Content Forecasting and Assessment of Methods to Develop Teachers' Media Competencies

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Abstract

The purpose of the article, to predict the actual content of teachers' professional competencies that ensure the productive use of media and digital resources in solving pedagogical tasks, to propose ways to form such competencies by media means. With regard to the findings of the study, the following conclusions were made. A modern educator needs competencies related to the search and selection of media products and digital technologies for solving pedagogical tasks (orientation-constructive), designing an educational process that allows them to realize their pedagogical potential (design), organizing individual and group educational and cognitive activities of students in a virtual environment (organizational), pedagogical communication in a virtual environment (communicative), the use of media- and digital resources in the educational process, taking into account individual requests and special needs of students (inclusive), ensuring the safety of the media and digital resources used by the teacher and students (health-saving), continuous formation and self-development of digital and media literacy and culture (developing), creation of new pedagogical practices by means of integration of traditional, media- and digital means (innovative), ensuring the humanistic orientation of the process of using digital and media tools to solve pedagogical tasks (humanistic). To develop such competencies, it is necessary to involve media: cinema, educational video content, electronic educational resources, etc.

Keywords: teachers, educators, media competencies, teachers' media competencies, forecasting the content of media competencies, formation of media competencies, cinematography, media.

1. Introduction

Information and communication, digital and media resources, technologies are increasingly penetrating both into the daily life of people and into the educational process implemented at different levels of education (preschool, school, vocational school, higher, additional education). Electronic presentations, textbooks, tests, learning platforms, online course designers, computer simulations, simulators, 3d models, virtual laboratories, teaching gadgets, distance learning technologies, pedagogical technologies based on artificial intelligence, blended learning and other assets are becoming an integral reality in education.

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Turning to digital technologies and media resources changes the content of a teacher's professional activity. New pedagogical functions and tasks are emerging: search and selection of digital and media resources, tools, electronic educational resources; design (pedagogical design) of their application (for example, designing online courses); organization of independent activity of students with such resources; automation of monitoring learning outcomes, establishing feedback; ensuring the safety of the use of electronic resources, etc. Some authors point to a new type of teacher's activity – media educational (Izotova et al., 2022). Digital tools are beginning to identify the logic of learning. Such areas of pedagogical science and practice as film pedagogy are developing (Dorofeeva, 2021; Kolokolnikova, 2021; Sitnikova, 2020; Zheltova, 2021), media education (Fedorov, 2013; Plotnikova, 2019), digital didactics as a "scientific discipline about the organization of the learning process in a digital society", complementing and transforming traditional concepts and principles of didactics in relation to the conditions of the digital environment (Oreshkina, 2021: 70) and as an educational practice.

At the same time, it should be understood that media and digital technologies are just the means, and their didactic and educational effect largely depends on the teacher, on his personal and professional qualities, charisma, willingness to use these resources and technologies for pedagogical purposes. On the one hand, digital and media resources and tools open up a huge field of possibilities in terms of personalization, individualization, differentiation of learning, adaptive education that adapts to the pace and abilities of the student, asynchronous, remote pedagogical communication, interactive interaction of students, instant feedback, automation of learning management processes, visual presentation of educational material, the use of various channels of perception of the educational information, the development of students' critical thinking, self-organizational skills, etc. On the other hand, inept, unprofessional, ill-considered use of media and digital resources by a teacher, their poor selection increases the risks of their negative impact on the development of the personality of students, their physical, mental and mental health; in this case, media and digital technologies only aggravate the teacher's unprofessionalism, enhance the undesirable effects of ineffective pedagogical practices and reduce the quality of education.

In this regard, it is important to understand which competencies a teacher needs today for the successful use of media and digital resources and technologies, which will be required in the future, which competencies are common (optional) for different levels of education, and which are specific for a certain level, which competencies are better developed by teachers, and which are insufficient, how teachers and students themselves assess the relevance of certain competencies.

