THE CONTENT OF THE PREPARATION OF THE FUTURE TEACHER, AIMED AT DEVELOPING ITS INFORMATION COMPETENCE

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ABSTRACT

The article describes the methodological training of the future teacher, aimed at developing his informational competence. It also analyzes the work of scientists on the development of information competence. It is concluded that in the structure of informational competence, teachers distinguish between the invariant (common to all possible qualifications) and variative (professionally oriented) components (the latter is associated by a number of researchers with skills in using new information technologies in education).

Keywords: Information competence, education informatization, computer technology, professional activity.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

A tool for the targeted development of teacher information competence is usually a separate training course or system of training courses. So in the study of O.G. Smolyaninova development of information and communication competence of future teachers is carried out in the framework of a special course "Multimedia in Education" [7].

E.V. Dostovalova considers the informational competence of a social educator and proposes to form it by including in the curriculum the specialty "Social Pedagogy" of the course "Fundamentals of Publishing Activities", built on block-modular technology. The course is based on the use of graphics packages AdobePhotoShop and CorelDraw, desktop publishing AdobePageMaker [1].

I.V. Schukina, in her research, proves that the system of the following elective courses in the field of educational informatization allows the formation of the information competence of students of philological faculties necessary for their professional activities in the information society: Introduction to Pedagogical Informatics, Information Modeling, and Modern Methodology informatics and social informatics ","" Information culture of a person ","" Computer linguistics and machine translation ","" Fundamentals of work in Internet. Internet and philological education ","" Fundamentals of legal informatics and information security ".

ABOUT. Zaitseva, considering the development of information competence of the future teacher, notes that this process should be natural and should be carried out throughout the entire period of study at the university. The development of information competence is carried out through the study of academic disciplines "Informatics" and "Information Technologies", as well as through the introduction of new information technologies in the educational process when studying the disciplines of general and special training. The author notes that with this approach, students not only study subjects using developing modern tools at a higher didactic level, but also understand the applied value of information technology more deeply. Knowledge and skills in the use of computer technology in any applied field will allow students

to use computer technology in the study of other academic subjects and create their own integrated courses in their professional activities using new information technologies [2].

I. Jlotnikova believes that the formation of the information competence of a future subject teacher is possible within the framework of a system of training courses, including: the course "Mathematics and Informatics", the course "Use of information and communication technologies in the educational process" and a number of courses depending on the specialty of the future teacher.

In the work of L.B. Senkevich addresses the issues of formation of informational competence of students - future mathematics teachers. As an initial principle that underlies the author's proposed system for the formation of informational competence of a future mathematics teacher, the proposition is put forward that effective training of students in the formation of informational competence can be carried out within the framework of a technology that includes three interconnected blocks: substantive and methodical; organizational and methodological and instrumental. The methodological system for the formation of informational competence of a future mathematics teacher includes a specialized course "ICT in the professional activities of a mathematics teacher", teaching practice and the implementation of qualification works. The design of the training course is based on the modular principle, while the following modules were highlighted: the Windows operating system and office software, application software for the subject area of mathematics, graphic tools, ICT tools in the educational process, Internet tools.

In the work of I.Ya. Zlotnikova of the information competence of the future subject teacher is invited to use traditional, based on the classroom system in full-time education and distance learning organization forms. The teaching methods are predominantly innovative, active methods: the problematic method, "which consists in organizing the acquisition of knowledge by students in the process of solving educational problems", the problematic situation is created by the teacher, who acts "as the organizer of cooperation, a consultant, managing the search work of students. ... It is the teacher who designs the emergence of contradictions, educational conflicts, the clash of positions of the participants in the training "[58; P.43]; project method, which suggests a way to achieve the didactic goal through a detailed development of the problem, which should end with a very real, tangible practical result, framed in one way or another. In project training, the problem is outlined implicitly; students must independently and jointly resolve it by applying knowledge from different fields. All work on the problem thus acquires the contours of project activities.

E.V. Dostovalov [1] and A. M. Orobinsky [5] also propose using the project method in the formation of the informational competence of a future teacher.

