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***(Серія «Філологія», Серія «Педагогіка», Серія «Соціологія»,  
Серія «Культура і мистецтво», Серія «Історія та археологія»)***

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### **ORGANIZATION OF PEDAGOGICAL RESEARCH IN THE CONTEXT OF DISTANCE LEARNING**

**Abstract.** The article notes that the modern education system is undergoing a transformation driven by the active implementation of digital technologies and the widespread transition to distance learning. This necessitates a reevaluation of traditional approaches to organizing pedagogical research, as the distance learning environment requires new methods for data collection, processing, and analysis. Changes in the educational space, forms of interaction among participants in the educational process, and the extensive use of digital platforms create new conditions for conducting pedagogical science. Therefore, the study of issues related to the organization of pedagogical research in the context of distance learning is highly relevant and timely.

The article examines the features of organizing pedagogical research in a distance learning context, which has become particularly relevant due to the rapid development of digital technologies and the need to adapt the educational process to new realities. Theoretical foundations of pedagogical research, its interdisciplinary basis, and methodological approaches are considered, as well as the adaptation of traditional research methods to the online environment. Attention is focused on the advantages and limitations of the distance format, such as flexibility and accessibility, as well as issues of digital inequality, participant motivation, and the specifics of communication in virtual spaces. The main challenges associated with organizing pedagogical experiments, observations,



surveys, and data analysis in digital educational environments are justified. Practical recommendations are proposed to improve the effectiveness of the research process in the distance format, including the use of modern digital platforms, ensuring digital competence support for researchers and participants, and applying innovative methods for data collection and processing.

The results of the study may be useful for scholars, educators, methodologists, and anyone interested in advancing educational science in the context of digitalization and distance learning.

**Keywords:** pedagogical research, distance learning, digitalization of education, online research, digital educational platforms.

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## ОРГАНІЗАЦІЯ ПЕДАГОГІЧНОГО ДОСЛІДЖЕННЯ В УМОВАХ ДИСТАНЦІЙНОГО НАВЧАННЯ

**Анотація.** У статті зазначено, що сучасна система освіти переживає трансформацію, спричинену активним впровадженням цифрових технологій та масовим переходом на дистанційні форми навчання. Це зумовлює необхідність перегляду традиційних підходів до організації педагогічного дослідження, адже дистанційне середовище вимагає нових методів збирання, оброблення та аналізу даних. Зміна освітнього простору, форм взаємодії між учасниками освітнього процесу, а також широке використання цифрових платформ створюють нові умови для здійснення педагогічної науки. Відтак, дослідження проблем організації педагогічного дослідження в умовах дистанційного навчання є вкрай актуальним та своєчасним.

У статті досліджено особливості організації педагогічного дослідження в умовах дистанційного навчання, що стало актуальним у зв'язку із стрімким розвитком цифрових технологій та необхідністю адаптації освітнього процесу до нових реалій. Розглянуто теоретичні засади педагогічного дослідження, їхнє міждисциплінарне підґрунтя та



методологічні підходи, а також адаптацію традиційних методів дослідження до онлайн-середовища. Увагу зосереджено на перевагах і обмеженнях дистанційного формату, таких як гнучкість, доступність, й проблемах цифрової нерівності, мотивації учасників та специфіки комунікації у віртуальному просторі. Обґрунтовано основні виклики, пов'язані з організацією педагогічного експерименту, спостереження, анкетування та аналізу даних у цифровому освітньому середовищі. Запропоновано практичні рекомендації щодо підвищення ефективності дослідницького процесу в дистанційному форматі, серед яких використання сучасних цифрових платформ, забезпечення підтримки цифрової компетентності дослідників і учасників, а також застосування інноваційних методів збирання та оброблення даних.

Результати дослідження можуть бути корисними для науковців, педагогів, методистів та усіх, хто зацікавлений у вдосконаленні освітньої науки в умовах цифровізації та дистанційного навчання.