The purpose of this article is to generalize the available experimental data, scientific research and expert assessments to predict the actual content of professional competencies of teachers, ensuring the productive use of media and digital resources and technologies in solving pedagogical problems, to propose ways of forming such competencies by media means.

2. Materials and methods

The following methods were used to achieve the goal:
– analysis and generalization of national and foreign studies, regulatory documents describing the competencies necessary for teachers to use information and communication, digital and media resources, tools, technologies and methods of their formation in the educational process;
– systematization of information and communication, digital and media resources used in education, tasks of using these resources by teachers and forecasting on this basis the content of teachers' media competencies, classification of such competencies;
– expert assessments of the content of teachers' media competencies.

3. Discussion

In national and foreign studies, regulatory documents, attempts are made to identify the competencies necessary for teachers to use information and communication, digital and media resources and technologies in the educational process.

Digital literacy is singled out as an actual quality of teachers and students in a digital environment – "the ability to safely and appropriately manage, understand, integrate, exchange, evaluate, create information and access it using digital devices and network technologies to participate in training" (Efremova, 2022: 77).

A number of authors substantiate the need for teachers to develop digital competence, which is understood as "a set of competencies for working in a digital environment and with digital products, including activities in creating and collecting data, processing and analyzing them, as well as automating processes using computer technology" (Davydov et al., 2017: 239-240).

The European Framework of Digital Competencies of Teachers (DigCompEdu) includes 22 competencies necessary to solve 6 key tasks:

– use digital technologies to improve teaching;

– select high-quality digital educational resources;

– develop, plan and implement digital technologies at all stages of the educational process;

– use digital tools to evaluate learning outcomes, establish feedback, analyze digital data in order to further support students;

– to expand the rights and opportunities of students by means of digital technologies;

– to promote the development of digital competencies of students (Redecker, 2017).

In the Professional standard "Teacher" (Professional Standard, 2013), approved by the order of the Ministry of Labor and Social Protection of the Russian Federation No. 544n dated October 18, 2013 (with current amendments), the labor activity is titled "Formation of skills related to information and communication technologies". Among the skills required of a teacher, the following is highlighted: "to apply modern educational technologies, including information, as well as digital educational resources"; "conduct training sessions based on achievements in the field of pedagogical and psychological sciences, age physiology and school hygiene, as well as modern information technologies and teaching methods"; "use modern assessment methods in the context of information and communication technologies (maintaining electronic forms of documentation, including electronic journals and diaries of students)"; "formation of a material and informational educational environment that promotes the development of the abilities of each child and implements the principles of modern pedagogy"; "professional use of elements of the information educational environment, taking into account the possibilities of using new elements of such an environment that are absent in a particular educational organization"; "use of information resources in working with children, including distance learning resources, assistance to children in their development and independent use of these resources"; "formation of students' ability to use information and communication technologies in solving the problem where it is effective"; "formation of students' attitude to communication in the widest possible context, including in hypermedia format" (Professional Standard, 2013).

National authors refer to the components of digital competence as knowledge, skills, experience that ensure the successful solution of the following tasks by teachers:

– identification, evaluation, selection of digital resources and information and communication technologies (ICT) for solving specific didactic tasks;

– development of author's electronic teaching materials that take into account the diverse needs of students;

– the use of digital tools for organizing collaborative learning and self-education;

– improvement and automation of evaluation activities using ICT and digital tools;

– development of students' digital competencies, educating them as citizens of the digital world;

– continuous professional self-development using digital tools and technologies, networking (Puchkovskaya, 2020).

E. Izotova, T. Avdulova, M. Paramonova, O. Sorokina, E. Surudina (Izotova et al., 2022) introduced the concept of "media competence of a modern preschool teacher", which means readiness to search, create and exchange digital content and experience directly in the digital environment. In the structure of such competence, the authors distinguish:

– the central construct (knowledge and skills in the field of designing educational products in the media and digital environment and their application in practice, including in hybrid education);

– personal qualities contributing to the implementation of the central construct: emotional intelligence; personal and professional flexibility, adaptability in problematic and uncertain situations; the ability to solve several professional tasks simultaneously in conditions of persistent interference; knowledge and skills in the field of ensuring the psycho-emotional well-being of children in an educational organization; the ability to prevent emotional burnout and maintain emotional stability.

