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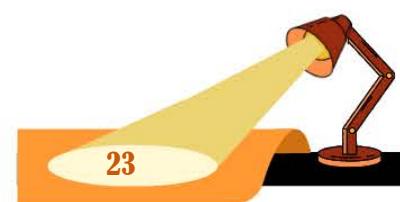
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DIGITAL LITERACY IN THE TRAINING OF FUTURE PRIMARY SCHOOL TEACHERS, LEGAL RESTRICTIONS, DATA PROTECTION AND PARENTAL REQUEST

Abstract. The aim of the article is to substantiate the content and components of digital literacy in the training of future primary school teachers, taking into account legal restrictions, personal data protection and typical parental requests regarding digital practices at school. The object is the process of professional training of future primary school teachers in the conditions of using digital tools, which involves the lawful processing of children's personal data and communication with parents. The article examines digital literacy in the training of future primary school teachers as the basis of professional readiness for work in an educational environment where materials, assessment and communication are increasingly supported by digital platforms and services. It is determined that the digital literacy of a teacher encompasses technical skills, methodological lesson design, media education, the development of critical thinking of students, supporting the digital well-being of the child and the formation of a culture of safe behavior in the digital environment. The pedagogical risks associated with excessive screen time, cyberbullying, uncontrolled contacts and the transfer of school conflicts to group chats are characterized, and it is proven that the prevention of these risks should be part of the teaching methodology, not an addition to it. The legal block establishes that typical educational practices, including registration on platforms, use of third-party applications for assessment, conducting class chats, storing students' work in cloud storage, as well as publishing photos and videos from educational events, are related to the processing of children's personal data and require transparent procedures. The need to adhere to the principles of data minimization, targeted use, limitation of storage periods, access control and secure settings of services is justified, as well as coordinating the teacher's actions with the policies of the educational institution and clearly informing families about the rules for data processing is established. It is established that a professional response to such





requests requires a combination of pedagogical reasoning with legal correctness, as well as a willingness to offer safe alternatives without discriminating against the student and without worsening his access to education.

Keywords: digital literacy, training of future teachers, primary school, personal data protection, legal restrictions, privacy, cybersecurity, communication with parents, parental requests, digital well-being of the child, technologies based on artificial intelligence.

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ЦИФРОВА ГРАМОТНІСТЬ У ПІДГОТОВЦІ МАЙБУТНІХ УЧИТЕЛІВ ПОЧАТКОВОЇ ШКОЛИ, ПРАВОВІ ОБМЕЖЕННЯ, ЗАХИСТ ДАНИХ І БАТЬКІВСЬКІ ЗАПИТИ

Анотація. Метою статті є обґрунтування змісту та складових цифрової грамотності у підготовці майбутніх учителів початкової школи з урахуванням правових обмежень, захисту персональних даних і типових батьківських запитів щодо цифрових практик у школі. Об'єктом є процес професійної підготовки майбутніх учителів початкової школи в умовах використання цифрових інструментів, що передбачає правомірне опрацювання персональних даних дітей та комунікацію з батьками. У статті розглянуто цифрову грамотність у підготовці майбутніх учителів початкової школи як основу професійної готовності до роботи в освітньому середовищі, де матеріали, оцінювання та комунікація дедалі частіше підтримуються цифровими платформами й сервісами. Визначено, що цифрова грамотність учителя охоплює технічні навички, методичне проєктування уроку, медіаосвіту, розвиток критичного мислення учнів, підтримку цифрового добробуту дитини та формування культури безпечної поведінки в цифровому середовищі. Охарактеризовано педагогічні ризики, пов'язані з надмірним часом перед екраном, кібербулінгом, неконтрольованими контактами та перенесенням шкільних конфліктів у групові чати, і доведено, що запобігання цим ризикам має бути частиною методики навчання, а не додатком до неї. У правовому аспектах встановлено, що типові освітні практики, зокрема реєстрація на платформах, використання сторонніх застосунків для оцінювання, ведення класних чатів, зберігання робіт учнів у хмарних сховищах, а також публікація фото й відео з освітніх заходів, пов'язані з опрацюванням персональних даних дітей і потребують прозорих процедур. Обґрунтовано потребу дотримуватися принципів мінімізації даних, цільового використання, обмеження строків зберігання, контролю доступу та безпечних налаштувань сервісів, а також встановлено необхідність узгодження дій учителя з політиками освітньої установи й чіткого інформування сімей про правила опрацювання



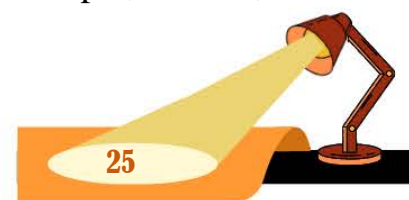


даних. Установлено, що професійна відповідь на такі запити потребує поєднання педагогічного обґрунтування з правовою коректністю, а також готовності пропонувати більш безпечні альтернативи без дискримінації учня і без погіршення його доступу до освіти.

