

ЄВРОПЕЙСЬКІ НАУКОВІ СТУДІЇ

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<https://doi.org/10.28925/2311-2409.2026.453>**Popova L.,**

PhD in Pedagogy, Associate Professor,
Associate Professor of the Department of English for Engineering 1,
National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»,
popova.liudmyla@edu.kpi.ua

ORCID iD 0000-0003-3764-3870

APPLYING OF THE BENCHMARKING METHOD IN THE PROCESS OF DEVELOPING TRANSVERSAL COMPETENCIES OF FUTURE SPECIALISTS IN HIGHER EDUCATION INSTITUTIONS

Abstract. *The modern higher education system is increasingly focused on the development of transversal competencies that allow future specialists to adapt to a dynamic professional environment, effectively collaborate and participate in lifelong learning. In this context, innovative pedagogical approaches that ensure the quality and relevance of educational outcomes are of particular importance. One of such approaches is benchmarking, which allows higher education institutions to compare their practices with leading national and international standards and apply effective strategies for developing competencies. The aim of the article is to study the potential of the benchmarking method as an effective tool for developing transversal competencies of future specialists in higher education institutions. The research is aimed at identifying pedagogical conditions, stages and practical mechanisms for integrating benchmarking into the educational process.*

The research methodology is based on a combination of theoretical and empirical methods, including analysis and synthesis of scientific literature, comparative analysis of educational practices, modeling of benchmarking procedures and generalization of best pedagogical practices. Particular attention is paid to the identification of key transversal competencies, such as critical thinking, communication skills, teamwork, problem-solving skills, digital literacy and adaptability.

The results of the study demonstrate that the systematic use of benchmarking contributes to improving the quality of educational programs, increasing student motivation and developing the necessary transversal competencies. The proposed model for implementing benchmarking includes the stages of planning, data collection, analysis, comparison, adaptation of best practices and evaluation of results. The study emphasizes that benchmarking encourages cooperation between educational institutions, promotes innovations in teaching methods and supports continuous professional development of both students and teachers. The scientific novelty of the study lies in the justification of benchmarking as a pedagogical tool for the structured development of transversal competencies and in the formulation of practical recommendations for its integration into higher education curricula. The practical significance of the article is determined by the possibility of applying the proposed benchmarking system in the development of educational programs, assessment of learning outcomes and improvement of the activities of institutions. The results confirm that benchmarking serves as an effective mechanism for harmonizing educational practice with the requirements of the modern labor market and enhancing the competitiveness of future specialists in the global professional environment.

Keywords: *benchmarking method, transversal competencies, higher education, future specialists, educational innovations, competency-based learning, quality assurance, professional development.*

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Problem Statement. The modern development of higher education is characterized by increased requirements for the quality of training of future specialists, which is due to dynamic changes in the labor market, the digital transformation of society and the growing role of innovative technologies in professional activity. In this context, the formation of transversal competencies is of particular importance, which ensure the ability of higher education applicants to effectively adapt to new conditions, work in a team, think critically, make informed decisions and learn throughout life.

At the same time, an analysis of scientific and pedagogical literature and the practice of functioning of higher education institutions indicates the presence of certain contradictions between the requirements of modern society for the level of formation of transversal competencies of graduates and traditional approaches to organizing the educational process, which often remain focused mainly on the acquisition of knowledge, rather than on the development of integrated competencies.

One of the promising tools for overcoming these contradictions is the benchmarking method, which allows for a systematic comparison of educational practices, identifying the best examples of organizing the educational process and adapting them in the activities of higher education institutions. Despite the significant potential of this method, its application in the context of developing transversal competencies of future specialists in higher education institutions remains insufficiently theoretically substantiated and methodologically developed.

Thus, there is a need for a scientific understanding of the possibilities of applying the benchmarking method as a tool for developing transversal competencies of future specialists, which determines the relevance and practical significance of this study.