To study these qualities, the authors have developed a multifactorial questionnaire "Personal and professional qualities of a modern preschool teacher: perceptions and deficits".

The works of national and foreign authors substantiate the importance of teachers' development of certain relevant skills and personal qualities necessary for the successful use of digital and media resources in education, such as critical thinking, the ability to organize team learning in a virtual environment, etc.

R. Ubell (Ubell, 2010) emphasizes the relevance of the formation of teachers organizing online training, competencies related to the organization of teamwork for students in a virtual environment. The author identifies the following skills within this competence: to integrate teamwork into the online learning process; to select and apply the best methods of organizing virtual team interaction, technologies of productive cooperation; to organize the implementation of effective, competitive, working projects by teams; conduct electronic testing and apply other methods of pedagogical assessment, self- and mutual assessment; manage virtual teams; leadership skills, mentoring and conflict management in virtual teams.

Sh. Sen (Sen, 2023) notes the importance of the teacher's skills and qualities that ensure the involvement of students in the process of structuring the training course, its content, and the digital and media resources used.

R. Wright, J. Sandlin, J. Burdick (Wright et al., 2023) emphasizes the need to develop critical media literacy of teachers in the environment of total disinformation, i.e. the ability to analyze the content of media content from the standpoint of compliance with scientific concepts, humanistic values.

S. Schmidt (Schmidt, 2022) points out the importance of the development of critical thinking of teachers for the analysis of information presented in the media and Internet sources.

A. Oreshkina (Oreshkina, 2021) justifies the development of students' thinking as one of the main tasks of introducing innovative technologies, including digital pedagogical technologies.

Many scientists and practical teachers note that when using digital and media technologies, it is important to avoid a situation where such technologies will control the teacher and students, turn from a means into an "idol", fully automate, technologize the educational process, leaving no room in it for the expression of personal values and interests of the teacher and students, the transfer of cultural traditions from one generation to another through live communication, joint activities. In this regard, the importance of the humanization of digital education, the priority of humanistic pedagogical paradigms, norms and values is noted. Thus, J. Pacheco (Pacheco, 2021) notes the need for teachers to adopt a "new norm" of education in the context of digitalization, according to which the educational program is built as a "moving image", a "constant expression of subjectivity", a "complex conversation" that introduces students to diverse, contradictory ideas about the world, its problems and forms of knowledge to solve them; the emphasis is placed on the formation of mentality, identity, the formation of problem thinking.

Another important skill of teachers in the conditions of digitalization is ensuring the social and psychological well being of students and teachers, creating a psychologically comfortable climate, preserving the physical and mental health of participants in the educational process, preventing Internet addiction and deformations. The relevance of such skills is emphasized by a number of authors (see, for example, N. Chudochkina (Chudochkina, 2019).

The content of media competencies should include the teacher's readiness to fulfill a number of norms and requirements for the use of digital and media resources in education. In particular, they are reflected in Federal Law No. 436-FZ "On the protection of children from information harmful to their health and development", in the Concept of Information Security of Children in the Russian Federation, approved by the Decree of the Government of the Russian Federation No. 1105-r dated April 28, 2023, in the National Standards GOST R 53620-2009 "Information and Communication technologies in education. Electronic educational resources. General provisions", GOST R 57724-2017 "Information and communication technologies in education. The textbook is electronic. General provisions", etc.

