

Digitalization Tools Challenges for Students in Post-Pandemic Era

Aleksander Janeš

University of Primorska, Faculty of Management, Slovenia
aleksander.janes@fm-kp.si

Andreja Klančar

University of Primorska, Faculty of Education, Slovenia
andreja.klancar@pef.upr.si

Abstract. The COVID-19 pandemic forced universities to engage in an agile adaptation of pedagogical processes to a "new normal". But with diminishing pandemic circumstances another adaptation is needed. That is education being pushed in a new direction regarding digital technology and use of digital tools. In this paper, we present the findings on the basis of a preliminary survey conducted among students of the Faculty of Education, the field of study of early childhood education (ECE). The rationale of preliminary research is considering identification of factors that represent significant impact on use of digital tools in future pedagogical work in kindergartens.

In recent years, researchers have focused on investigating factors that influence preservice teachers' use of digital technologies in their classrooms. Findings indicate that preservice teachers' attitudes toward technology are important determinants of the success of future technology integration (Blackwell et. All, 2014; Yusop, 2015). The authors also point out that openness and positive attitudes towards digital technology use in education appear to be important dimensions of teachers digital competence (Dumford and Miller, 2018; Madsen et al., 2021; Sollid Madsen and Thorvaldsen, 2022; Štemberger & Čotar Konrad, 2021). Therefore, the survey goal was to identify most influential factors for future use of digital tools in pedagogical work.

The sample included 170 answered surveys, which were analysed descriptively and using statistical methods of t-test, correlation analysis and regression analysis.

Analysis findings pointed to variables of the frequency of computer use and the frequency of future use of digital tools. It seems that most influential factors in this context are digital competence and attitude versus digital tools.

The main findings show that the sample of students is a relatively young generation that, regardless of the frequency of computer and digital tools, uses and will use digital tools when working with children in preschool education.

The main contribution of the paper is in the identification of influential factors (Janeš and Novak, 2019) that outline the necessity of implementing digital tools in pedagogical work. The limitations of the research are mainly that only one measurement was performed on the population of all years of undergraduate study of pre-school education at the Faculty of Education. In the continuation of the research, it is necessary to perform further measurements and comparisons between years of study, as well as measurements and comparisons between study programs.

Keywords: digital competence, digital tools, knowledge management, professional attitude

References

Dumford, A. D., and A. L. Miller. 2018. "Online learning in higher education: Exploring advantages and disadvantages for engagement." *Journal of Computing in Higher Education* 30: 452–465. <https://doi.org/10.1007/s12528-018-9179-z>

Janeš, A. and R. Novak. 2019. "Process-oriented organizations: integration of soft factors." In IDEMUDIA, Efosa C. (Ed.). Handbook of research on social and organizational dynamics in the

- digital era. Hershey: IGI Global. <https://www.igi-global.com/book/handbook-research-social-organizational-dynamics/218547>, doi: 10.4018/978-1-5225-8933-4.ch016.
- Madsen, S. S., S. Thorvaldsen and S. Sollid. 2021. "Are teacher students' deep learning and critical thinking at risk of being limited in digital learning environments?" In M. J. Hernandez-Serrano (Ed.), *Teacher education in the 21st century – emerging skills for a changing world*. IntechOpen.
- Sollid Madsen, S., and S. Thorvaldsen. 2022. "Implications of the imposed and extensive use of online education in an early childhood education program." *Nordisk barnehageforskning* 19 (1): 1–20. <https://doi.org/10.23865/nbf.v19.258>
- Štemberger, T., and Čotar Konrad, S. (2021). Attitudes Towards using Digital Technologies in Education as an Important Factor in Developing Digital Competence: The Case of Slovenian Student Teachers. *International Journal of Emerging Technologies in Learning (iJET)*, 16(14), pp. 83–98. <https://doi.org/10.3991/ijet.v16i14.22649>.
- Yusop, F. D. (2015). A dataset of factors that influence preservice teachers' intentions to use Web 2.0 technologies in future teaching practices. *British Journal of Educational Technology*, 46(5), 1075-1080. <https://doi.org/10.1111/bjet.12330>.