Ключові слова: цифрова грамотність, підготовка майбутніх учителів, початкова школа, захист персональних даних, правові обмеження, приватність, кібербезпека, комунікація з батьками, батьківські запити, цифровий добробут дитини, технології на базі штучного інтелекту.

Introduction. Digital literacy in the training of future primary school teachers is now becoming not just an additional skill, but a basic condition for high-quality education for children who interact with screens, applications and online services from an early age. Schools are increasingly using electronic diaries, homework platforms, cloud documents, digital educational materials, as well as communication with parents via messengers or educational systems. This means that the teacher must be able to select tools that support the educational goal, explain the rules of safe behavior on the Internet, develop children's critical thinking about information, and at the same time manage the digital classroom in a way that does not increase the risks of cyberbullying, gadget addiction or uncontrolled access to unwanted content. It is also important for the future teacher to understand how the digital environment affects the attention, motivation and social skills of younger schoolchildren, and how to build partnerships with families where the level of digital culture can be very different. In such conditions, the relevance of the topic is enhanced by the fact that errors in the teacher's digital practices are reflected not only on the quality of the lesson, but also on the parents' trust in the school, on the child's psychological comfort, and sometimes on the reputation of the educational institution. A particular acuteness of the topic is associated with legal restrictions, personal data protection and parental requests, which have become commonplace in the daily work of a teacher. Even a simple action, such as publishing a photo from a lesson, creating a shared online space for the classroom, using a third-party application for tests or storing student work in the cloud, touches on issues of the legality of data processing, the principles of minimization, retention periods, access by third parties and information security. Parents can request not to photograph their child, delete materials, provide copies of the collected data, limit communication only to official channels, or explain why a particular service is necessary for learning. A future teacher must be prepared for such situations and be able to act correctly, combining pedagogical expediency with legal responsibility, as well as respect for the rights of the child and the position of the family.

Literature Review. In scientific publications devoted to the digital literacy of future primary school teachers, there is a noticeable line connecting the professional competences of the teacher with the ability to meaningfully apply information and communication technologies in the educational process [1-10]. For example, Natalia,





Veronika, Nataliia, B., and Iryna, H. [1] consider the formation of professional competences of primary school teachers through the use of information and communication technologies, emphasizing that digital tools should strengthen teaching methods, not replace them. G. Beauchamp [2] analyzes the use of interactive whiteboards in primary schools and offers a framework for the transition to the effective use of this tool, where pedagogical training, changing the role of the teacher and gradual integration of technology into the structure of the lesson are essential. The value of this work for our topic is that it demonstrates a typical problem of technological innovations in school, when the presence of equipment does not guarantee a high-quality educational effect without thoughtful methodological support and change management. Y. Weinberger [3] addresses qualitative research methods as a tool for working with educational complexity, emphasizing the importance of in-depth analysis of practices, motivations, and situational decisions. A. Stremmel [4] emphasizes the value of teacher research as a path to professional and personal growth through inquiry, observation, analysis, and reflection.

Aim and objects. The aim of the article is to substantiate the content and components of digital literacy in the training of future primary school teachers, taking into account legal restrictions, personal data protection and typical parental requests regarding digital practices at school. The object is the process of professional training of future primary school teachers in the conditions of using digital tools, which involves the lawful processing of children's personal data and communication with parents.

Results. Digital literacy in the training of future primary school teachers means much more than the ability to turn on devices or use individual applications. It includes the ability to search for and verify information, understand how digital media and content delivery algorithms work, create your own educational materials, organize interaction in the online environment, as well as ensure the safety of children and responsible communication with adults. For primary school, this is of particular importance, because younger students are only forming academic discipline, attention and social skills, and any digital tool can both support development and increase distraction, overwork, conflicts or risks of unwanted contacts. Therefore, a future teacher must be able to see a didactic goal behind technology, understand age restrictions, build rules for digital behavior in the classroom, explain to children the basic principles of a safe presence on the Internet, and at the same time not replace live learning with an endless number of interactive tasks (Table 1).





