

# ASSESSING THE EFFECTIVENESS OF DIGITAL LEARNING IN NURSING EDUCATION: A PILOT STUDY AMONG NURSING STUDENTS

## Background

Digital learning has rapidly gained recognition and popularity. It encompasses a wide range of learning technologies and approaches, including distance learning, online learning, and mobile learning [1]. While digital learning offers several advantages, it is important to understand that it is not inherently superior to traditional approaches and should be used with a solid understanding of learners' needs. Digital learning encompasses several types, including synchronous, asynchronous, blended, massive open online, and open schedule online courses.

## Aim

This study aimed to measure the digital learning experience among nursing students.

## Methods

A nonexperimental, quantitative-descriptive research design was used, employing the E-Learning Experience Evaluation Scale (3E scale) with a Cronbach  $\alpha$  of 0.93. A total of 155 nursing students from a Slovenian faculty of health sciences participated in the study. The age of the participants ranged from 19 to 36 years ( $M = 22.65$ ,  $SD = 3.433$ ). Data collection was conducted in June 2022 using an online questionnaire distributed via email using the open-source online survey application. The collected data were analyzed using IBM SPSS version 26.0. Due to the non-normal distribution of the data, non-parametric Mann-Whitney U test was performed. A  $p$  value  $\leq 0.05$  was considered statistically significant.

## Results

Results obtained using the 3E scale indicated a moderately high digital learning experience among nursing students ( $M = 3.436$ ,  $SD = 0.624$ ; 95% confidence interval [3.34, 3.54],  $p < 0.01$ ). Female students reported a more positive experience with digital learning ( $M = 3.42$ ,  $SD = 0.672$ ) compared to male students ( $M = 2.72$ ,  $SD = 0.617$ ), with statistically significant differences ( $p < 0.05$ ) between the two groups. In addition, significant differences ( $p < 0.05$ ) were observed in subscale 1 - Effectiveness of learning and subscale 3 - Delivery and support, where female students rated their digital learning experience higher ( $M = 3.19$ ,  $SD = 0.891$  and  $M = 3.52$ ;  $SD = 0.675$ , respectively) than male students. No statistically significant differences were observed between groups for subscale 2 - Teacher's role and subscale 4 - Perceived barriers.

## Discussion

It is important to recognize that digital learning is a multifaceted phenomenon influenced by a variety of factors, and that its effectiveness depends on the interplay of these factors [2]. These findings will facilitate the development of effective strategies and interventions to optimize the digital learning experience of nursing students and ultimately improve nursing education.

## Implications and future perspectives

While digital platforms provide valuable opportunities for teaching and learning, further research is needed to gain a deeper understanding of the motivational drivers and factors that contribute to successful engagement and outcomes in digital learning environments.

## References

1. Haleem A, Javaid M, Qadri MA, Suman R. Understanding the role of digital technologies in education: A review. *Sustain Oper Comput*, 3:275–85, 2022.
2. Loureiro F, Sousa L, Antunes V. Use of Digital Educational Technologies among Nursing Students and Teachers: An Exploratory Study. *J Pers Med*, 11:1010, 2021.