

INNOVATIVE PEDAGOGICAL TECHNOLOGIES OF STUDENT-CENTERED LEARNING IN MODERN INSTITUTIONS OF HIGHER EDUCATION: “TEACHING”, “COACHING” OR “TUTORING”?

ІНОВАЦІЙНІ ПЕДАГОГІЧНІ ТЕХНОЛОГІЇ СТУДЕНТОЦЕНТРИЧНОГО НАВЧАННЯ У СУЧАСНИХ ЗАКЛАДАХ ВИЩОЇ ОСВІТИ: «ТІЧІНГ», «КОУЧІНГ» ЧИ «Т'ЮТОРІНГ»?

This article sets the stage for a deeper exploration into the individual roles of teaching, coaching, and tutoring, as well as the technologies and strategies that facilitate student-centered learning. It provides a comprehensive overview of the current trends and challenges in higher education, offering a foundation for further discussion and analysis. The rapid technological advancements of the 21st century have revolutionized educational practices, prompting a re-evaluation of pedagogical approaches in higher education. Traditional lecture-based instruction, which centers on the transmission of knowledge from teacher to student, is increasingly being supplemented or replaced by student-centered learning models. These models emphasize active learning, critical thinking, and problem-solving skills, aligning with the diverse needs and interests of contemporary learners. This shift necessitates a critical examination of the roles of teaching, coaching, and tutoring, which are pivotal in facilitating student-centered education.

In the evolving landscape of higher education, there is a profound shift towards student-centered learning paradigms that prioritize the needs, preferences, and capabilities of students over traditional, instructor-led methodologies. This transition is fueled by the advent of innovative pedagogical technologies that reshape the dynamics of teaching, coaching, and tutoring. This article explores these three fundamental roles within student-centered learning contexts, examining how each contributes uniquely to enhancing educational outcomes. By evaluating various technological advancements and pedagogical strategies, the paper delineates the interplay between teaching, coaching, and tutoring, emphasizing their distinct and complementary functions. The central thesis posits that these roles are not mutually exclusive but rather form a cohesive framework that supports a holistic educational experience, facilitating comprehensive learning, personal growth, and academic excellence.

Key words: *teaching, coaching, tutoring, higher education, student-centered learning, fundamental aspect, advantages of student-centered learning, innovative pedagogical technologies.*

Ця стаття закладає основу для глибокого вивчення окремих ролей викладання, коучингу та тьюторінгу, а також технологій і стратегій, які сприяють навчанню, орієнтованому на студента. Він містить комплексний огляд сучасних тенденцій і викликів у вищій освіті, пропонуючи основу для подальшого обговорення та аналізу. Стрімкий технологічний прогрес 21 століття революціонував освітню практику, спонукаючи до переоцінки педагогічних підходів у вищій освіті. Традиційне лекційне навчання, яке зосереджується на передачі знань від викладача до студента, все частіше доповнюється або замінюється моделями навчання, орієнтованими на студента. Ці моделі наголошують на активному навчанні, критичному мисленні та навичках вирішення проблем, узгоджуючи їх із різноманітними потребами та інтересами сучасних учнів. Ця зміна потребує критичного аналізу ролей викладання, коучингу та репетиторства, які є ключовими у сприянні студенто-орієнтованій освіті.

У мінливому середовищі вищої освіти відбувається глибокий зсув до парадигм навчання, орієнтованих на студента, які надають перевагу потребам, уподобанням і можливостям студентів над традиційними методологіями, керованими викладачем. Цей перехід підживлюється появою інноваційних педагогічних технологій, які змінюють динаміку викладання, наставництва та репетиторства. У цій статті розглядаються ці три фундаментальні ролі в контексті навчання, орієнтованого на студента, досліджуючи, як кожна з них унікально сприяє покращенню освітніх результатів. Оцінюючи різноманітні технологічні досягнення та педагогічні стратегії, стаття окреслює взаємодію між викладанням, коучингом і тьюторінгом, наголошуючи на їхніх відмінних і взаємодоповнюючих функціях. Центральна теза стверджує, що ці ролі не є взаємовиключними, а скоріше утворюють цілісну структуру, яка підтримує цілісний освітній досвід, сприяючи всебічному навчанню, особистісному зростанню та академічній досконалості. В цій статті міститься огляд ключових питань теми, підкреслюючи важливість інтеграції інноваційних технологій для створення ефективного навчального середовища в сучасних закладах вищої освіти.