The natural environment for the formation of information competence O.G. Smolyaninova considers multimedia technologies, and the most appropriate method for their formation is active learning methods, such as the method of controlled opening, case method, project method and portfolio method. "A distinctive feature of the CaseStudy method is the creation of a problem situation based on real-life facts. Case is not just a truthful description of events, but a single information and communication complex that allows you to understand the situation, put forward a hypothesis of a solution, be able to find the missing information, conduct a discussion, and ultimately make the right decision. Any case situation is ambiguous (does not have the only right solution). Case-based training is based on a lack or redundancy of information "[7].

The portfolio method allows you to take into account the results achieved by the student in a variety of activities: educational, creative, social, communicative. "Student's portfolio" is a set of documents developed by a teacher and independent work of a student. This is a tool for self-assessment of a student's own cognitive, creative work, reflection of his own activity.

Both traditional and innovative: multimedia (O.G. Smolyaninova), telecommunications and Internet resources (A.M. Orobinsky, I.Ya.Zlotnikova, O.N. Krylova , T.G. Galaktionova), pedagogical software (I.Ya. Zlotnikova), general-purpose applications, such as text and image editors, spreadsheets, databases, etc. (L.B.Senkevich, E.V. Dostovalova).

When analyzing the possible ways of developing informational competence, it is necessary to determine what the informational competence of this or that specialist includes. Let us consider which components in the structure of information competence of teachers are distinguished by various researchers.

Thesis research by O.B. Zaitseva is devoted to the formation of informational competence of future teachers of technology and entrepreneurship. The author considers the information competence of a technology teacher as "a complex individual-psychological education, functioning on the basis of the integration of theoretical knowledge, practical skills in the field of new information technologies and a certain set of personal qualities that condition a teacher's readiness for professional work in the conditions of informatization of society" [2].

The author identifies the following as concepts that formulate and clarify the interpretation of information competence of a teacher:

• Algorithmic literacy - a set of specific ideas, abilities and skills associated with mastering the most common components of algorithmization.

• Computer literacy - mastering the initial skills of communication with a PC and office equipment, familiarity with basic software.

• Information literacy - the ability to create, process, store and consume, search for necessary information, including through computer communication networks.

• User and technological literacy - strong skills in using information systems and application software packages in their subject area (word processors, spreadsheets, databases, semantic networks, expert systems, computer-aided design systems, the Internet, etc.), skill competently prepare the publication and presentation.

• Information behavior - a mode of action, a combination of efforts undertaken to obtain, process and assimilate existing information, create new knowledge and transfer it to the professional community.

• Computer communication - the appropriate interaction of subjects and objects of communication, compensating for the limited possibilities of a person, aimed at regulating all spheres of public life in the name of preserving the unity and integrity of man, society and all of humanity.

N.V. Kisel understands the informational competence of a teacher as a special type of organization of subject-specific knowledge, which makes it possible to take effective decisions in professional pedagogical activity and indicates the level of mastery and use of information technologies in the educational process [67; P.139]. The structure of the teacher's information competence consists of the abilities and willingness to work with various databases available at the school, to receive and transform them into educational goals; ability and willingness to systematize the data and organize their own learning methods; get involved in activities, collaborate while working with a class team; use new technologies for the assimilation of information and communication.

According to M.M. The Pshukova composition of the information competence of a teacher is knowledge, skills in the use of means and methods:
• collection (use of hardware for inputting information (scanners, digital cameras and video cameras, MIDI devices, a microphone, etc.) and information retrieval (using information retrieval systems and Internet resources to search for necessary information);
• storage of information (using database management systems, visual tools to create electronic documents that integrate text, graphic, sound and video information, Internet information resources for selecting educational information);
• information processing (using ready-made software to automate school management; evaluating and using multimedia programs in the lesson; developing scripts for fragments of multimedia educational programs; using information processing resources on the Internet in training sessions);
• information transfer (using for training purposes the basic capabilities of computer networks, "Virtual Class" systems, communicative resources of the Internet (e-mail, conferences, chats), technologies of distributed information processing systems).