**Ключові слова:** педагогічне дослідження, дистанційне навчання, цифровізація освіти, онлайн-дослідження, цифрові освітні платформи.

**Problem Statement.** The current stage of educational development is characterized by a rapid transition to a digital environment, which significantly changes not only educational practice but also approaches to scientific activity, particularly the organization of pedagogical research. The active implementation of distance learning, intensified by global challenges, has led to a reconsideration of traditional forms and methods of scientific inquiry in pedagogy. Changes have affected methods of empirical data collection, the choice of diagnostic tools, communication between researchers and respondents, and the overall logic of the research process.

Distance learning creates both new opportunities for pedagogical research and a range of challenges. On one hand, digital tools allow for rapid organization of online surveys, observation of the educational process in virtual classrooms, and automated data processing. On the other hand, issues arise regarding the reliability of collected data, participant motivation, technical limitations, and the maintenance of academic integrity and ethical standards during distance interaction. There is a pressing need to develop new methodological approaches adapted to online realities to ensure high-quality research outcomes.

The organization of pedagogical research in distance learning is still insufficiently systematized in the scientific literature. The lack of clear methodological guidelines complicates the work of scholars, students, and educators who aim to conduct research corresponding to modern conditions. Therefore, this topic requires theoretical reflection and practical specification.





**Analysis of Recent Research and Publications.** The organization of pedagogical research in distance learning is actively studied by both domestic and foreign researchers. S. Sysoieva examines the methodological foundations of pedagogical science, particularly in the context of digitalization, focusing on innovations in pedagogy. O. Ovcharuk emphasizes teacher digital competence and the influence of the digital environment on teaching methodology and research. N. Demianenko investigates the organization of the educational process in blended and distance learning contexts and pedagogical monitoring. L. Khomich studies the specifics of pedagogical research in digital environments, focusing on developing research culture in future educators. N. Morse specializes in e-learning, digital tools in research, and pedagogical analytics.

John W. Creswell adapts traditional methods to online education contexts. Michael G. Moore studies teaching and research in distance learning, Terry Anderson develops theories of online education and virtual research, and Tony Bates examines the impact of technology on higher education, including research methodology in digital transformation.

**Unresolved Aspects of the Problem.** Despite numerous studies on this issue, the specifics of organizing pedagogical research in distance learning remain insufficiently addressed. In particular, the main challenges have not been fully outlined, and effective mechanisms for overcoming them have not been developed.

**Purpose of the Study.** The purpose of this article is to substantiate the specifics of organizing pedagogical research in distance learning, identify the main challenges, and explore effective ways to address them, taking into account the peculiarities of the digital educational space.

To achieve this aim, the following objectives were set: analyze the theoretical foundations of pedagogical research and its adaptation to distance learning; characterize the specifics of organizing the research process in the context of education digitalization; identify advantages and limitations of the distance research format; propose practical recommendations for effective organization of pedagogical research in an online environment.

**Presentation of the Main Material.** Pedagogical research is a key component of scientific activity aimed at studying learning and educational processes, developing theoretical foundations of pedagogy, and improving educational practice.

It covers a wide range of issues, from developing teaching and assessment methods to analyzing the influence of social, psychological, and technological factors on learner development. Pedagogical research creates effective strategies that enhance educational quality and adapt the educational process to contemporary challenges.





Pedagogical research is a specific form of scientific knowledge aimed at analyzing, reflecting on, and improving educational processes and phenomena. Its primary objective is to identify patterns, principles, conditions, and means that ensure the effectiveness of the educational process. Theoretical foundations are formed through the interaction of pedagogy with other disciplines – philosophy, psychology, sociology, cybernetics – providing an interdisciplinary nature of research activity. Key concepts include objectives, objects, subjects, hypotheses, and a system of methods (theoretical, empirical, statistical) and principles (scientific rigor, integrity, validity, practical orientation).