Ключові слова: *викладання, коучинг, тьюторство, вища освіта, студентоцентроване навчання, фундаментальний аспект, переваги студентоцентрованого навчання, інноваційні педагогічні технології.*

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General statement of the problem and its connection with important scientific or practical The combination of teaching, coaching, and tutoring, supported by advanced technologies, offers a promising path towards a more personalized, engaging, and effective educational experience. provides an overview of the article's key

themes, highlighting the importance of integrating innovative technologies to create effective learning environments in modern higher education institutions. As institutions continue to adopt and refine these methodologies, the focus on student-centered learning will undoubtedly play a pivotal role in shaping the future of higher education.

Analysis of recent research and publications. The analysis of the current state of research of student-centric education in modern institutions of higher education showed their great practical interest in the study of this topic in Ukrainian and foreign scientific groups and a set of provisions has already been developed and approaches to solving the problem have been formulated. Various aspects of this phenomenon became the subject of further research. In particular, M. Dzikovska (coaching as the pedagogical technology in professional training of future specialists) [4]; O. Hubar (coaching as an innovative technology for student-centered learning in higher education institutions) [6]; G. Poberezska (coaching as a pedagogical technology of student-centered learning in universities) [2]; L. Popova (evolution of the term “transversality” in the modern scientific space: foreign experience) [3] and others.

The role of the teachers in modern conditions, their ability to rethink and adapt to the challenges that society poses to educators is considered in the scientific investigations of researcher F. Korthagen, who emphasizes that “Most of all, professional development 3.0 connects the professional with the personal aspects of learning. The studies on core reflection cited above show the need to address the whole person in efforts to bring about professional learning and also that this can lead to the reframing of deeply ingrained limiting beliefs and to new and effective behaviour in the classroom. In this respect, it is remarkable that until recently, in the literature on teacher learning, relatively little attention has been devoted to professional development at the layers of teachers’ professional identity and mission [8, p. 14]”. The change in the paradigm of modern education implies the need to find new educational technologies that can be introduced into the professional training programs of future specialists in institutions of higher education. Of special interest are the scientific studies of foreign scientists, namely: Timonen, P., & Ruokamo, H. (Designing a preliminary model of coaching pedagogy for synchronous collaborative online learning) [11]; Huang, R.J. Spector, M. & Yang, J. (Educational Technology. A Primer for the 21st Century) [5] and others.

In this dynamic environment, the roles of teaching, coaching, and tutoring are essential yet distinct components of student-centered learning. Thus, Hwangji S. Lu, Robert Smiles explore how flipped classrooms, combined with cooperative learning strategies, can enhance student engagement and learning outcomes in higher education. They provide empirical evidence on the effectiveness of such approaches and suggests practical implementations for educators [8].

The purpose of the article. The primary purpose of this article is to explore the evolving landscape of higher education by examining the integration of innovative pedagogical technologies that emphasize

student-centered learning. It aims to provide an in-depth analysis of the roles of teaching, coaching, and tutoring within this framework, highlighting how each role contributes uniquely to creating a holistic and effective learning environment.

Presenting of the main material. In recent years, the landscape of higher education has undergone a significant transformation driven by the integration of innovative pedagogical technologies that emphasize *student-centered learning*. This paradigm shift moves away from traditional, instructor-led teaching methods, focusing instead on personalized learning experiences that cater to students’ needs, abilities, and interests. As higher education evolves, the roles of *teaching*, *coaching*, and *tutoring* become increasingly intertwined, each contributing uniquely to the holistic development of students.

Teaching is the process of imparting knowledge, skills, values, and attitudes to students through structured learning experiences. It involves guiding learners in acquiring new information, understanding complex concepts, and developing critical thinking and problem-solving abilities. Teaching is a fundamental aspect of education and plays a crucial role in shaping individuals and society. Analyzing key aspects of teaching we should notice some of them, namely: *curriculum design and planning, instruction and delivery, classroom management, assessment and evaluation, feedback and support, differentiation, integration of technology*.