In addition, it is important for a teacher to be guided not only by traditional teaching principles, but also by the principles of digital didactics. S. Filippova (Filippova, 2022) lists such principles in relation to professional education:

– the principle of student dominance: emphasis on independent search activity of students with electronic educational content;

– the principle of personalization: giving the student the opportunity to choose the speed and level of assimilation of educational material, its content, media and digital resources;

– the principle of pedagogical expediency of the digital and media resources used;

– the principle of social adaptability: the adaptation of the teacher to the peculiarities of the perception of information by specific students, the ability to quickly adapt;

– the principle of learning in cooperation: systematic establishment of feedback by traditional and network methods;

– the principle of practice-orientation: consideration of theoretical material using specific life and professional examples;

– the principle of saturation of the educational environment with electronic educational resources;

– the principle of multi-modality: the use of different channels of perception with the help of multimedia;

– the principle of rapid and objective assessment, including through electronic testing.

Thus, the researchers note that teachers, for the successful use of digital and media resources and technologies, need special competencies related to the identification, evaluation, selection, creation of such resources; their use for automation of pedagogical functions, organization of individual and group independent work of students with electronic educational content, pedagogical interaction in the digital and media environment, ensuring security of their application. The basis for the implementation of such competencies are personal qualities such as critical thinking, emotional intelligence, personal and professional flexibility, adaptability, multitasking, the ability to act adequately in conditions of persistent interference, as well as the acceptance and implementation of humanistic pedagogical values (development of subjectivity of students, personalization of learning, emphasis on the development of thinking, organization of search activities, etc.).

In a number of works, the idea is expressed that the formation of digital and media competencies of teachers should be carried out using digital and media tools and means. Thus, D. Prokhorov (Prokhorov, 2023) notes that the cross-course training and self-education of mathematics teachers in order to prepare them for work in the conditions of digitalization should be carried out using a web-based learning system. V. Toiskin, V. Krasilnikov, K. Korchak (Toiskin et al., 2023) substantiates the need for the formation of information and communication competence of teachers using the tools of digital didactics.

A team of scientists of Samara State Socio-Pedagogical University under the leadership of O. Bryksina, N. Kislova, S. Leonov, O. Pugach, S. Sushkov (Bryksina et al., 2022) has developed an open online course "Blended learning in school humanities education" within the framework of a state assignment in order to prepare school teachers of the humanities cycle for the use of mixed learning technologies. The course is hosted on the open education platform. The result of mastering the course is the creation by the teacher on the Stepik platform of his own online course for schoolchildren or the development of one of the models of mixed learning on the subject taught.

Volgograd State Socio-Pedagogical University has developed and implemented the practice of assessing the quality of students' pedagogical practice based on traditional forms of control and digital footprint (Smykovskaya, Kryuchkova, 2023).

The method of film pedagogy (Sitnikova, 2020), media practice (Danilenko, Lopatina, 2022), cinema-meeting, cinema technology, festival of educational cinema (Kislyakov et al., 2021), forms of creative activity based on the material and means of cinematography (Konkina et al., 2021), work with film cases are being actively introduced into the training of future teachers (Mikhailova, Efremova-Shershukova, 2022), student media club (Chelysheva, 2022).

4. Results
The analysis of scientific research made it possible to assume that the basis, the matrix for predicting the content of teachers' media competencies can be:

– types of digital and media resources, tools, technologies used by teachers in the educational process, and pedagogical tasks solved with the help of these resources, tools, technologies;

– pedagogical functions performed by the teacher.

The level of technological progress achieved by mankind offers the teacher a wide range of information and communication, digital and media resources, tools, technologies that allow automating the educational process and creating new pedagogical practices. The named resources,

tools and technologies, based on the research carried out (Karlov et al., 2020), can be classified into three groups according to the pedagogical tasks of their application:

Group 1. "Tools for automating educational process management" – digital and media tools that allow automating individual actions of a teacher, pedagogical processes and functions, and managing the educational process: electronic (digital) educational platforms (Moodle, Skillbox, Yandex.Textbook, Uchi.ru, Yaklass, "Russian Electronic School", Foxford, Edu.Skyeng, Mobile electronic education, 1C: Education 5. School, Education, Lecta, "New Disk", etc.), means of electronic evaluation of educational results (electronic testing, electronic portfolio, digital footprint tracking, electronic survey using a chatbot, evaluation using virtual reality technologies, proctoring, etc.), systematization and analysis of assessment results (electronic diaries, journals, statements, spreadsheets, graphs, charts, the platform "Diary.ru", etc.), tools for designing individual educational programs, trajectories using artificial intelligence, designers of online courses ("AutoCreate" program, Stepik platforms, Open.edu etc.).