The concept of "pedagogical research" is defined in the scientific literature as a systematic study of pedagogical phenomena, processes, and regularities to improve educational practice and develop pedagogical science. According to L. Shkolnik, pedagogical research is a distinct form of scientific cognition aimed at identifying learning and teaching patterns, developing new or improving existing pedagogical technologies, forms, and methods of educational activity [4].

In classical conditions, pedagogical research involves direct interaction with participants through lessons, observations, interviews, surveys, and experiments in a real educational environment. However, the digitalization of education requires transforming traditional research approaches. Specifically, it necessitates updating researchers' tools, revising data collection and analysis methods, and engaging digital platforms (Zoom, Google Forms, Moodle, Microsoft Teams) as fully functional environments for pedagogical experiments, observations, and surveys.

The concept of "distance learning" is interpreted as an educational form based on the use of information and communication technologies (ICT) to ensure interaction among learners at a distance. According to the Regulation on the Distance Form of Obtaining Complete General Secondary Education, distance learning is the organization of the educational process in conditions of physical separation of participants, primarily mediated interaction, implemented through modern educational and ICT (digital) technologies [2].

Most scholars consider distance learning as an individual process of transmitting and assimilating knowledge, skills, and cognitive activity methods, enabling participants to achieve educational objectives through mediated interaction within specialized digital educational environments and platforms [3].

According to L. Kravtsov, distance learning is a set of technologies ensuring the delivery of core material, interactive interaction between students and teachers, opportunities for independent work, and engagement in learning activities [1, p. 75].

The characteristics of distance learning – lack of direct contact between subjects, use of electronic platforms, and variety of digital tools – create new



conditions affecting the organization and conduct of pedagogical research. It is essential to study how these conditions influence educational effectiveness, identify difficulties faced by educators and learners, and determine optimal approaches for organizing pedagogical research in digital environments to ensure quality and accessible education.

**Organization of the Research Process in the Context of Education Digitalization.** The digitalization of education necessitates the implementation of updated approaches to analyzing educational phenomena that take place in the digital space. A defining feature of contemporary research is the perception of the digital educational environment not only as a tool but also as a full-fledged object and context of study. Digital platforms such as Zoom, Google Classroom, Moodle, Microsoft Teams, as well as cloud services and interactive educational resources, today serve not merely as means of organizing learning but have become the subject of careful examination by pedagogical science. Researchers analyze their functionality, ease of use, impact on the quality of the educational process, features of interaction between learning participants, levels of engagement of students and teachers, specifics of digital communication, and their influence on motivation and learning outcomes. In this process, a range of factors is taken into account: technical parameters of digital environments (accessibility, stability, compatibility with various devices), interface characteristics (ease of navigation, ergonomic design), communication capabilities (availability of effective feedback, collaboration tools, interactivity), as well as psychological comfort (cognitive load, emotional well-being, influence of perceived isolation). Consequently, modern pedagogical research conducted in the context of digitalization requires not only the updating of research tools but also a comprehensive understanding of the digital environment as a multifaceted space that significantly transforms the conventional logic of teaching, learning, and scientific analysis.

In the process of organizing pedagogical research in the context of education digitalization, the ways of interaction between the researcher and respondents are significantly transformed. Whereas such interaction previously took place primarily through direct, face-to-face communication, it is now carried out mainly via remote communication tools – video meetings (on platforms such as Zoom, Google Meet), email correspondence, participation in forums and chats, as well as through online surveys on specialized services. This change in the form of interaction, on the one hand, opens up new opportunities: it allows faster data collection, engages respondents from different regions, and optimizes time and material resources. At the same time, it presents certain challenges, including the possible reduction in data quality due to technical interruptions, formalization of communication, and difficulties in establishing a trusting relationship. Remote



communication often lacks emotional depth, which is important for accurately understanding responses in in-depth interviews or surveys, especially when personal or sensitive topics are being explored. Additionally, online interaction complicates the recording of respondents' non-verbal signals, which usually help interpret the content of statements more accurately. This necessitates rethinking approaches to organizing ethical interaction, finding new methods for establishing trust, and using digital tools capable of ensuring deep and effective communication in a virtual environment.

