

INNOVATION SCIENCE AND TECHNOLOGY



Scopus || Electronic journal specializing in Scopus

ISSUE 2



Acceptance of papers **February, 2026**



Acceptance of papers

Published monthly



Topics

economics, technology, social sciences

ISSN 3060-5229



Digital Object Identifier



Visit the website t.me/scopus_IST2100



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TECHNOLOGY"** HAS BEEN REGISTERED
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AGENCY FOR INFORMATION AND MASS
COMMUNICATIONS (AOKA) OF THE
REPUBLIC OF UZBEKISTAN, EFFECTIVE
FROM OCTOBER 9, 2024.

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The scientific electronic journal "Innovation Science and Technology" has been included in the list of scientific publications recommended for the publication of main scientific results of dissertations for the award of PhD and DSc degrees in economics and technical sciences, in accordance with the Resolution No. 370 of the Presidium of the Higher Attestation Commission of the Republic of Uzbekistan, dated May 8, 2025.

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CONTENTS

DIGITAL TECHNOLOGY INTEGRATION TRENDS AND CHALLENGES IN PEDIATRIC DENTISTRY	15
Tursunov Begzod Sherzodovich, Solijonov Sherzod Qahramonovich	
THE ROLE OF RISKS AND RISK MANAGEMENT IN MANAGING THE SOLVENCY OF INSURANCE COMPANIES	20
Xalikulova Shirin Utkir qizi	
INVESTMENT OPPORTUNITIES IN THE SECURITIES MARKET OF UZBEKISTAN: DIVIDEND YIELD, INSTITUTIONAL REFORMS AND INTERNATIONAL ATTRACTIVENESS.....	25
Akhliyor Ibragimov	
A CONCEPTUAL APPROACH TO ANTI-MONOPOLY CONTROL IN SERVICE INDUSTRIES ADAPTED TO THE CONDITIONS OF UZBEKISTAN.....	30
Bekbutayev Nodirjon Fayzullayevich	
TECHNOLOGICAL FEATURES OF WEAR-RESISTANT SURFACING OF METALLIC COMPONENTS ALLOYED WITH CARBON, MANGANESE, AND SILICON USING FUSED FLUXES.....	35
Khudoyorov Sardor Sadullaevich, Khudoykulov Nurilla Zikirillaevich	
ECONOMIC EFFICIENCY OF IMPLEMENTING INTEGRATED MARKETING COMMUNICATIONS IN ENTERING NEW MARKETS IN UZBEKISTAN	39
Baqoyev Sunnatillo Burxon o'g'li	
ENVIRONMENTALLY EFFICIENT FATLIQUORING AGENTS IN KARAKUL FATLIQUORING TECHNOLOGY	46
Rustamov Bobir Ismatovich, Shodieva Dilnoza Turajon qizi	
STRATEGIC PLANNING IN IMPROVING THE METHODOLOGY FOR MANAGING INVESTMENT PROJECTS IN THE TEXTILE INDUSTRY.....	51
Qurbonov Jasurbek Pozilovich	
FOUNDATIONS OF ENGLISH TEACHING BASED ON PROVERBS (UZBEK AND AFGAN WORDS).....	56
Samadi Nooria	
MATHEMATICAL MODELING AND SOLUTION ALGORITHMS OF GEOMETRIC PROBLEMS IN NUMERICALLY CONTROLLED MACHINES.....	60
Khasanov Bobirmirzo Makhmudali ugli, Yusupov Sardorbek Ma'rufovich, Abdullajonov Asadbek Sherzodbek ugli	
INNOVATION IS A KEY FACTOR IN THE DEVELOPMENT OF THE ENERGY INDUSTRY	70
Gavkhar Absamatovna Khamdamova	
MARKETING PROBLEMS IN THE INTERNATIONAL INDUSTRIAL ENTERPRISE MARKET AND FOREIGN EXPERIENCE IN SOLVING THEM	76
Usmanova Dilfuza Ilhomovna	
FUZZY ROBUST CONTROLLERS FOR GAS PURIFICATION PROCESSES	82
Sh. D. Tulyaganov	
METHODOLOGICAL PROBLEMS OF MARKETING IN FURNITURE ENTERPRISES IN THE CONTEXT OF THE IMPLEMENTATION OF THE NEW UZBEKISTAN DEVELOPMENT STRATEGY	87
Musayeva Shoirazimovna	
THE ROLE OF METHODOLOGICAL COMPETENCE IN FUNDAMENTALIZING THE PROFESSIONAL PREPARATION OF FUTURE ECONOMICS TEACHERS	92
Djumanazarova Zamira Kojabayevna	