Group 2. "Electronic educational resources" that allow systematically presenting, storing and distributing educational materials (electronic educational content), organizing independent study of educational material: platforms of mass open online courses, libraries of video tutorials ("InternetUrok.ru "), electronic library systems, databases, educational gadgets, etc., as well as electronic educational resources created by teachers themselves or jointly with students (video lectures, instructional videos, electronic presentations, textbooks, workbooks, etc.), including using platforms ("Kahoot!", "LearningApps", "Stepik", etc.).

Group 3. "Interactive visual aids in teaching" – digital and media resources, tools, technologies that allow you to visually present educational material and create multimedia, interactive educational content: interactive educational videos (for example, thematic how-to channels on Youtube, Rutube, etc.), feature films, documentaries, programs for preparing electronic presentations (Power Point, Canva, etc.), electronic whiteboards (Miro, Padlet, etc.), virtual and augmented reality technologies (for example, programs for creating 3d models, interactive maps and their superimposition on each other (for example, geographical map and tourist sites or historical events), etc.

Group 4. "Means of automation of pedagogical and educational communications" – information and communication, digital and media tools that allow to organize educational interactions between teachers and students, both synchronous and asynchronous: messengers, e-mail, tools for organizing group work on documents, presentations and tables, webinar rooms, remote interaction environments (Webinar, Skype, Zoom, Discord, Microsoft Tims, etc.), social networks (for example, thematic Telegram channel), forums and chats, survey tools ("Questionnaire", "Testologist", etc.), platforms for organizing joint project work (joint implementation of educational and scientific projects by several participants located in different geographical locations), etc.

Group 5. "Means of forming practical skills and abilities by means of virtual environment" – digital and media tools that allow students to form and develop skills and abilities that they do not have the opportunity to develop in real life: computer training games, simulators, training applications, etc.

Tools and technologies based on the integration of traditional, digital, media tools and technologies and *representing new pedagogical practices* can be allocated to a separate group: technology of mixed learning (models "Station rotation", "Inverted classroom", etc.), media practice, digital portfolio, joint creation and editing of knowledge maps and communication diagrams, etc.

These tools and technologies are used by the teacher within the framework of performing the following traditional pedagogical functions: gnostic, constructive, design, organizational, communicative, reflexive (Kuzmina, 1970). However, the use of digital and media tools changes the content of these functions.

Based on the selected groups of digital and media tools and pedagogical functions, we predicted the content of the teacher's media competencies:

Orientation and constructive competencies:

– knowledge of modern information and communication, digital, media resources, tools, technologies that can be used for pedagogical purposes;

– the ability to navigate the variety of media and digital tools and tools to assess their pedagogical potential and the risks of using such tools for pedagogical purposes;

– the ability to quickly master new digital and media tools;

– the ability to search for media and digital means and to select the means necessary to solve specific didactic and educational tasks.

Orientation-constructive competencies ensure that the teacher successfully performs gnostic and constructive functions and solves the problems of searching and selecting digital and media tools.

Design competencies:

– the ability to design an educational process that contributes to the full realization of the pedagogical potential of digital and media means and reduces the risks of their negative impact on the quality of education;

– ability to set or design goals, content, stages of the educational process using digital and media tools based on humanistic pedagogical values (unconditional acceptance of all students, priority of their personality development, subjectivity in education);

– pedagogical design skills (lessons using digital and media tools, online courses, electronic educational environment);

– the desire and ability to involve students in the design of the educational process using digital and media tools (skills of joint design of the educational program, goals, content, methods, means of education and upbringing).