In conditions of active digitalization of the educational space, the intensive use of digital tools for collecting empirical data also becomes an important component of organizing pedagogical research. Classical research methods – questionnaires, surveys, observation, and interviews – are successfully transformed into an online format through the use of specialized tools and services. In particular, for implementing questionnaires and surveys, researchers increasingly turn to resources such as Google Forms, SurveyMonkey, and Microsoft Forms, which ensure prompt coverage of a wide audience, automated processing of responses, and convenient visualization of results. For a deeper analysis of the features of distance learning and interaction between participants in the educational process, technical tools for recording digital activity are used, including recording video lessons, saving communication screenshots, and using log files accumulated on online educational platforms. This allows obtaining data on user behavior, levels of activity, and the intensity and regularity of participation in the educational process. The implementation of learning analytics technologies – digital analytics of educational activity – is of particular value, encompassing a comprehensive study of digital traces left as a result of users' interaction with educational resources. Such data may include frequency of resource visits, volume of processed content, participation in forums and discussions, task completion, and receipt of feedback. This enables the researcher not only to analyze the effectiveness of applied educational technologies but also to identify problem areas in organizing learning, predict behavioral trends of students, and assess their engagement and adaptability to the digital environment. Digital methods of data collection significantly enhance the analytical potential of pedagogical research in a remote format, opening new opportunities for a comprehensive study of contemporary educational processes.

It should be noted that in the context of education digitalization, methodological flexibility becomes one of the main competencies of a modern pedagogical researcher, as it implies the ability to adapt traditional quantitative and qualitative methods to new conditions of online research. In the virtual educational environment, classical empirical approaches take on a different implementation format: for example, a pedagogical experiment can be organically





embedded in an electronic course hosted on platforms such as Moodle, Google Classroom, or other LMS, where participants interact with learning materials, complete tasks, take tests, while the researcher can record changes, analyze the process, and obtain detailed digital activity traces. Observation, in turn, transforms into the study of recorded video lessons conducted on Zoom or Microsoft Teams, allowing repeated review and analysis of participants' communicative and behavioral dynamics. Conducting interviews is carried out through online video platforms or specialized services, where factors such as audio and video quality, limitations of non-verbal communication, visual contact, and technical obstacles must be considered. Qualitative data can be collected through the analysis of forum messages, chat interactions, and responses to open-ended questions in online surveys, providing deeper insight into respondents' thoughts, motivation, mood, and communication characteristics. Quantitative research methods, particularly statistical processing of results, are greatly simplified through built-in tools of digital platforms or specialized software, allowing rapid processing of large datasets and accurate interpretation of results. Thus, methodological flexibility not only contributes to maintaining the validity and reliability of research in a digital format but also provides broad opportunities for creative scientific analysis, adaptation to digital conditions, and expansion of the research toolkit considering technical and communicative capabilities.

In the process of organizing pedagogical research in the context of education digitalization, issues of ethics and safety become particularly relevant and require careful consideration at all stages of scientific activity.

Conducting research in a virtual environment involves not only adhering to generally recognized ethical standards inherent to traditional empirical approaches but also considering the specifics of digital communication, which encompasses procedures for collecting, processing, storing, and disseminating data online. One of the priority aspects is obtaining informed consent from participants, which must be recorded digitally through online surveys, email, or specialized web forms, with a detailed description of the research purpose, duration, methods, potential risks, and the right to withdraw at any stage. Equally important is ensuring the confidentiality of respondents' personal data stored digitally: the researcher must maintain an appropriate level of security, including the use of encryption methods, access restrictions, and management of information risks in accordance with current legislation. Protecting respondents' privacy during research on open digital platforms, such as Zoom, Google Meet, social networks, and forums, presents a particular challenge due to the potential for third-party interference or personal information leaks. In this context, the researcher must ensure anonymity, avoid public disclosure of personal data, and carefully process results before publication to prevent identification of



participants. Ethics and safety in the digital educational environment are not secondary concerns but a central condition for conducting high-quality, responsible, and lawful pedagogical research.