THE ROLE OF METHODOLOGICAL COMPETENCE IN FUNDAMENTALIZING THE PROFESSIONAL PREPARATION OF FUTURE ECONOMICS TEACHERS

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Abstract: This article examines the content, structure, and significance of methodological competence in the professional preparation of future economics teachers. Methodological competence is analyzed as an integrative component of professional competence, incorporating cognitive, functional, and personal dimensions. Based on the analysis of philosophical, pedagogical, and methodological sources, the study substantiates the necessity of developing methodological competence within competency-based frameworks and digital educational environments. The findings demonstrate that methodological competence serves as a key mechanism linking theoretical knowledge with practical teaching experience and enhances the professional adaptability and innovative readiness of future economics educators.

Key words: methodological competence, future economics teachers, professional training, competence-based approach, pedagogical technologies, digital education, fundamentalization.

Annotatsiya: Mazkur maqolada bo'lajak iqtisodiyot o'qituvchilarining kasbiy tayyorgarligida metodik kompetensiyaning mazmuni, tuzilmasi va ahamiyati tahlil qilinadi. Tadqiqotda metodik kompetensiya pedagogik ta'limning fundamental tarkibiy qismi sifatida ko'rib chiqilib, uning kognitiv, funksional va shaxsiy komponentlari yoritiladi. Nazariy manbalarni tahlil qilish asosida metodik kompetensiyaning zamonaviy pedagogik paradigmalarga, kompetensiyaga asoslangan yondashuvga va raqamli ta'lim muhitiga mos ravishda shakllanishi zarurligi asoslab beriladi. Tadqiqot natijalari metodik kompetensiya nazariy bilim va amaliy faoliyat o'rtasida bog'lovchi mexanizm ekanini ko'rsatadi hamda uni tizimli rivojlantirish bo'lajak iqtisodiyot o'qituvchilarining kasbiy moslashuvchanligi va innovatsion faoliyatga tayyorgarligini oshirishini tasdiqlaydi.

Kalit so'zlar: metodik kompetensiya, bo'lajak iqtisodiyot o'qituvchilari, kasbiy tayyorgarlik, kompetensiyaga asoslangan yondashuv, pedagogik texnologiyalar, fundamentalizatsiya, raqamli ta'lim.

Аннотация: В статье рассматриваются содержание, структура и значение методической компетентности в профессиональной подготовке будущих преподавателей экономики. Методическая компетентность анализируется как интегративный компонент профессиональной компетентности, включающий когнитивные, функциональные и личностные элементы. На основе анализа философских, педагогических и методологических источников обосновывается необходимость формирования методической компетентности в условиях компетентного подхода, цифровизации образования и модернизации высшей школы. Результаты исследования подтверждают, что методическая компетентность выступает механизмом интеграции теоретических знаний и практического педагогического опыта и способствует повышению профессиональной адаптивности будущих специалистов.

Ключевые слова: методическая компетентность, будущие преподаватели экономики, профессиональная подготовка, компетентностный подход, педагогические технологии, цифровизация образования, фундаментализация образования.

INTRODUCTION

The extent to which a country can realize its educational and scientific capacity is strongly influenced by the progress of university research and by the public recognition and spread of scientific, cultural, and socio-political ideas. In the context of globalization, modern society increasingly demands the integration of different forms of knowledge and creative experience, which highlights the necessity of providing graduates with high-quality professional training.

Education plays a crucial role in improving national competitiveness, maintaining and developing cultural identity, and shaping the professional competence of future specialists. Under global conditions, the education system becomes a key driver of ongoing changes in science, technology, economics, and pedagogy.

The main strategic aim of higher education is to prepare highly qualified professionals who possess the required theoretical knowledge, practical skills, and effective ways of thinking. This includes the ability to apply methodological approaches in professional preparation, design and manage educational processes, and effectively use modern pedagogical technologies, methods, and teaching tools.

The fundamentalization of pedagogical education supports the formation of universal and generalized knowledge, reflective thinking, self-development abilities, and professional creativity among future economics teachers. In this regard, methodological competence enables future educators to independently organize their professional activity and successfully solve pedagogical challenges.

REVIEW OF LITERATURE ON THE SUBJECT

The development of methodological competence is a central aspect of teacher education and professional development, serving as a foundation for effective teaching and learning. Scholars such as Abdullayeva (2024) emphasize that methodological competence is essential for university teachers, particularly in inclusive education settings, where teachers must adapt instructional strategies to diverse learner needs [1]. This aligns with broader pedagogical perspectives, highlighting that competence encompasses both theoretical understanding and practical application in real-life classroom contexts.

