information competence of students;
- Creation of educational, methodological and information support for the educational process as the basis for the formation of information competence of students.
- Orientation of the educational and scientific process towards the practical activities of students.

Thus, the professional community of teachers is faced with the task of discussing and comparing traditional and innovative ways of assessing the level of development of competencies of students and graduates. It is necessary to create an innovative system for assessing student competencies. Obviously, the development of information formation is mandatory for the inclusion of a university in the international educational space.

The main conclusion from the literature review of the issue is the lack of a unified perception of the concepts of competence, competency, information competencies, as well as the lack of an objective system for assessing the level of development of students' competencies in the learning process. The professional community of teachers is faced with the task of discussing and comparing traditional and innovative ways of assessing the level of development of competencies of students and graduates.

This conclusion determines the relevance of further research into the problem situation and the usefulness of developing recommendations for increasing the level of development of information competencies and the system for their assessment. In this regard, the research objectives should be formulated as follows:

1. Selection of research methodology;
2. Research into the level of development of information competencies of bachelor students of Primary Education at TSPU;
3. Study of the state of the system for assessing information competencies of students in Primary education at TSPU
4. Determination of recommendations for assessing the level of formation of information competencies of bachelor students of technical specialties of Primary Education at TSPU and the system for their assessment.

There is a need to shift the focus from assessing theoretical knowledge to assessing practical professional activities. Therefore, we have to abandon the existing methods for assessing learning outcomes that were used in the implementation of the first and second generation state educational standards. It is necessary to create an innovative system for assessing student competencies. Obviously, the development of such a system is mandatory for the inclusion of a university in the international educational space. This conclusion determines the relevance of further research into the problem situation and the usefulness of developing recommendations for increasing the level of development of information competencies, as well as the creation of a system for their assessment.

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