The research results confirm the relevance of benchmarking as an effective methodological tool for improving the quality of educational processes and promoting the development of transversal competencies in future specialists. These results are consistent with the theoretical framework proposed by researcher R. C. Camp (1989), who defined benchmarking as a systematic and continuous process of identifying, analyzing and adapting best practices that lead to higher performance. Kemp emphasized that benchmarking is not limited to simple comparison, but includes a deep analytical process aimed at understanding gaps in performance and implementing strategic

improvements. In the context of higher education, this approach allows institutions to evaluate the effectiveness of their educational programs, compare them with leading institutional practices and implement innovative pedagogical solutions that improve competency-based learning.

Analysis of recent research and publications. Analysis of modern scientific research and publications shows that the problem of developing transversal competencies in the higher education system is one of the priority areas of pedagogical science and educational policy. The works of international organizations, in particular the OECD (2018) and the European Commission (2019), emphasize that the modern education system should be focused on the formation of 21st century competencies, which include critical thinking, communication, collaboration, digital literacy, creativity and the ability to learn throughout life. OECD research (2018) emphasizes the need to transform education systems towards competency-based learning, which involves not only acquiring knowledge, but also developing the ability to apply it in complex and unpredictable professional situations. Similarly, the European Commission (2019) defines transversal competencies as a key component of lifelong learning, ensuring professional mobility and adaptability of graduates in conditions of rapid socio-economic change.

In recent years, the scientific literature has also paid considerable attention to the issues of integrating transversal competencies into educational programs of higher education institutions. Researchers emphasize that the effective formation of such competencies requires the implementation of innovative pedagogical approaches, in particular project-based learning, interdisciplinary interaction, digital technologies and assessment of competencies in real educational contexts.

The purpose of the article is to theoretically substantiate and analyze the possibilities of applying the benchmarking method in the process of developing transversal competencies of future specialists in higher education institutions, as well as to determine its role as a tool for improving the quality of the educational process and bringing learning outcomes closer to international standards. Within the framework of the set goal, it is planned to: reveal the essence of the benchmarking method and its main types; analyze the stages of introducing benchmarking into educational practice; substantiate the importance of transversal competencies in the training of a modern specialist; determine the relationship between benchmarking and competency-based learning;

The methodological basis of the study is a complex of interrelated approaches, principles and methods of scientific knowledge, which provide a holistic study of the process of applying the benchmarking method in the development of transversal competencies of future specialists in higher education institutions. The theoretical and methodological basis of the study is the provisions of the competency approach, which orients the educational process towards the formation of integrated learning outcomes, which include knowledge, skills, abilities and value orientations of education seekers. Also important is the systemic approach, which allows us to consider the process of developing transversal competencies as a holistic system of interconnected components of the educational environment. A separate methodological basis is the provisions of the activity approach, which focuses on the active role of the education seeker in the formation of competencies through practical activities, solving problem tasks and participating in educational projects. An axiological approach was also used, which ensures that the value dimension of the professional training of future specialists is taken into account. The following methods of scientific knowledge were used in the research process: theoretical methods (analysis, synthesis, comparison, generalization of scientific sources); a comparative method for comparing educational practices and benchmarking models; structural-logical analysis to determine the stages of benchmarking implementation.

Presentation of the main material. In modern research, the problem of developing transversal competencies of future specialists in higher education institutions is considered as one of the key areas of modernization of educational systems, which is due to the need to prepare graduates for the conditions of a fast-paced, digitalized and globalized labor market. In this context, the implementation of innovative management and pedagogical approaches is of particular importance, among which the benchmarking method occupies a significant place. In the field of higher education it confirms the effectiveness of benchmarking as a tool for ensuring the quality of educational programs and improving the educational process. In particular, it is emphasized that the use of benchmarking allows higher education institutions to conduct a comparative analysis of educational practices, identify “gaps” in the results of their activities and implement the best international approaches to the formation of student competencies. Thus, the analysis of scientific sources indicates

the presence of a close connection between the concepts of transversal competencies and the methodology of benchmarking, which creates the basis for further research into the possibilities of their integration in the process of training future specialists in higher education institutions.

