

Digital dictionary as innovative tool for training management specialists

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Abstract. *In the context of digitalization, professional terminology is developing rapidly, which requires flexible educational tools. The study is aimed at assessing the effectiveness of digital dictionaries in training future specialists in the field of management. A theoretical analysis was conducted, existing digital resources were studied, and an experiment with students was conducted. The results confirmed the usefulness of digital dictionaries for the formation of terminological competence.*

Keywords: *digital dictionary, professional vocabulary, management training, digitalization of education.*

In today's digital era, language and terminology are evolving rapidly, particularly in professional fields such as management and marketing. This shift underscores the need for flexible, up-to-date educational resources. Conventional printed dictionaries and obsolete glossaries often fail to keep pace with the dynamic development of professional vocabulary. At the same time, studies increasingly emphasize the importance of digital tools in helping students acquire both language proficiency and specialized terminology within professional training programs. The aim of this research is to evaluate the effectiveness of digital dictionaries as modern learning instruments in the training of future management professionals. It also seeks to examine how such tools influence the formation of students' terminological competence. The study's objectives include analyzing current trends in the digitalization of education, identifying the specific needs of management students, defining the educational functions of a digital dictionary, developing a model for its integration into academic programs, and assessing its practical use through a case study

involving students in economics-related fields. A three-stage research design was implemented. The first phase involved a theoretical review of academic literature on digital education, terminological training, and educational technologies in the field of management. In the second phase, content analysis was performed on existing digital dictionaries, apps, and online platforms, focusing on their usability, features, and relevance to professional education. The third phase included a student survey to assess their usage experience, satisfaction levels, and expectations regarding digital dictionaries. A pedagogical experiment was also conducted: one group of students used a specially designed digital dictionary during a semester, while a control group followed traditional instruction. Collected data were analyzed statistically, with attention to comparative metrics and visualization of the survey outcomes.

At the first stage, a systematization of scientific sources devoted to the issues of digitalization of education, development of professional terminological competence and application of digital technologies in training of specialists in the field of management was carried out. The results of the analysis confirmed the relevance of the problem: the rapid pace of updating professional vocabulary and terminology requires educational institutions to have a flexible and technologically equipped approach to teaching (Laurell et al., 2019; Parkhomenko, 2023) [3-4]. According to modern research, the integration of digital educational resources contributes not only to more effective acquisition of professional vocabulary, but also to the development of key digital competencies of students, which meets the requirements of the modern economy (Bond et al., 2020; Haleem et al., 2022; Salas-Pilco et al., 2022) [1-2;5]. The conclusion of this stage was the need to introduce interactive digital dictionaries adapted to the needs of students in management fields as a means of increasing the effectiveness of terminological training.

During the second stage, a content analysis of 11 popular digital dictionaries and platforms was conducted, including both general-language resources (Oxford English Dictionary Online, Cambridge Dictionary) and specialized sources on economics and management (Investopedia, BusinessDictionary, Glossary of Management Terms). The analysis was conducted according to the following criteria: availability of relevant professional terminology; user-friendly interface; availability of multimedia and interactive components; adaptation to various digital devices; ability to personalize and track learning progress. The analysis results showed that only 40% of the studied resources have sufficient depth of content relevant to educational programs in management. Only a third of the platforms provide interactive tasks to consolidate terminology. Less than 20% of dictionaries have a personalization function, which limits their pedagogical

value. These data confirmed the need to create a specialized digital dictionary that combines professionally oriented content and modern learning technologies.

At the third stage, a sociological study and a pedagogical experiment were organized. The study involved 42 students majoring in economics and management. 24 students formed an experimental group using the developed digital dictionary, and 18 students were included in the control group, which was taught using the traditional method using printed materials. The survey of students showed the following: 68% of respondents had previously used digital dictionaries, mainly of a general lexical profile; only 24% had experience working with professional terminology platforms; 81% of students expressed interest in using a specialized digital dictionary on management; the most popular functions were clear definitions of terms (92%), examples of professional use (78%), interactive tasks (65%), multimedia elements (59%). The pedagogical experiment lasted one semester. Students in the experimental group actively used the digital dictionary containing more than 500 terms. A comparative analysis of the entrance and final testing demonstrated a significant increase in the level of terminological competence of students in the experimental group: the average score on the final testing in the experimental group was 83% (an increase of 29% compared to the initial level), while in the control group it was 64% (an increase of 11%); self-assessment of terminological competence on a five-point scale increased from 2.7 to 4.3 among students in the experimental group and from 2.8 to 3.4 in the control group; motivation to study professional terminology increased from 62% to 85% among the experimental group and from 63% to 70% among the control group; the level of development of digital skills (according to students' self-assessment) increased from 3.0 to 4.5 points in the experimental group, which significantly exceeds a similar increase in the control group (from 3.1 to 3.7). Statistical processing of data using the Student t-test showed that the differences between the groups are statistically significant ($p < 0.01$), which confirms the effectiveness of introducing a digital dictionary into the educational process. In addition to quantitative data, qualitative changes were recorded: students noted an increased interest in studying professional terminology; the amount of independent work increased; there was an improvement in understanding of terms due to visualization and interactivity; teachers noted more active participation of students in practical classes and discussions.

The results of the study confirmed that specialized digital dictionaries are an effective tool for developing terminological competence in students majoring in management. The use of a digital dictionary contributes not only to a deeper understanding of professional vocabulary, but also to the development of digital skills, which meets modern requirements for professional training. However, certain

limitations should be noted: the sample was limited by the number of universities, and the long-term effects of using a digital dictionary were not studied. In the future, it is planned to expand the sample, study the interdisciplinary potential of digital dictionaries, and integrate such resources with other digital platforms to improve the effectiveness of professional training.

This study adds to the growing body of research on the role of digital educational resources in vocational training. Nonetheless, certain limitations should be noted: the sample was limited to students from specific institutions, and the study did not measure long-term effects. Future investigations are encouraged to explore how digital dictionaries can be combined with other digital platforms and to assess their value in interdisciplinary learning and ongoing professional development.

Acknowledgement: This paper was supported by the project No.09I03-03-V01-000145 funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia and by the project No. 044UK-4/2024 within the Cultural and Educational Grant Agency of the Ministry of Education, Research, Development and Youth of the Slovak Republic (KEGA).

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