

USE OF DIGITAL RESOURCES AS A CONDITION FOR IMPROVING THE TEACHING OF PSYCHOLOGICAL AND PEDAGOGICAL DISCIPLINES IN HIGHER EDUCATION INSTITUTIONS

Petrenko L.¹, Artiushyna M.², Kulalaieva N.², Trynus O.¹, Marshytska V.¹

¹Ivan Ziaziun Institute of Pedagogical Education and Adult Education of the National Academy of Educational Sciences of Ukraine, Kyiv, Ukraine

²Kyiv National Economic University named after Vadym Hetman, Kyiv, Ukraine

Abstract. The authors analyzed the impact of teachers' frequency of engagement with digital resources on improving the teaching of psychological and pedagogical disciplines in higher education institutions. The study assessed the level of teachers' engagement with digital resources, established a link between pedagogical experience and the frequency of using digital teaching tools, and substantiated optimization strategies based on a survey with a structured questionnaire. Most respondents actively use digital resources in teaching these disciplines, indicating high professional readiness for enhancing the educational process amid digitalization. A high level of active engagement with digital tools is characteristic of both young and experienced teachers, confirming positive dynamics in developing teaching staff's digital competence and readiness for further professional growth. Meanwhile, a small proportion of teachers with low usage levels stems from discipline-specific challenges, large student groups, or limited preparation for digital innovations, underscoring the need for systemic measures such as regular training, administrative support, and continuous professional development.

Keywords: lecturer, higher education institution, professional development, engagement with digital resources, student-centered learning, digital competence

Introduction. The gap between lecturers' level of digital competence and the quality of specialist training amid contemporary challenges represents one of the key issues in modern higher education [1–5]. Despite the widespread adoption of digital resources in higher education institutions in recent years (online platforms, interactive tools, assessment systems, virtual simulations, AI), the impact of lecturers' engagement with digital resources on improving the teaching of psychological and pedagogical disciplines remains insufficiently studied.

This necessitates addressing the research problem, which involves establishing a clear relationship between lecturers' engagement with digital resources and the effectiveness of enhancing the teaching of psychological and pedagogical disciplines in higher education institutions. The problem's relevance is underscored by the fact that digital tools serve as a powerful resource for fostering an active cognitive stance among students; however, their potential in university education is not fully realized, i.e., not applied systematically [6–7].

The purpose of this study is to analyze the impact of lecturers' engagement with digital resources in higher education institutions on improving the teaching of psychological and pedagogical disciplines.

Formulation of the problem. In line with the study's purpose, the following objectives were addressed: to assess the level of lecturers' engagement with digital resources; to establish the relationship between lecturers' pedagogical experience and the extent of using digital teaching tools in psychological and pedagogical disciplines; and to substantiate strategies for optimizing the use of digital tools in teaching these disciplines at higher education institutions.

Solving the problem. To assess lecturers' engagement with digital resources, responses to questionnaire items were analyzed using a 5-point Likert scale (Fig. 1).

It was found that 68.1% of respondents rated their use of digital resources in teaching at 5 points, and 27.5% at 4 points, totaling 95.6% high scores. Thus, 95.6% of lecturers demonstrate a high level of engagement with digital teaching tools, indicating significant interest and active application of digital tools in teaching psychological and pedagogical disciplines.