Table 1. Essential foundations of digital literacy in the training of future primary school teachers

Foundation area	What it includes in teacher training	Why it matters in primary education
Pedagogical integration of digital tools	Planning lessons where the tool supports a clear learning outcome, selecting age-appropriate apps and platforms, designing instructions that children can follow independently, combining digital and non-digital activities, adapting resources for diverse learners	Prevents “technology for technology’s sake”, keeps attention on core skills like reading, writing, and numeracy, increases engagement without overload, supports inclusion and differentiated instruction
Digital safety, ethics, and child well-being	Teaching online safety basics, building classroom rules for respectful communication, preventing cyberbullying and harmful sharing, managing screen time and fatigue, introducing digital citizenship and empathy, discussing ethical limits of monitoring and control	Protects young children who have limited risk awareness, reduces anxiety and conflict, supports healthy routines, helps children develop safe habits early, strengthens a positive classroom climate
Data protection and legal responsibility	Understanding what counts as personal data, applying data minimisation and purpose limitation, using privacy-by-default settings, safe storage and access control, choosing approved communication channels, documenting consent and responding to data-related incidents	Avoids unlawful data processing and reputational harm, reduces the risk of leaks, ensures responsible use of photos and learning results, builds institutional trust and accountability

Formed by the author

In teacher education programs, digital literacy should be embedded in teaching methodology, pedagogical psychology, and practice, rather than existing as a separate technical course. The future teacher should learn to design lessons using digital tools in a way that helps to shape reading, writing, mathematical concepts, and natural observations, while remaining accessible to children with different educational needs. This includes working with visual support, audio materials, simple interactive exercises, elements of gamification, but without losing content, as well as developing skills in assessing learning outcomes in a digital environment without excessive control and pressure (Table 2).





Table 2. Directions for improving digital literacy in the training of future primary school teachers

Direction	Practical focus for implementation in teacher education
Curriculum-wide integration	Embed digital literacy across pedagogy, psychology, assessment, and teaching methods, ensure every course includes at least one digital teaching scenario, connect tool use to learning objectives and child development, avoid isolated “computer skills” modules
Case-based and simulation training	Use realistic cases on parental requests, consent for photos and videos, safe class communication, data deletion requests, tool refusal scenarios, and incident response drills, practise writing short professional messages to parents and school leadership
Structured evaluation of tools and platforms	Teach criteria-based selection, learning value, accessibility and inclusion, usability for young children, transparency of data processing, security settings, risks of third-party tracking, and how to choose low-data alternatives that still meet teaching goals
Reflective practice, mentoring, and school partnerships	Provide micro-teaching sessions with feedback, supervise digital lesson planning during practicum, analyse mistakes and near-miss incidents safely, develop personal checklists for privacy and safety, encourage teacher inquiry projects to improve real classroom routines

Formed by the author

Legal restrictions and data protection are central to this topic, because in primary school, data processing concerns a particularly sensitive category, namely children's data. Any digital interaction can create a digital trace, such as names, photos, voice recordings, learning task results, attendance information, behavioral notes, technical device identifiers, and sometimes health or special educational needs data. The teacher must understand that the lawfulness of data processing is not limited to formal consent, as purpose, minimization, storage limitation, access control, secure settings, the choice of reliable services and transparency for parents are important (Fig. 1).