Teachers develop lesson plans and curriculum structures that outline what students need to learn and how the learning will be assessed. This involves selecting appropriate content, materials, and activities to meet educational standards and objectives. Teachers deliver instruction through various methods, such as lectures, discussions, demonstrations, and interactive activities. Effective teaching involves adapting delivery methods to suit different learning styles and keeping students engaged. Teachers maintain a productive learning environment by managing student behavior, setting expectations, and fostering a positive and respectful classroom atmosphere. Teachers assess student learning through tests, quizzes, assignments, projects, and observations. Evaluations help measure student progress, identify areas for improvement, and guide future instruction. Teachers provide constructive feedback to students, helping them understand their strengths and areas for growth. Support can include additional instruction, resources, or encouragement to foster student development. Teachers differentiate instruction to accommodate diverse learners, including those with varying abilities, interests, and backgrounds. Modern teaching often involves using technology to enhance learning. Teachers may use educational software, online resources, and interactive tools to make lessons more engaging and accessible.

Table 1

Different Types of Teaching used in Educational process

Types of Teaching	Content of Educational process
Traditional Classroom Teaching	involves face-to-face instruction within a physical classroom setting, where teachers directly interact with students
Online Teaching	utilizes digital platforms to deliver instruction remotely, allowing for flexible learning environments that cater to various needs and circumstances
Blended Learning	combines traditional classroom teaching with online elements, offering a hybrid approach that balances face-to-face interaction with digital resources.
Special Education Teaching	focuses on providing tailored instruction to students with learning disabilities or special needs, using specialized methods and resources
Montessori and Alternative Teaching	emphasizes student-centered learning approaches, such as Montessori, Waldorf, or Reggio Emilia, that prioritize experiential and individualized learning experiences.
Vocational and Technical Education	provides practical skills and training for specific careers or industries, focusing on hands-on learning and real-world applications.

The role of a teacher extends beyond imparting knowledge; it encompasses guiding, mentoring, and inspiring students to achieve their full potential. Here are some key responsibilities of a teacher: *facilitator* (teachers facilitate learning by creating a supportive and engaging environment where students feel comfortable exploring new ideas and asking questions); *mentor* (teachers serve as mentors, offering guidance, encouragement, and support to students as they navigate their educational and personal growth); *role model* (teachers act as role models, demonstrating positive behaviors, attitudes, and values that students can emulate); *lifelong learner* (teachers continually seek to improve their own knowledge and skills, staying updated on educational trends, methodologies, and subject matter expertise); *collaborator* (teachers work collaboratively with colleagues, parents, and the community to support student learning and create a cohesive educational experience).

Teaching in a student-centered context involves creating a dynamic and engaging environment where learners actively participate in their educational journey. This role encompasses more than just delivering content; it involves facilitating critical thinking, collaboration, and personal growth. Here are some innovative pedagogical technologies and strategies associated with teaching: *Flipped Classroom* (In a flipped classroom, students engage with lecture materials at home (often through videos or readings) and spend class time in active learning activities such as discussions, projects, or problem-solving tasks); *Blended Learning* (Combines traditional face-to-face instruction with online learning elements, providing flexibility and personalized pacing for students); *Project-Based Learning (PBL)* (Students work on complex, real-world projects that require critical thinking, collaboration, and creativity. This approach emphasizes practical application of knowledge and skills, making learning more relevant and engaging); *Problem-Based Learning – similar to PBL* (This method involves presenting students with real-world problems to solve, fostering critical thinking, research, and collaborative skills); *Gamification* (Incorporating game elements into the

learning process can make education more engaging and motivating. Platforms like Kahoot!, Quizizz, and Classcraft allow teachers to create interactive quizzes and challenges); *Virtual and Augmented Reality (VR/AR)* (These technologies offer immersive learning experiences that can simulate real-world scenarios or visualize complex concepts, enhancing understanding and retention); *Collaborative Learning Platforms* (Tools like Google Workspace, Microsoft Teams, and Slack facilitate collaborative projects and communication among students, encouraging peer learning and teamwork); *MOOCs (Massive Open Online Courses)* (Platforms like Coursera, edX, and Udacity offer a wide range of courses from top universities, allowing students to explore subjects of interest and learn at their own pace); *Personalized Learning Software* (Adaptive learning technologies, such as DreamBox, Knewton, and Smart Sparrow, customize the learning experience based on individual student progress and needs).