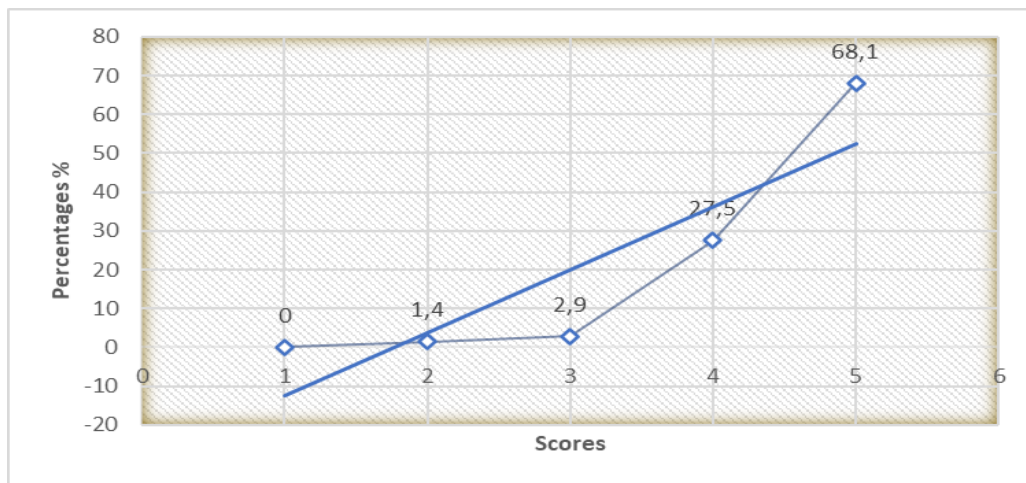


Fig. 1. Results of lecturers' self-assessment of their engagement level with digital resources in teaching psychological and pedagogical disciplines at higher education institutions

Addressing the second objective, a relationship was established between lecturers' pedagogical experience and the extent of using digital teaching tools in these disciplines. As shown in Fig. 2, the vast majority of respondents (82.6%) who actively use digital resources have over 10 years of experience, suggesting widespread adoption among experienced lecturers, not just young ones.

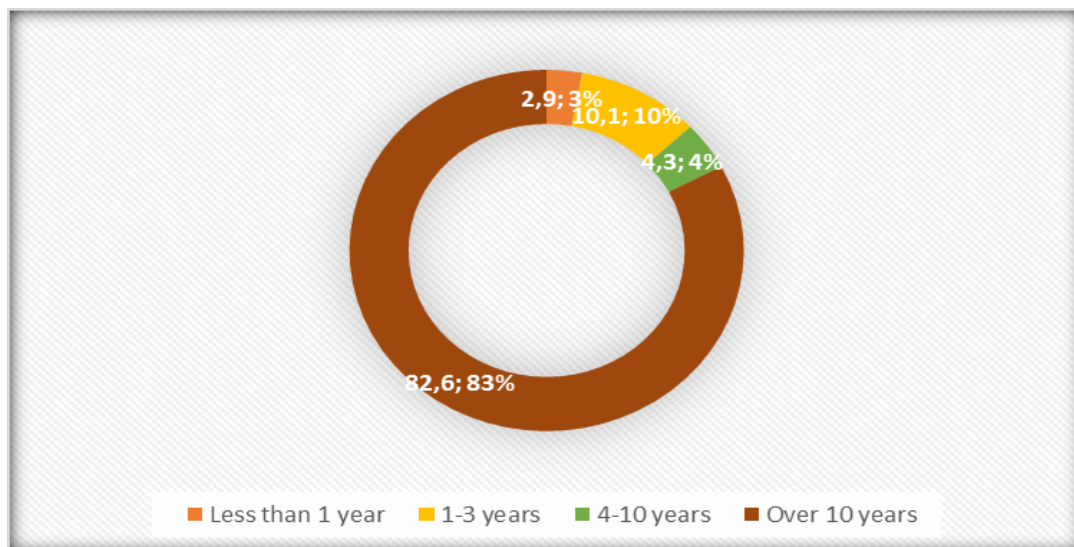


Fig. 2. Relationship between lecturers' pedagogical experience and the level of using digital teaching tools in teaching psychological and pedagogical disciplines

This confirms the positive trend toward adopting innovative, non-traditional teaching models. The implementation of distance and blended learning during the COVID-19 pandemic spurred widespread use of online platforms, enhancing lecturers' digital competence. The ongoing war in Ukraine against Russian aggression further expanded lecturers' practical experience with digital tools, ensuring educational continuity despite limited physical access to higher education institutions.

The relationship between lecturers' pedagogical experience and digital teaching tools usage was analyzed across three groups (1-3 years; 4-10 years; over 10 years). All groups showed 100% of responses at 4-5 points, confirmed by descriptive analysis and Pearson's correlation coefficient (Excel). These results indicate complete consistency between experience and engagement with digital teaching tools, regardless of lecturers' tenure.

Optimization strategies for digital resources were substantiated based on their high adoption rate (95.6%) despite minimal low ratings (4.3%). Digital tools proved most effective in practice-oriented learning (projects, case studies, debates, microgroup work). However, their use in student-centered (personalized) learning [8–10] and traditional formats requires methodological support, lecturer training, and administrative backing. Accordingly, systematic training on digital platforms, interactive, and research methods is recommended for departmental methodological work.