A number of researchers note that the structure of information competence includes two components: basic knowledge and skills that are common to specialists in any profession, and professionally oriented, specific to a particular profession.

So E.V. Kasyan points out that the structure of professional informational competence includes both basic knowledge and skills common to all computer users, as well as professionally oriented ones that provide professional mobility and high competitiveness of a person in professional activities.

M.R. Ryanov also considers the informational competence of a teacher in two aspects: general cultural - in the context of the teacher's everyday life in society and professional - in the context of the specifics of teaching. Moreover, the author notes that the first aspect is a necessary, but not sufficient condition for the formation of the second (it is also necessary to have a solid pedagogical foundation).

T.A. holds the same point of view. Gudkova: the teacher's informational competence "does not come down to knowledge and computer skills, but also implies a well-known teacher's competence in the field of didactics and educational theory, thanks to which the teacher will be able to realize the developing and educating learning functions."

A.M. Orobinsky considers the informational and pedagogical competence of a university teacher and defines it as a set of professional, communicative, personal qualities of a teacher, allowing him to carry out his professional pedagogical activity and achieve high results in the educational process in the context of a rapid change in the information environment [5]. As part of the information and pedagogical competence, the author identifies the basic component (active knowledge of the methods of receiving and transmitting diverse information) and professionally oriented (knowledge of modern information technologies in education).

A.A. Uzdenova, exploring the information and computer competence of a specialist, identifies two main parts in its structure, including:
1) basic computer knowledge and skills - a single set of knowledge and skills for all categories of users that form a kind of "computer minimum" necessary for the successful development and practical use of any application software;

2) professionally oriented computer knowledge and skills - a complex of knowledge and skills specific to each professional category of users that corresponds to the level of computerization of their professional environment.

Information and computer competence of the teacher A.A. Uzdenova defines as "integration education, based on a combination of special knowledge and skills in the field of new information technologies and their use in professional pedagogical activity, which allows to successfully carry out this activity in the context of computerization and computerization of education and to promote the development of children's information and computer culture". In the structure of information and computer competence of a future elementary school teacher, the author identifies two main modules: knowledge of the basics of NIT (basic computer knowledge and skills) and skills of using NIT in education, which include:

• knowledge of the possibilities of using a computer for training and development;
• knowledge of computer use methods in the organization of training for primary school students in various disciplines;
• the ability to use a computer to organize control and self-control of students learning the material;
• the ability to optimally combine computer and traditional learning technologies;
• ability to use new information technologies to organize students' creative activities.

At the same time, the author notes that the revealed structure cannot be complete and can meet today's requirements for competent specialists without including such a component as a teacher's readiness for pedagogical activity in the context of informatization of education.

O.G. Smolyaninova, considering in her work the component composition of the informational and communicative competence of a teacher, identifies 3 blocks (layers) as a part of the informational competence of a teacher: general education, psychological, pedagogical and worldview. The author connects the general educational aspect with the willingness of the teacher to use information and communication technologies in various activities, and the psychological and pedagogical one with the willingness to use these technologies in the educational process.

It should be noted that the information competence of O.G. Smolyaninova considers knowledge of the basic types of modern multimodal information systems and the possession of skills to work with these systems, and communicative competence includes the ability to communicate in a broad sense, in particular by electronic means. Therefore, such teacher skills as transmitting and receiving information via telecommunication channels, organizing individual and group Internet communication of students (chats, teleconferences, e-mail, etc.), finding information using the Internet, organizing work on network projects, and ethical standards of conduct in the telecommunications network, the use of communication technologies for the implementation of professional educational goals (exchange of information with colleagues, experts, consultants), access assessment The author attributes the importance and quality of information resources to communicative competence.