Design competencies ensure that the teacher successfully performs the design function in the conditions of digitalization and solves the tasks of planning the process of realizing the pedagogical potential of digital and media resources and tools.

Technologizing competencies:

– the ability to use digital tools in solving individual pedagogical tasks and functions: visual presentation of educational information, systematic presentation of educational material, the control of learning outcomes;

– the ability to automate pedagogical actions and functions using digital technologies;

– the ability to use open electronic educational resources.

Technologizing competencies contribute to the teacher's performance of design and organizational functions and solving the tasks of automating pedagogical actions with the help of digital tools.

Organizational competencies:

– the ability to create an understandable, user-friendly and attractive electronic educational environment for students, saturated with educational materials, digital and media resources corresponding to their age, cognitive interests;

– the ability to organize individual educational and cognitive activities of students with digital and media resources, including open electronic educational resources (electronic libraries, mass open online courses, video lectures, video tutorials, training tests and assignments posted in free open access), to motivate them to independently search and study such resources;

– the ability to organize real and virtual interaction of students in group learning activities, to organize project, educational and research activities, to form and motivate learning teams that educate children and adult communities.

Organizational competencies ensure that the teacher successfully performs the organizational function and solves the tasks of organizing individual and group work of students with digital and media resources.

Inclusive competencies:

– knowledge of the pedagogical potential and risks of using digital and media resources in inclusive education of students with special educational needs (students with disabilities, behavioral and emotional disorders, in difficult or socially dangerous situations, gifted, migrants and foreign language speakers, representatives of national, religious and other minorities, etc.);

– the ability to productively use digital and media resources in inclusive education, taking into account individual requests and special educational needs of students, to use their teaching, educational, correctional and developmental potential;

– the ability to reduce the risks of social isolation of students with special educational needs in the context of digitalization of education;

– create child-adult communities that promote the inclusion of all students in the school community, using digital and media tools for these purposes (for example, watching and discussing national and foreign films about people with special educational needs, their education and upbringing).

Inclusive competencies contribute to the successful implementation of the teacher's communicative and organizational functions and the productive use of digital and media tools in solving specific tasks of inclusive education.

Communication competencies:

– knowledge of information-communicational, digital and media tools that allow to organize pedagogical communication in a virtual environment (messengers, social networks, chatbots, etc.);

– understanding the risks of the negative impact of virtual communication on the formation of emotional, spiritual, moral and other spheres of personality; the ability to reduce such risks, observing the necessary balance of live and virtual communication, developing emotional intelligence, etc.

– the ability to organize productive pedagogical communication in both real and virtual environments;

– the ability to organize both synchronous and asynchronous pedagogical communication, feedback with students, motivating them to positive personal changes.

Communicative competencies contribute to the successful performance of the teacher's communicative function and the solution of the tasks of organizing pedagogical communication in a virtual environment.

Health-saving competencies:

– knowledge of the risks of the negative impact of digital and media means on the physical, mental and spiritual health of students;

– the ability to reduce such risks through the proper organization of students' work with digital and conventional media resources and the selection of the content at such resources;

– the ability to recognize, prevent, overcome the phenomena of cyberbullying, disinformation of students, propaganda of nationalism, violence, aggression, cruelty in Internet sources;

– the ability to critically comprehend the content of the digital and media resources used, to develop such an ability in students.

Health-saving competencies contribute to the successful performance of the organizational function by the teacher and the solution of the tasks of preserving the health of students in the conditions of digitalization of education.

Developing competencies:

– the ability to discover and use the developing potential of digital and media tools for the purpose of their own development and the development of students;

– the ability to ensure the orientation of the educational process with the use of digital and media resources to the zone of proximal development of students, to create problematic learning situations with the use of digital and media resources;

– the ability to create pedagogical conditions conducive to the development of students' self-organization skills by means of working with digital and media resources in an electronic educational environment;

– the ability to organize the spiritual and moral education of students by means of digital and media resources (education of the culture of communication on the Internet, the exclusion of cyberbullying, etc.);

– the desire for constant self-development of digital competencies and media competencies, self-education in the field of digital didactics, media literacy.