Within the organization of the research process in digital education, ensuring verification and validity of results is of particular importance, as the digital environment presents researchers with specific challenges related to reliable data collection and accurate interpretation of empirical data. The online research format can lead to information distortion due to various technical faults, such as internet interruptions, signal transmission delays, partial data loss, or premature termination of research procedures, which directly affects the completeness and accuracy of recorded results. Additionally, virtual interaction often involves decreased participant motivation, as they may engage superficially with online surveys or experiments, provide inconsistent, formulaic, or inattentive responses that do not reflect their true opinions. This is especially critical for studies requiring in-depth analysis or prolonged, focused participation. Under such conditions, the researcher must ensure a higher level of data reliability through careful planning, clear instructions for participants, piloting of instruments, regular technical monitoring, and prompt resolution of identified issues. An important element is the use of multiple information sources, various data collection methods (e.g., questionnaires, interviews, digital trace analysis), and different groups of respondents or researchers for cross-verification of results and minimizing the risk of random or biased conclusions. The use of mixed methods is also advisable to compensate for weaknesses of both quantitative and qualitative approaches in remote research. Verification procedures in the digital environment may include repeated data collection, checking the logical consistency of responses, and the use of digital technologies to detect anomalous participant behavior that may indicate inauthentic engagement.

Thus, in the context of education digitalization, the organization of the research process acquires new qualitative features that necessitate a revision of established methodological approaches and research technologies. The virtual educational environment requires the researcher not only to have a high level of digital literacy but also to adapt quantitative and qualitative methods to online formats, ensuring data reliability and validity through combined approaches and modern digital data processing tools.

Having determined the specifics of organizing pedagogical research in a digital environment, it is necessary to separately consider the advantages and challenges faced by researchers in the distance format. One of the most significant advantages of the remote research format is its adaptability and convenience, which provide comfortable organization of research activities for both the researcher and participants. The use of modern digital technologies allows stages





such as data collection, questionnaires, interviews, or observation to be conducted at any convenient time without being tied to a specific location or fixed schedule. For example, using online platforms like Google Forms or SurveyMonkey, respondents can answer questions at a time convenient for them, which is particularly relevant for busy individuals or those in different time zones. The researcher also gains the ability to process data gradually, coordinating the pace of work with their workload and available resources. Moreover, the remote format allows combining research activities with daily responsibilities, which is especially relevant for those who work or study. For instance, a university lecturer can organize interviews with participants via Zoom or Google Meet in the evening without disrupting their regular teaching schedule. Such flexibility not only optimizes the research process itself but also promotes greater engagement and active participation of respondents. Another important advantage of the remote research format is the reduction of material and time-organizational costs, making this approach particularly attractive for researchers with limited resources. Unlike traditional face-to-face research, the online format does not require expenses for renting rooms for meetings, focus groups, or conferences, and avoids the need to print questionnaires, instructions, and other accompanying documentation normally used in paper form. For example, instead of organizing a survey in a classroom, the researcher can create an electronic form in Google Forms, Microsoft Forms, or SurveyMonkey and send it to potential respondents via email or messengers, significantly reducing costs for materials and logistics. Additionally, the use of video communication tools such as Zoom, Google Meet, or Microsoft Teams eliminates expenses for transportation, accommodation, and per diems that are usually required for in-person meetings, especially in regional or international studies. As a result, the remote format not only optimizes costs but also promotes rational use of resources, which is particularly important for researchers working within limited funding or grant/project-based initiatives.