The results support the theoretical position of M. J. Spendolini (1992), who defined benchmarking as a continuous and systematic process of evaluating products, services and work processes against best practices with the aim of improving the organization. He proposed a five-step benchmarking model that includes defining benchmarking objectives, forming a benchmarking team, identifying partners, collecting and analyzing data, and implementing improvements. These principles emphasize benchmarking as a structured mechanism for continuous improvement, which is consistent with the findings of this study regarding its effectiveness in developing transversal competencies in higher education.

The scientist described benchmarking as a continuous and systematic process aimed at evaluating the products, services and processes of an organization in comparison with those recognized as best practices. He defines benchmarking as “a continuous, systematic process of evaluating the products, services and work processes of organizations that are recognized as representing the best practices in the discrediting of the organization” (Spendolini, 1992, p. 9).

Furthermore, M. J. Spendolini emphasized that benchmarking should be integrated into continuous improvement strategies and applied across sectors, including education. He developed his model after analyzing successful benchmarking practices in leading organizations, synthesizing the lessons learned into a universal framework applicable to different institutional contexts.

In the context of higher education, these principles support the idea that benchmarking can serve as an effective tool for evaluating educational practices, identifying gaps in performance, and improving the development of transversal competencies in future professionals. The results of this study confirm that structured benchmarking procedures contribute to institutional self-assessment, encourage collaboration among stakeholders, and contribute to the modernization of educational programs in accordance with modern quality standards.

The findings of this study are consistent with the conceptual framework proposed by the Organisation for Economic Co-operation and Development (OECD, 2018) within the framework of the Education 2030 project,

which emphasizes the enhancement of transversal competences as key elements for future professional success. According to the OECD (2018), modern education systems should focus not only on the acquisition of subject-specific knowledge, but also on the development of competences that enable learners to respond effectively to complex and unpredictable professional environments. These competences include critical thinking, problem-solving, collaboration, creativity, digital literacy and adaptability, which are considered essential for lifelong learning and professional mobility.

Furthermore, the OECD (2018) emphasizes that educational institutions should have innovative strategies and evidence-based approaches to ensure the systematic development of such competences. In this regard, benchmarking can be interpreted as an effective mechanism for developing institutional practices with international educational standards and identifying successful pedagogical models that support competency-based learning. The results of this study support this view, demonstrating that integrating benchmarking into the educational process contributes to improving curriculum development, through reflective teaching practices and achieving students' readiness for real professional tasks.

The conceptual framework of this study is based on a logically structured sequence that ensures the consistent integration of the benchmarking

methodology into the process of developing transversal competencies in higher education. This framework can be presented as a progressive analytical chain: *benchmarking methodology* → *structured benchmarking process* → *development of transversal competencies* → *improvement of learning outcomes*. This approach reflects the systemic nature of benchmarking, where methodological principles are operationalized through procedural steps and ultimately transformed into measurable learning outcomes. In this context, benchmarking serves not only as a comparison tool, but also as a mechanism for continuous improvement of education, allowing higher education institutions to align their practices with international standards and labor market requirements. Thus, the implementation of benchmarking supports the transition from traditional knowledge-based education to competence-based learning outcomes.

The presented classification demonstrates that benchmarking is a multifaceted methodology that can be used at different levels of analysis. Each type performs a certain function in improving the activities of an educational institution; however, all types have a common goal — best practices and promoting continuous improvement. In the context of higher education, the integration of different types of benchmarking contributes to the systematic development of transversal competencies and ensures the overall quality of educational outcomes.