Developing competencies contribute to the successful fulfillment by the teacher of the organizational function, the solution of developing pedagogical tasks with the help of digital and media means.

Humanistic competencies:

– awareness of the priority of humanistic pedagogical values in digital education, the priority of "human dimension" (V.V. Kraevsky) over technologization, prevention of situations when digital tools, and not the teacher, begin to control the logic, the content of the educational process, pedagogical communication;

– education of students as citizens of the digital world, accepting and implementing spiritual and moral values;

– the ability to ensure the orientation of the educational process with the use of digital and media resources for the development of students' subjectivity by including them in the design and implementation of this process, in the development of electronic educational content.

Humanistic competencies contribute to the successful implementation of the teacher's communicative function and the solution of the tasks of personal development of students in the process of digitalization of education.

Innovative competencies:

– the ability to create new pedagogical practices by means of integration of traditional media and digital means when the use of digital tools is not limited to the automation of individual pedagogical functions;

– ability to create your own electronic educational content, electronic educational resources;

– ability to implement web design of created electronic educational resources;

– the ability to create educational digital and media products together with students (educational gadgets, videos, online courses, 3d models, online lessons and lectures, electronic textbooks, tests, assignments, exercises, cognitive maps) etc.

Innovative competencies contribute to the successful implementation of the teacher's design and organizational functions and solving the tasks of modernization, improving the quality of the educational process implemented with the use of digital and media tools.

The relevance and expediency of the selected competencies were evaluated by experts, who were leading scientists in the field of pedagogy, digital didactics. Experts were asked to assess the relevance of each group of competencies in the range from 1 to 3 points (1 point – low, 2 points – average, 3 points – high). 11 scientists took part in the expertise. During the analysis of the results, the arithmetic average score was calculated and a hierarchy of competencies was built according to the relevance and demand of the competence (Table 1).

Table 1. Hierarchy of media competencies of a teacher (based on the results of an expert assessment)

Rank	Group of Competence	Average grade assigned by an expert
1	Innovative	3,9
2	Humanistic	3,7
3	Developing	3,6
4	Health-saving	3,2
5	Communicative	2,7
6	Inclusive	2,5
7	Design	2,4
8	Organizational	2,3
9	Orientation and constructive	2,1

Analysis of available experimental studies shows that teachers are experiencing a shortage of innovative media competencies, and technologization and orientation and constructive competencies are developed at the highest level. Thus, N. Efremova (Efremova, 2022) showed that 97.7 % of teachers are able to work with digital information (create files, print texts, scan printed documents, work with tables, etc.). 80.9 % are able to manage information (find, perceive, analyze, memorize and transmit), 71.8 % carry out self-development using digital means, 69.6 % use digital technologies for teaching/learning.

The author noted a shortage of teachers of the following competencies:

– communications and cooperation on the Internet (59.5 %);

– critical attitude to information (58.2 %);

– creation of educational media products (44.8 %);

– creation of digital educational products and environments (41.4 %);

– organization of project activities in the digital environment (39.4 %);

– conducting an expertise of electronic educational resources (33.0 %).

5. Conclusion

An important factor in the success of the use of digital and media tools in the educational process is the formation of media competencies among teachers. The basis for predicting the content of such competencies are pedagogical functions and tasks solved by a teacher using digital and media means. Generalization of scientific research and regulatory documents, systematization

of digital and media tools used by teachers and pedagogical tasks solved with their help made it possible to identify the following media competencies of a teacher: innovative, humanistic, developing, health-saving, communicative, inclusive, design, organizational, orientation and constructive. To form such competencies, it is advisable to use digital and media tools.

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