An important advantage of the remote research format is also the expanded access to the target sample, allowing the engagement of a wider spectrum of respondents regardless of location, social status, or physical limitations. Unlike traditional methods, which are usually limited by specific locations or participant availability for face-to-face contact, online research enables interaction with people from different regions of the country and abroad. For example, a researcher can, without leaving their workplace, send a survey or organize a video interview for representatives of institutions from different cities, ensuring not only geographical diversity but also improving sample representativeness. Remote tools also allow the inclusion of individuals with limited mobility, such as people with disabilities, the elderly, or those living in hard-to-reach areas where in-person events are difficult or impossible.



Data collection and processing in remote research are characterized by high efficiency, convenience, and a significant degree of automation, which greatly facilitates the researcher's work at every stage of the study. Thanks to digital platforms such as Google Forms, Microsoft Forms, SurveyMonkey, or LimeSurvey, questionnaires can be conducted online, reaching a wide audience of respondents quickly and without significant costs. Responses are automatically saved in electronic spreadsheet format, simplifying preliminary review and further analysis. Using Google Forms, for example, the researcher can immediately view summary statistics, sort and filter data, or export it to Excel or Google Sheets for deeper processing. In addition to quantitative data collection, the remote format enables qualitative methods – online interviews, focus groups, expert surveys – via Zoom, Skype, etc. A significant advantage of such formats is the ability to record meetings, saving time and reducing the likelihood of losing important information fragments. After data collection, analytical processing is also simplified using software for quantitative analysis – SPSS, R, Excel, Google Data – which allows rapid calculations, building visualizations, charts, and graphs.

It is also worth noting that anonymity and confidentiality are among the significant advantages of the remote research format, as they create conditions for increasing respondents' trust, encourage more open answers, and ensure compliance with the ethical principles of scientific work. Online surveys make it possible to organize the process so that participants do not disclose their personal data, while the researcher, provided that the rules are followed, cannot identify the respondent unless it is stipulated by the research design. This approach is particularly important when studying sensitive topics, such as issues of professional burnout among healthcare workers or cases of discrimination in the educational environment. In conditions of anonymity or partial anonymity, participants feel more protected, are more willing to share their experiences, fear less the possible negative consequences, and provide more sincere answers. For example, teachers who are afraid of disclosing critical comments about the leadership of their educational institution can confidently take part in a survey, being assured of the protection of their identity.

The introduction of modern digital technologies into the remote research format significantly expands the horizons of scientific activity, making it faster, more diverse, and of higher quality. The use of various online platforms and software tools allows researchers to effectively collect, analyze, and process data, as well as maintain communication with participants regardless of their location. Digital technologies contribute to the reliable storage and protection of information, as modern platforms offer access settings and data encryption, ensuring the security of research materials and the confidentiality of participants.



As a result, researchers obtain a flexible and powerful toolkit that not only improves the quality and speed of research but also helps adapt scientific activity to modern challenges and conditions.

However, the remote research format has a number of limitations that can affect the quality and completeness of the data obtained, as well as the organization of the research process itself. A low level of motivation and engagement among participants is one of the key problems of remote research, which can significantly influence the quality and reliability of the results obtained. The absence of direct contact with the researcher often reduces respondents' interest in full and sincere participation, as they do not feel personal responsibility or emotional connection with the process. For example, during online surveys, many participants may rush through their answers without paying proper attention to the questions or leave the questionnaire incomplete, which results in incomplete or low-quality data. Online interviews or focus groups often suffer from distractions when participants simultaneously engage in other activities, which reduces their concentration and the effectiveness of communication.

In addition, in remote formats, it is more difficult to control respondents' behavior and attention, since it is impossible to directly observe what happens off camera or during the completion of a questionnaire. The lack of personal interaction also decreases the willingness to participate in long or complex studies that require significant time and effort. For instance, participants may skip online focus group sessions or drop out after a few questions due to a loss of interest. Moreover, technical difficulties or inconveniences, such as insufficient skills in working with digital platforms or poor internet connectivity, can demotivate respondents. The absence of direct support or encouragement from the researcher also leads to participants not feeling the importance of their participation, which negatively affects the quality of the collected information.