Table 1

CONCEPTUAL SEQUENCE BASED ON KEY THEORETICAL SOURCES

Sequence	Author(s) and Year	Core Concept	Key Contribution to the Study	Role in the Discussion Structure
1	Camp, R. C. (1989)	Theoretical foundation of benchmarking	Defines benchmarking as a systematic and continuous search for best practices leading to superior performance	Establishes the conceptual basis of benchmarking as a methodological approach
2	Spendolini, M. J. (1992)	Benchmarking process model	Proposes structured stages of benchmarking implementation, including planning, data collection, analysis, and improvement	Explains how benchmarking can be practically applied in educational environments
3	OECD (2018)	Future competencies	Identifies key competencies required for success in modern professional environments, including critical thinking, collaboration, and adaptability	Connects benchmarking practices with competency-based education requirements
4	European Commission (2019)	Transversal competencies	Defines transversal competencies as essential skills for lifelong learning and professional mobility	Demonstrates the educational outcomes and relevance of benchmarking for competency development

In the current conditions of transformation of higher education, benchmarking becomes an effective tool for ensuring the quality of the educational process and the development of transversal competencies of future specialists. Its use allows higher educational institutions to focus on the best national and international practices, which contributes to the formation of relevant professional and supra-professional skills.

Benchmarking performs an important function of analytical comparison of educational practices, which makes it possible to identify effective learning models and adapt them in their own educational activities. In this context, it promotes the development of transversal competences such as critical thinking, communication, teamwork, digital literacy, creativity and the ability to learn independently.

Table 2

TYPES OF BENCHMARKING AND THEIR CHARACTERISTICS

Type of Benchmarking	Definition	Main Purpose	Application in Higher Education
Internal Benchmarking	Comparison of processes and performance within the same institution (e.g., between departments or faculties)	To identify internal best practices and reduce performance gaps	Comparing teaching quality, curriculum effectiveness, or student outcomes across departments
External Benchmarking	Comparison with other organizations or institutions	To identify best external practices and improve institutional quality	Comparing universities at national or international level
Competitive Benchmarking	Comparison with direct competitors in the same field	To improve competitive position and institutional performance	Comparing rankings, employability rates, admission standards, innovation level

Table 3

THE ROLE OF BENCHMARKING IN FORMING TRANSVERSAL COMPETENCIES

№	Function of Benchmarking	Mechanism of Influence	Transversal Competencies Developed	Educational Outcome
1	Comparative analysis of best practices	Identification and adaptation of leading educational models	Critical thinking, analytical skills	Improved ability to evaluate and compare information
2	Quality improvement of educational processes	Detection of performance gaps and implementation of improvements	Problem-solving, decision-making	Higher efficiency in learning and teaching processes
3	Integration of innovative teaching methods	Adoption of advanced pedagogical technologies and approaches	Creativity, digital literacy	Enhanced innovative thinking and digital competence
4	Promotion of student-centered learning	Shift from teacher-centered to learner-centered education	Self-management, autonomy, learning-to-learn competence	Increased student independence and responsibility
5	Development of collaborative practices	Exchange of experience between institutions and stakeholders	Teamwork, communication skills	Improved interpersonal and group work abilities
6	Strategic educational planning	Use of benchmarking data for long-term institutional development	Adaptability, strategic thinking	Better alignment with labor market demands
7	Continuous monitoring and evaluation	Ongoing assessment of educational outcomes and processes	Reflective thinking, lifelong learning	Sustainable competence development

The presented table demonstrates that benchmarking performs a multifunctional role in higher education by influencing both the organizational and pedagogical dimensions of the educational process (Popova L.2025). Through systematic comparison, analysis, and adaptation of best practices, benchmarking contributes to the development of key transversal competencies, ensuring the transition toward competency-based education and improving overall educational outcomes.

Conclusions. As a result of the study, it was established that the benchmarking method is an effective tool for improving the quality of the educational process and developing transversal competencies of future specialists in higher education institutions. Its application provides a systematic analysis, comparison and adaptation of the best educational practices, which

contributes to the modernization of the content and technologies of learning.