Among the most significant advantages of traditional learning technology, the most effective ones should be identified, namely: *knowledge transfer, skill development, character building, empowerment, innovation and creativity, social development.*

In summary, teaching is a dynamic and multifaceted profession that plays a vital role in shaping individuals and societies. It involves a combination of instruction, mentorship, and support to guide learners in acquiring knowledge, skills, and values that prepare them for future success. Whether in traditional classrooms, online platforms, or alternative settings, teaching is the foundation of education and a cornerstone of human development.

Coaching is a developmental process aimed at helping individuals or groups improve their skills, performance, and personal development. It involves guiding, mentoring, and supporting people to achieve their goals and reach their full potential. Scientists N. Kalashnik, K. Bereziak, D. Kostenko emphasize that "...an important component of the professional training of a teacher is his professional educational activity for the accumulation of professional

competencies. It is one of the elements of the model, which combines special, informational psychological and pedagogical training. The need to introduce pedagogical coaching as a technology in higher educational institutions is caused by the following circumstances: the complexity of the tasks currently facing pedagogical workers of educational institutions; dynamism and variety of tasks that cannot be solved by the traditional ways; high competition in the market of educational services between various educational institutions [1].”

Here are some key aspects and types of coaching: *goal setting, feedback and assessment, skill development, motivation and encouragement, accountability, problem solving, reflection and growth.*

Coaches work with clients to identify and clarify their goals. This can include personal, professional, or performance-related objectives. Coaches provide constructive feedback to help clients understand their strengths and areas for improvement. This often involves assessing current skills and performance levels. Coaches assist clients in acquiring new skills or enhancing existing ones. This can involve training sessions, exercises, and practice opportunities. Coaches play a crucial role in motivating clients, keeping them focused, and encouraging them to persevere through challenges. Coaches hold clients accountable for their actions and progress toward goals, ensuring they stay on track and committed to their development plan. Coaches help clients identify obstacles and develop strategies to overcome them, fostering critical thinking and decision-making skills. Coaching encourages self-reflection and self-awareness, promoting personal growth and development.

The role of a coach can be characterized as an educator who helps students to identify their strengths, weaknesses, and aspirations, guiding them toward achieving their personal and professional goals (*a role of guides*); motivates students by encouraging self-reflection, resilience, and persistence in the face of challenges (*a role of motivators*); holds

students accountable for their actions and commitments, ensuring they stay focused and committed to their growth journey (*role of accountability partners*); assist students in developing essential life skills, such as time management, leadership, and interpersonal communication (*a role of skill developers*).

In summary, coaching is a powerful tool for personal and professional development. It helps individuals unlock their potential, achieve their goals, and lead more fulfilling lives. Whether students are looking to improve their career, relationships, or overall well-being, coaching can provide the guidance and support needed to make meaningful progress. A number of positive benefits can be achieved and singled out as a result of the introduction of innovative coaching technology, namely: *improved performance* (students often experience significant improvements in their performance, whether in their personal lives, careers, or specific skills); *increased self-awareness* (coaching helps students to gain a deeper understanding of themselves, their motivations, and their potential); *enhanced motivation* (coaches inspire students to stay motivated and committed to their goals, leading to greater persistence and success); *personal growth* (coaching fosters personal development, helping students to grow and evolve in various aspects of their lives); *effective problem solving* (students learn to tackle challenges and obstacles more effectively, developing problem-solving skills and resilience).