According to T.A. Zubkova formation of information competence of a teacher is carried out in stages. At the first stage of teacher training at the university, the foundations of basic information competence are laid. At this stage, in the framework of general professional disciplines and subject training disciplines, knowledge, skills acquired in the process of training and self-training in computer science and information technology are acquired. At the second stage, the development of information competence takes place, where the ability to carry out pedagogical activities using information technology is formed. In this regard, it is proposed to introduce such elective courses into the curriculum of a pedagogical university that orient students towards the use of information technologies in their subject area. Each course should

have a practical focus and be subject-oriented and interdisciplinary in nature [3].

According to N.I. Gendina's important trend in recent years is the allocation in the structure of informational training of a modern person as special knowledge and literacy skills in the field of information and communication technologies (ICT). "At the same time, literacy in the field of ICT is most often viewed in isolation, outside the general context of a person's culture and its general informational preparation, as a kind of panacea, a universal tool for solving all the problems of modern human life. A hypertrophied belief in the capabilities of computers and ICTs suggests that there is a bias towards the technocratic development of the modern information society. " [33].

Based on the analysis of the course program N.I. Gendina "Fundamentals of Information Culture" for teachers of secondary schools and the requirements for the composition of knowledge and skills of teachers in this course, we can distinguish the following component composition of teacher training:
1. Knowledge of information resources in the field of education and pedagogy.
2. The ability to express their information needs, to formulate information requests.
3. The ability to conduct an information search in various systems of pedagogical information and documentation (all-Russian centers of scientific and technical information, information systems for teachers, libraries providing information products and services to teachers, etc.).
4. Knowledge of the capabilities of the library and the ability to use them.
5. Skills in the field of analytical and synthetic processing of information sources in the professional activities of teachers.
6. Skills in the field of preparation and presentation of the results of teaching and research activities of teachers (technology for the preparation of educational and scientific texts: curriculum, guidelines for the study of academic discipline, scientific article, review, review, abstract, report, speech, etc. P.).
7. The ability to use modern ICT in the teacher's professional activities (to prepare educational information for creating electronic training documents, use training information systems, work in a local and global computer network, carry out a training dialogue in a distance learning system, etc.).
Note that most authors consider the structure of teacher information competence only in connection with new information technologies. This approach seems unlawful to us, since, in our opinion, information competence is associated not only with the ability to use new information technologies to work with information, but also with the ability to carry out information activities using traditional (paper) technologies.
We are impressed by the approach of O.A. Kizik, which presents an analysis of the spectral composition of the information competence of students of a professional lyceum, which, from our point of view, is a condition for a reasonable determination of the ways of formation of information competence. The author introduces the concept of selection criteria for the components of information competence and identifies the following selection criteria for the components of information competence of students of a professional lyceum:
• the demand criterion is the selection of only those components that are necessary for students to master certain academic disciplines.
• criterion of membership - membership of the component of information competence in one of two groups: providing a subject-subject or subject-resource activity.
• mirroring criterion - finding for each component of information competence that provides one or another type of activity using traditional technologies, a "mirror analogue" that provides essentially similar type of activity using new information technologies [4].

Guided by the selected criteria and the analysis of the didactic capabilities of teaching aids based on traditional and new information technologies, the author determines the composition of the information competence of students of a professional lyceum. The full range of components is differentiated according to the basis of the technologies used - traditional or new information and type of activity - subject - subject or subject - resource and covers the types of information activities of varying degrees of complexity.

The types of information activities highlighted in accordance with the criteria are presented by the author in the form of the following table:

Table 1.

The structure of information competence of the future teacher

Subject Resource Activity	
Types of information activities using traditional (paper) technology	Types of information activities using funds new information (electronic) technologies
Subject subjective activity	
Types of information activities using traditional (paper) technology	Types of information activities using funds new information (electronic) technologies

Thus, based on an analysis of a number of studies, it can be concluded that in the structure of informational competence, teachers distinguish between invariant (common for all possible qualifications) and variative (professionally oriented) components (the latter is associated by a number of researchers with the skills and abilities of using new information technologies in education) Therefore, the tool for the targeted development of information competence of a teacher is usually the basic course "Informatics" and specialized (professionally-oriented) courses, the content of which is determined by the specialty of the future teacher.

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