Technical difficulties represent one of the characteristic limitations of the remote research format, which can seriously affect its effectiveness and reliability. One of the main obstacles is unstable or excessively slow internet connectivity, which makes it impossible for respondents to fully participate in online interviews, focus groups, or even while filling out electronic questionnaires, especially in remote settlements or areas with underdeveloped digital infrastructure. For example, during an interview conducted via Zoom, a participant may unexpectedly lose connection at a crucial moment of discussion, disrupting communication integrity and complicating further processing of the collected information.

Additionally, some respondents lack sufficient digital skills, which becomes an additional obstacle, as they find it difficult to navigate web interfaces, launch a questionnaire, give consent to recording, or send responses. As a result,



the researcher is forced to spend resources on technical support instead of focusing on the substantive part of the research. Sometimes digital platforms are incompatible with certain devices or operating systems, which completely excludes part of potential participants from the research process. It should also be taken into account that free versions of digital services often have limited functionality, while expanded features require financial costs that are not always available to the researcher. All these aspects can slow down research procedures, negatively affect the volume and quality of collected data, and sometimes even cause partial data loss.

To avoid such difficulties, it is advisable to check selected digital tools in advance, prepare clear step-by-step instructions for respondents, provide for backup communication channels (e.g., phone calls or text messages), and ensure technical support at all stages of data collection.

Another important challenge of the remote research format is the limitations in the possibilities of observation and emotional interaction, which significantly affect the depth of understanding respondents' behavior and the reliability of the collected data, especially within qualitative methods. The absence of face-to-face contact between the researcher and the participant complicates the recording of nonverbal elements such as facial expressions, gestures, postures, intonations, and microexpressions, which often carry valuable information complementing the content level of responses. During remote interviews or focus groups via Zoom or other platforms, respondents often keep cameras off or use them in a limited way, which reduces the quality of interpersonal interaction and prevents the establishment of emotional contact.

Unlike traditional face-to-face meetings, where it is easier to create a trusting atmosphere and flexibly respond to emotional nuances, the online format often results in a formal style of communication, superficial responses, and the loss of important interpretive details. Therefore, when planning remote research, it is important to take these limitations into account and strive to enliven interaction as much as possible—for example, by encouraging participants to turn on their cameras, establishing comfortable and trusting contact already at the invitation stage, and combining online methods with other data sources to increase the completeness and accuracy of results.

In the context of remote research, the issue of verifying the reliability of collected data also acquires particular importance, since the researcher's limited influence on participation conditions, respondent identification, and their responsibility for the information provided creates risks for the accuracy of results. The absence of personal contact does not guarantee that the answers are given by the participant who meets the sampling criteria, or that the responses are deliberate, thoughtful, and sincere, rather than random or insignificant.





For instance, when filling out online questionnaires, respondents often treat the process carelessly, answering hastily or not finishing the survey at all, and sometimes the questionnaire may be filled out by another person or duplicated, affecting representativeness. In remote interviews and focus groups conducted via video communication, it is also more difficult to assess the authenticity of emotional expressions, to notice contradictions or insincerity in statements, which are usually observed during face-to-face interaction. At the analysis stage, verification of reliability can be carried out by cross-checking with other available data, clarifying information directly with respondents, or involving experts to validate response content. Thus, ensuring reliability in remote research requires a comprehensive approach that includes well-developed tools of control, verification, and analysis, which reduces the risks of data distortion and increases their validity. It should also be emphasized that not all methods can be effectively transferred to the digital environment, which significantly limits the variability of choosing research tools depending on the set goals and objectives. A significant part of methodologies, particularly those based on personal contact, observation of behavior in natural conditions, the use of physical objects, or special equipment, lose their effectiveness in the online format or become completely unsuitable for application. For example, the method of participant observation, which requires the researcher's direct presence among participants, does not allow capturing the full context of events, interpersonal reactions, and group behavior dynamics in an online environment. Methods that require physical interaction, such as psychophysiological measurements, testing involving technical devices, or joint performance of practical tasks, are also almost impossible to fully implement remotely. Certain types of research related to ethnographic observations, art therapy, or body-oriented approaches require a special spatial and emotional environment, which is difficult to create using digital tools.