Tutoring is an educational process where a tutor provides personalized guidance and instruction to a student or a small group of students to enhance their understanding of a particular subject or skill. The main goal of tutoring is to support and complement classroom learning by offering additional help and tailored teaching methods that address the specific needs of the learner. Here are some key aspects and types of tutoring, namely: *personalized instruction, subject mastery, skill development, homework assistance, test preparation, feedback and assessment, motivation and confidence building.*

Table 2

Different Types of Coaching used in Educational process

Types of Coaching	Content of Educational process
Life Coaching	focuses on personal development, helping individuals achieve their personal goals, improve self-confidence, and enhance overall life satisfaction.
Executive Coaching	aimed at business leaders and executives, this type of coaching focuses on leadership skills, decision-making, and organizational performance.
Career Coaching	assists individuals in navigating their career paths, including job searches, career transitions, and professional growth.
Business Coaching	helps entrepreneurs and business owners improve their business operations, develop strategies, and achieve financial success.
Performance Coaching	concentrates on enhancing specific skills and performance in areas such as sports, arts, or workplace productivity.
Health and Wellness Coaching	supports individuals in achieving health-related goals, such as weight loss, fitness improvement, and stress management.
Relationship Coaching	aids individuals or couples in improving their interpersonal relationships and communication skills

Tutors tailor their teaching methods to suit the learning style and pace of the student. This customized approach helps address individual needs more effectively than traditional classroom settings. This often involves breaking down complex concepts into manageable parts. Tutors help students develop essential academic skills, such as problem-solving, critical thinking, and effective study habits, which are crucial for success in their educational journey. Tutors assist students with homework assignments, ensuring they understand the material and complete tasks accurately. Tutors provide support for exam preparation, including test-taking strategies, practice questions, and review sessions to boost student confidence and performance. Tutors offer constructive feedback on students' work and assess their progress over time, helping them identify areas for improvement. Tutors encourage students and help build their confidence by celebrating successes and setting achievable goals. Here's an in-depth look at what tutoring involves:

The role of tutors can be characterized as *subject experts* (tutors possess deep knowledge of specific subjects and provide targeted instruction to help students grasp difficult concepts and improve performance); *personalized instructors* (tutors tailor their teaching methods to suit individual student needs, learning styles, and pace, offering customized support and resources); *confidence builders* (tutors help students build confidence in their abilities by providing encouragement, positive reinforcement, and constructive feedback); *problem Solvers* (tutors assist students in developing problem-solving skills and strategies, enabling them to tackle academic challenges independently).

Among the most significant advantages of innovative technology of tutoring, the most effective ones should be identified, namely: *improved academic performance, enhanced learning confidence, customized learning experience, development of study skills, increased motivation, higher test scores*. In summary, tutoring is a valuable educational resource

that provides students with personalized support to enhance their academic performance and understanding. Whether a student needs help with specific subjects, homework, or test preparation, tutoring can offer the guidance and expertise necessary to succeed.

In modern institutions of higher education, innovative pedagogical technologies often emphasize student-centered learning. This approach shifts the focus from traditional teacher-led instruction to methodologies that prioritize the needs, abilities, and interests of students. When considering the roles of teaching, coaching, and tutoring in this context, each plays a distinct but complementary part in fostering a learning environment where students can thrive.

While teaching, tutoring, and coaching all involve facilitating learning, they differ in focus and approach:

1. *Teaching* (A structured and comprehensive process aimed at delivering education across a wide range of subjects and skills within a formal setting, such as a school or university).

2. *Tutoring* (Offers personalized, focused assistance on specific subjects or skills, often addressing individual learning needs and supplementing classroom instruction).

3. *Coaching* (Emphasizes personal and professional development, often focusing on broader life skills, performance improvement, and goal achievement beyond academic subjects).

While both tutoring and coaching involve guiding individuals toward their goals, they differ in focus and approach:

1. *Tutoring* (Primarily focuses on academic subjects and skills, offering direct instruction and support to improve knowledge and understanding in specific areas).

2. *Coaching*: Emphasizes personal development, goal setting, and performance enhancement, often involving broader life skills and motivation beyond academics.

In a student-centered learning environment, *teaching, coaching, and tutoring* are not mutually exclusive; rather, they complement each other to

Table 3

Different Types of Tutoring used in Educational process

Types of Tutoring	Content of Educational process
One-on-One Tutoring	this personalized approach involves a single tutor working with one student, allowing for individualized attention and customized lesson plans.
Group Tutoring	a tutor works with a small group of students who need help in the same subject area, promoting collaborative learning and peer support
Online Tutoring	tutors provide instruction through digital platforms, offering flexibility and accessibility for students who prefer remote learning
Subject-Specific Tutoring	tutors specialize in particular subjects such as math, science, languages, or literature, helping students improve their knowledge and skills in those areas.
Special Education Tutoring	tutors work with students who have learning disabilities or special educational needs, using tailored strategies to support their learning.
Enrichment Tutoring	designed for advanced students, this type of tutoring aims to deepen understanding and challenge students beyond the standard curriculum.