Conclusion. The analysis of lecturers' engagement with digital resources revealed that 95.6% of respondents actively use digital resources in teaching psychological and pedagogical disciplines, indicating a high level of professional readiness to enhance the educational process. A strong relationship was found between lecturers' pedagogical experience and their engagement with digital teaching tools, characteristic of both young lecturers and experienced ones with over 10 years of service, signaling positive dynamics in developing the teaching staff's digital competence. Meanwhile, the small proportion of lecturers with low usage (4.3%) stems from discipline-specific challenges, large student groups, or limited preparation for digital innovations, underscoring the need for systemic measures: instructional-methodological training, administrative support, and continuous professional development. Thus, lecturers' engagement with digital resources serves as an indicator of the academic community's professional openness to change and a foundation for further optimizing psychological and pedagogical training of future specialists within competence-based and student-centered approaches.

References

1. Yu Zhao, Ana María Pinto Llorente, María Cruz Sánchez Gómez, Digital competence in higher education research: A systematic literature review, *Computers & Education*, Volume 168, 2021, 104212, <https://doi.org/10.1016/j.compedu.2021.104212>
2. Fernández-Batanero, J. M., Román-Graván, P., Montenegro-Rueda, M., López-Meneses, E., & Fernández-Cerero, J. (2021). Digital Teaching Competence in Higher Education: A Systematic Review. *Education Sciences*, 11(11), 689. <https://doi.org/10.3390/educsci11110689>
3. Basilotta-Gómez-Pablos, V., Matarranz, M., Casado-Aranda, L.A. *et al.* Teachers' digital competencies in higher education: a systematic literature review. *Int J Educ Technol High Educ* **19**, 8 (2022). <https://doi.org/10.1186/s41239-021-00312-8>
4. Polly, D., Martin, F. & Guilbaud, T.C. Examining barriers and desired supports to increase faculty members' use of digital technologies: perspectives of faculty, staff and administrators. *J Comput High Educ* **33**, 135–156 (2021). <https://doi.org/10.1007/s12528-020-09259-7>
5. Sydorenko, V. V., Akhnovska, I. O., Smirnov, S., Verbovskyi, I., & Melnychuk, O. V. (2024). Improvement of higher education: how to bridge the digital divide during the transformation?. *Journal of Education and Learning (EduLearn)*, 18(3), 1001-1014 <https://doi.org/10.11591/edulearn.v18i3.21078>
6. Zhang, J., & Wu, Y. (2025). Impact of university teachers' digital teaching skills on teaching quality in higher education. *Cogent Education*, 12(1), 2436706. <https://doi.org/10.1080/2331186X.2024.2436706>
7. de Juana-Espinosa, S. A., Brotons, M., Sabater, V., & Stankevičiūtė, Ž. (2023). An analysis of best practices to enhance higher education teaching staff digital and multimedia skills. *Human systems management*, 42(2), 193-207, <https://doi.org/10.3233/HSM-220060>
8. Kerimbayev, N., Umirzakova, Z., Shadiev, R. *et al.* A student-centered approach using modern technologies in distance learning: a systematic review of the literature. *Smart Learn. Environ.* **10**, 61 (2023). <https://doi.org/10.1186/s40561-023-00280-8>
9. Mastrokourou, S., Kaliris, A., Donche, V., Chauliac, M., Karagiannopoulou, E., Christodoulides, P., & Longobardi, C. (2022, March). Rediscovering teaching in university: a scoping review of teacher effectiveness in higher education. *Frontiers in Education*, 7, 861458. Frontiers Media SA. <https://doi.org/10.3389/feduc.2022.861458>
10. Robertson, L., Porter, E., Smith, M. A., & Jacobs, S. (2021). Evidence-Based Course Modification to Support Learner-Centered and Student-Driven Teaching in a Pandemic: Leveraging Digital and Physical Space for Accessible, Equitable, and Motivating Experiential Learning and Scientific Inquiry in a First-Year Biology Course. *International Journal of Higher Education*, 10(7), 96-109. <https://doi.org/10.5430/ijhe.v10n7p96>