ABSTRACT

This thesis focuses on analyzing the use of digital technologies in teaching natural history at the lower secondary school level. The primary goal was to determine how digital technologies influence žák engagement, teaching efficiency, and the development of teachers' digital competencies. The theoretical part explores the importance of digital technologies in education, the structure of digital competencies according to national curriculum frameworks, and an overview of commonly used digital tools. The practical part employs a quantitative methodology based on a survey conducted among 48 natural history teachers.

The study results showed that regular use of digital tools, such as interactive whiteboards and e-learning platforms, significantly increases žák engagement and enhances understanding of complex scientific concepts. Furthermore, it was proven that the level of teachers' digital competencies significantly affects their ability to integrate new technologies into teaching. The analysis also revealed that schools with better technological infrastructure achieve a higher level of digital technology integration into education.

Based on the findings, the thesis recommends systematic support for teachers' professional development, improvement of technological infrastructure, and expanded use of digital tools in the curriculum. These measures can contribute to more effective and innovative natural history teaching, better preparing žáks for a digital future.

KEYWORDS

digital technologies, natural history, digital competencies, interactive teaching, e-learning platforms, technological infrastructure, primary schools, digital literacy, lower secondary school