Different Methods, Technics and Strategies in Teaching, Coaching and Tutoring

Teaching	Coaching	Tutoring
<i>Direct Instruction:</i> A teacher-centered approach where the teacher presents information in a structured manner, often through lectures or demonstrations. This method is effective for delivering factual information and clear explanations.	<i>Active Listening:</i> Coaches pay close attention to what clients say, ensuring they fully understand their needs and concerns.	<i>Diagnostic Assessment:</i> Tutors assess a student's current knowledge and skills to identify strengths and weaknesses before starting the tutoring process.
<i>Inquiry-Based Learning:</i> Students are encouraged to ask questions, explore, and investigate topics to construct their own understanding. Teachers guide this process by facilitating discussions and encouraging critical thinking.	<i>Questioning:</i> Coaches ask powerful questions to stimulate thought and self-discovery, encouraging clients to find their own solutions.	<i>Active Learning:</i> Tutors engage students in hands-on activities, discussions, and problem-solving exercises to enhance learning.
<i>Collaborative Learning:</i> Students work together in groups to solve problems, complete tasks, or learn new concepts. This method promotes teamwork, communication skills, and peer learning.	<i>Modeling:</i> Coaches demonstrate desired behaviors or skills, providing a role model for clients to emulate.	<i>Scaffolding:</i> Tutors provide structured support, gradually reducing assistance as students become more proficient and independent.
<i>Experiential Learning:</i> Students learn through hands-on experiences, such as experiments, field trips, or simulations. This approach helps students connect theoretical knowledge with real-world applications.	<i>Mentoring:</i> Coaches share their own experiences and insights to guide clients, offering advice and wisdom.	<i>Feedback and Correction:</i> Tutors give immediate feedback and correct misconceptions, helping students learn from mistakes and improve.
<i>Flipped Classroom:</i> Students review instructional content at home (e.g., through videos or readings) and engage in interactive activities and discussions in class. This approach shifts the focus from passive listening to active participation.	<i>Behavioral Observation:</i> Coaches observe clients' behaviors and provide feedback on how they can improve or adjust their actions.	<i>Use of Technology:</i> Tutors may use educational technology tools, such as interactive software, videos, and online resources, to make learning more engaging.
<i>Project-Based Learning:</i> Students work on long-term projects that require research, planning, and execution. This method encourages creativity, problem-solving, and application of knowledge.	<i>Visualization:</i> Coaches encourage clients to visualize success and develop a clear mental picture of their goals.	<i>Repetition and Practice:</i> Tutors encourage repeated practice of skills and concepts to reinforce learning and ensure retention.
<i>Differentiated Instruction:</i> Teachers tailor lessons to meet the diverse needs of students, using various methods, materials, and assessments to cater to different learning styles and abilities.		

provide a holistic educational experience. Here's how they can be integrated:

Teaching as Coaching (Teachers can adopt coaching strategies by focusing on student empowerment, encouraging self-directed learning, and fostering a growth mindset).

Tutoring as Teaching (Tutors can incorporate teaching methodologies by designing structured learning activities and assessments that align with students' goals and curricula).

Coaching as Tutoring (Coaches can provide academic support by helping students develop effective study habits, time management skills, and strategies for academic success).

Conclusion. In modern institutions of higher education, the integration of *teaching*, *coaching*, and *tutoring* through innovative pedagogical technologies creates a student-centered learning environment that empowers learners to achieve their full potential. In a student-centered learning environment, *teaching*, *coaching*, and *tutoring* are not mutually exclusive;

rather, they complement each other to provide a holistic educational experience.

Institutions can create collaborative learning communities where teachers, coaches, and tutors work together to support students' academic and personal development. By leveraging the strengths of each approach, educators can offer comprehensive support that addresses the diverse needs of students, preparing them for success in their academic, personal, and professional lives.

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