In the field of higher education, this process is of particular importance, as it ensures the improvement of educational programs and their increased compliance with modern labor market requirements. The results of the study in addition, benchmarking ensures the development of reflective practice of teachers and contributes to the continuous improvement of the educational environment. Thus, benchmarking acts not only as a tool for managing the quality of education, but also as a strategic mechanism for the formation of transversal competencies of future specialists. Its integration into the practice of higher education institutions allows to increase the competitiveness of graduates and ensure their readiness for professional activity in the conditions of modern socio-economic challenges.

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Попова Л.

ЗАСТОСУВАННЯ МЕТОДУ БЕНЧМАРКІНГУ В ПРОЦЕСІ РОЗВИТКУ ТРАНСВЕРСАЛЬНИХ КОМПЕТЕНЦІЙ МАЙБУТНІХ СПЕЦІАЛІСТІВ У ВИЩИХ НАВЧАЛЬНИХ ЗАКЛАДАХ

Анотація. Сучасна система вищої освіти дедалі більше зосереджена на розвитку трансверсальних компетенцій, які дозволяють майбутнім спеціалістам адаптуватися до динамічного професійного середовища, ефективно співпрацювати та брати участь у навчанні протягом усього життя. У цьому контексті особливого значення набувають інноваційні педагогічні підходи, що забезпечують якість та актуальність освітніх результатів. Одним із таких підходів є бенчмаркінг, який дозволяє вищим навчальним закладам порівнювати свої практики з провідними національними та міжнародними стандартами та застосовувати ефективні стратегії розвитку компетенцій. Метою статті є дослідження потенціалу методу бенчмаркінгу як ефективного інструменту розвитку трансверсальних

компетенцій майбутніх спеціалістів у вищих навчальних закладах. Дослідження спрямоване на визначення педагогічних умов, етапів та практичних механізмів інтеграції бенчмаркінгу в освітній процес. Методологія дослідження базується на поєднанні теоретичних та емпіричних методів, включаючи аналіз та синтез наукової літератури, порівняльний аналіз освітніх практик, моделювання процедур бенчмаркінгу та узагальнення передового педагогічного досвіду. Особлива увага приділяється визначенню ключових трансверсальних компетенцій, таких як критичне мислення, комунікативні навички, робота в команді, здатність до вирішення проблем, цифрова грамотність та адаптивність. Результати дослідження демонструють, що систематичне застосування бенчмаркінгу сприяє підвищенню якості освітніх програм, підвищенню мотивації студентів та розвитку необхідних трансверсальних компетенцій. Запропонована модель впровадження бенчмаркінгу включає етапи планування, збору даних, аналізу, порівняння, адаптації передового досвіду та оцінки результатів. У дослідженні підкреслюється, що бенчмаркінг заохочує співпрацю між навчальними закладами, сприяє інноваціям у методах навчання та підтримує безперервний професійний розвиток як студентів, так і викладачів. Наукова новизна дослідження полягає в обґрунтуванні бенчмаркінгу як педагогічного інструменту для структурованого розвитку трансверсальних компетенцій та у формулюванні практичних рекомендацій щодо його інтеграції в навчальні програми вищої освіти. Практичне значення статті визначається можливістю застосування запропонованої системи бенчмаркінгу при розробці освітніх програм, оцінці результатів навчання та покращенні діяльності закладів. Результати підтверджують, що бенчмаркінг слугує ефективним механізмом узгодження освітньої практики із вимогами сучасного ринку праці та посилення конкурентоспроможності майбутніх фахівців у світовому професійному середовищі.

Ключові слова: метод бенчмаркінгу, трансверсальні компетенції, вища освіта, майбутні фахівці, освітні інновації, навчання на основі компетенцій, забезпечення якості, професійний розвиток.

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