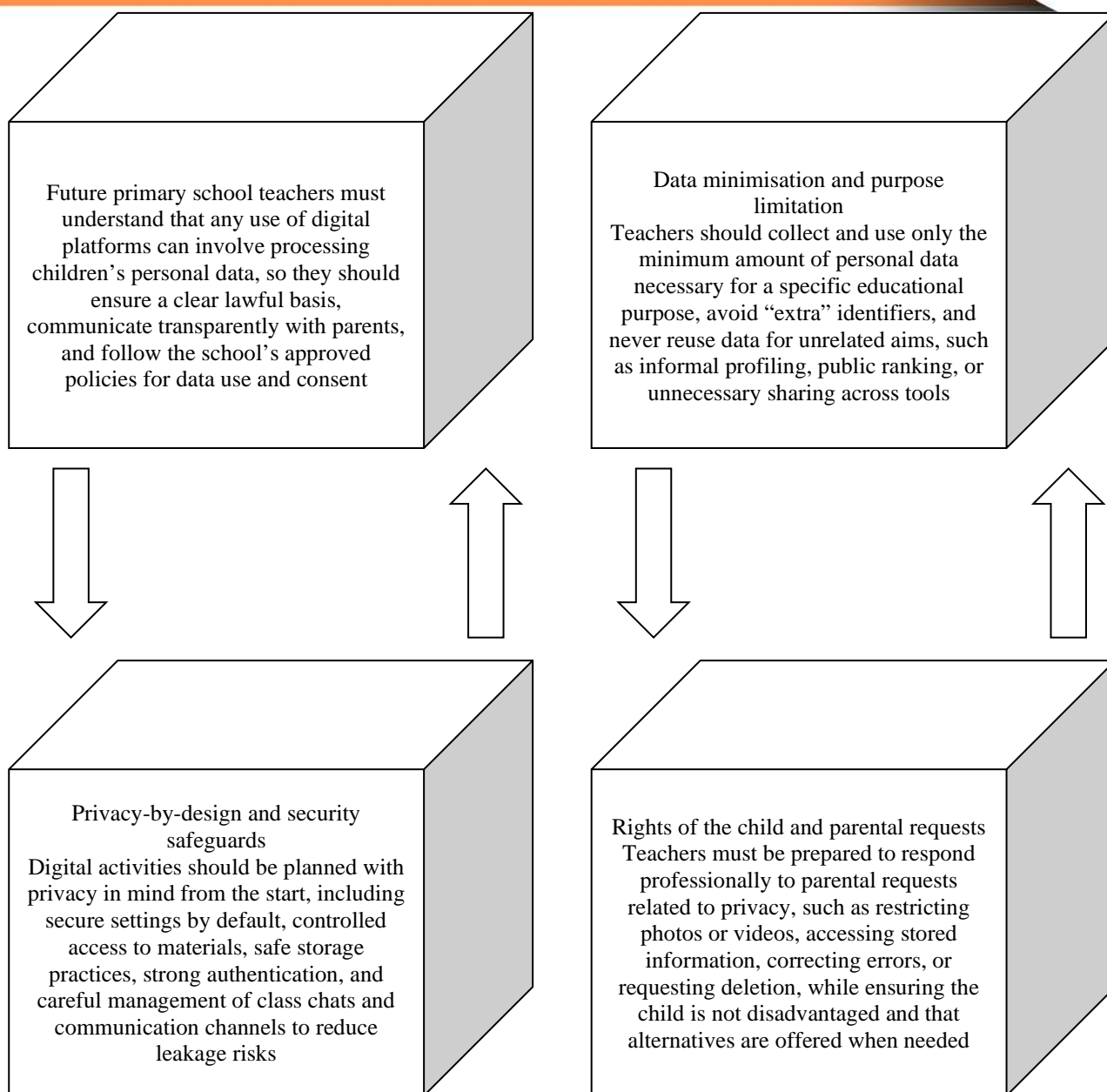
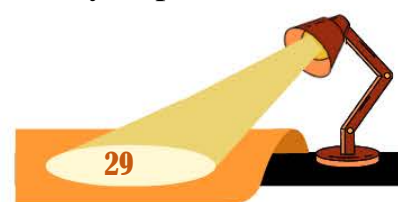


Fig.1. Legal foundations of digital literacy in the training of future primary school teachers

Formed by the author

Parental requests are a practical field where pedagogy, law and communication intersect, and this is where the professional maturity of the teacher is manifested. Parents can ask not to photograph their child, not to publish their work, to provide access to the collected data, to correct errors, to delete materials, to change the communication channel, to refuse a certain service, to explain the need for registration, or to offer an alternative if they do not trust the platform. The teacher must be ready to respond calmly and structured, to show what data is collected, for what purpose, who has access, how long it is stored, and what safeguards are in place. It is very important



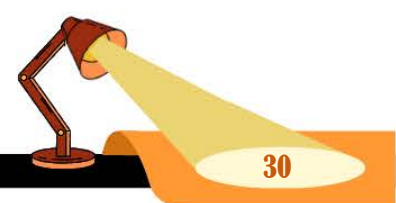


that the dialogue with parents does not turn into a struggle for control, but is built as a partnership, where the school explains the educational logic, and the family voices its limits and the risks it sees for the child. In cases of conflict, clear rules, written procedures, agreed forms of information, as well as a willingness to offer safe alternatives without discriminating against the student, are needed so that the child does not become a hostage to the adult dispute.

Conclusions. Therefore, digital literacy in the training of future primary school teachers is a key condition for a high-quality and safe educational process, as it combines the pedagogical expediency of using digital tools, responsible formation of children's safe behavior skills in the digital environment, as well as understanding the legal boundaries and requirements for personal data protection. At the same time, the real effectiveness of such training is manifested in the teacher's ability to professionally respond to parental requests, transparently explain the purpose and rules of working with data, choose tools with minimal risks, and build a partnership between school and family. It is the combination of methodological competence, legal literacy, and ethical position that makes the teacher ready for modern challenges and ensures a balance between innovative teaching and protection of the rights of the child.

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