This not only limits the research toolkit but also complicates obtaining comprehensive, in-depth information. As a result, researchers are forced to adapt or simplify methods, and sometimes completely abandon certain approaches in favor of those better integrated into the remote format, which may negatively affect the completeness of analysis and the quality of empirical results.

The analysis of strengths and weaknesses of the remote format of pedagogical research shows that the digital environment simultaneously provides new tools for collecting and processing information, promotes flexibility and dynamism of the research process, but at the same time poses serious demands for overcoming technical, methodological, and ethical difficulties. This highlights the need to develop clear practical mechanisms that would help reduce risks and ensure effective research organization in the conditions of digitalization of the educational space.





For the high-quality organization of pedagogical research in the context of distance learning, it is necessary to take into account a number of practical aspects determined by the specifics of the online environment, which ensure the reliability, effectiveness, and ethical soundness of the research process.

First of all, it is important to take care of technical preparation: to check the stability of the Internet connection, to ensure the uninterrupted operation of online platforms for collecting and processing data, to test the compatibility of digital tools with different types of devices used by participants. It is essential to provide respondents in a timely manner with instructions regarding the format, algorithm, and timing of participation in the study, as well as to anticipate the possibility of prompt technical support in case of difficulties.

One of the priorities is compliance with the standards of digital ethics: this implies obtaining informed consent in electronic form, guaranteeing the confidentiality of personal data, and protecting the information collected during the research in accordance with current legislation.

To increase the reliability of the results, it is recommended to use a combination of different methods of information collection (for example, online surveys, interviews, analysis of digital traces), as well as mixed methods (quantitative and qualitative), which allow the data to complement each other and provide a deeper analysis of the studied phenomena. It is advisable to apply modern digital tools for processing, visualization, and recording of research results. An important stage is preliminary testing of the instruments on a pilot sample in order to identify possible errors, technical shortcomings, or hidden obstacles in understanding the tasks.

In the process of organizing the study, it is important to create favorable conditions for engaging respondents, including through the use of gamification elements, individualized feedback, recognition of the value of each participant's contribution, as well as flexibility in planning the time and format of interaction. Special attention should be paid to recording not only the substantive but also the behavioral manifestations of participation – pace, activity, sequence of responses, etc., which will help to interpret the collected data more accurately.

In addition, it is important to maintain readiness to adapt the research strategy in the event of changes in the digital environment or technical difficulties, while preserving the integrity of the scientific approach, the validity, and the objectivity of the obtained results.

**Conclusion.** The organization of pedagogical research in the context of distance learning emerges as both an important and a complex direction of modern pedagogical science, which requires rethinking traditional methods in accordance with the specifics of the digital educational environment. The analysis of theoretical provisions and practical experience demonstrates that effective



implementation of research in an online format is possible only under the condition of applying modern digital technologies, ensuring an adequate level of digital literacy of all participants, adherence to ethical standards, and the use of innovative approaches to data collection and processing. The proposed recommendations can serve as an effective tool for increasing the efficiency of educational research in the digital age, contributing to the development of pedagogical science and the improvement of the educational process under conditions of educational transformation.

**Prospects for further scientific exploration** in the field of organizing pedagogical research in the context of distance learning may include the integration of distance pedagogical research with traditional research formats to create hybrid models that take into account the advantages of both approaches, as well as the monitoring and evaluation of the quality of pedagogical research in the distance format at the level of educational institutions and regions with the aim of improving methodological and organizational approaches.

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