Methodological knowledge, belonging to the cognitive domain, involves understanding educational principles and techniques, whereas competence reflects the ability to apply this knowledge effectively. Berkimbayev and Niyazova (2021) argue that in the contemporary educational environment, teachers' methodological competence must integrate digital tools and technologies to enhance instructional effectiveness and learner engagement [2].

This reflects a growing international consensus that digital literacy is inseparable from methodological proficiency. Several researchers have explored the specialized aspects of methodological competence for subject-specific teaching. Djumanazarova (2023, 2025) highlights that for future economics specialists, methodological competence involves not only mastery of subject knowledge but also the development of analytical, interdisciplinary, and problem-solving skills, enabling graduates to apply their learning in complex professional scenarios [3].

Romankova (2020) similarly stresses that structured programs integrating theoretical foundations with practical exercises are crucial for the formation of methodological competence in future geography teachers [4].

The structure and components of methodological competence have been further clarified by Sorokina (2014) and Tatarnitseva (2015). They note that methodological competence is multi-dimensional, comprising cognitive, functional, and personal components, which collectively ensure high qualification and professional efficacy [6].

Tolochko and Ridey (2017) extend this view by emphasizing the role of scientific-methodological competence in postgraduate teacher education, demonstrating that a strong methodological foundation supports continuous professional growth and the ability to adapt teaching practices to evolving educational demands [8].

The didactic foundations of the competence-based approach, as noted by Bondar, Trubacheva, and Pehota, reinforce the importance of measurable learning outcomes and student-centered teaching methods. Foreign researchers including Cooper, MacIntyre, and Nworgu similarly underscore the significance of competence as the ability to apply knowledge and skills effectively in diverse and dynamic situations. Collectively, these perspectives highlight that the training of future teachers—especially in specialized fields such as economics—must integrate methodological knowledge, practical skills, and the capacity to transfer competencies across interdisciplinary contexts.

Recent studies also indicate that methodological competence is dynamic, evolving according to professional standards, technological advances, and educational reforms (Djumanazarova, 2023; Berkimbayev & Niyazova, 2021). Consequently, teacher education programs should prioritize competency-based frameworks, combining digital literacy, inclusive pedagogical strategies, and evidence-based methods to prepare teachers for contemporary challenges [5].

In summary, the literature demonstrates that methodological competence is multi-faceted, encompassing cognitive, practical, and digital dimensions. For future economics teachers, this implies an integrated educational approach that fosters subject-specific methodological knowledge, transferable competencies, and adaptive skills, in alignment with international educational standards and competence-based learning outcomes.

RESEARCH METHODOLOGY

This research applied a qualitative theoretical design based on the analysis, synthesis, and systematization of philosophical, pedagogical, and methodological sources. Comparative analysis was also used to evaluate different conceptual interpretations of methodological competence across various educational paradigms and systems.

The study relied on several methodological approaches, including systemic, activity-based, competence-based, personality-oriented, cultural, humanistic, and synergistic perspectives. Together, these approaches created a comprehensive basis for examining the content and structure of methodological competence in the professional preparation of future economics teachers.

ANALYSIS AND RESULTS

The analysis revealed that methodological competence constitutes an integrative and system-forming component of professional competence and occupies a central position in the preparation of future economics teachers. It synthesizes theoretical knowledge, pedagogical values, practical skills, and reflective abilities into a unified professional framework. Unlike isolated methodological skills, which may be limited to the application of particular teaching techniques, methodological competence functions as a comprehensive capacity that enables teachers to interpret educational realities, design meaningful learning environments, and respond flexibly to dynamic classroom situations.

The structural elements identified in the study illustrate the multidimensional nature of this competence. First, mastery of modern pedagogical paradigms provides a conceptual foundation for professional activity. Contemporary paradigms—such as constructivism, competence-based education, student-centered learning, and digital pedagogy—redefine the role of the teacher from knowledge transmitter to facilitator, mentor, and designer of learning experiences. Understanding these paradigms allows future economics teachers to align their instructional strategies with global educational trends and societal demands. In particular, economics education increasingly requires the integration of analytical thinking, real-world problem solving, and interdisciplinary perspectives, which can only be achieved within modern pedagogical frameworks.

Second, knowledge of fundamental methodological principles ensures that teaching decisions are grounded in scientific reasoning rather than intuition alone. These principles include systematicity, consistency, accessibility, scientific validity, integration of theory and practice, and learner-centered orientation. For economics teachers, methodological grounding is especially important because economic phenomena are complex, dynamic, and often abstract. Without a strong methodological foundation, teaching may become fragmented or overly theoretical. A deep understanding of methodological principles allows educators to structure content logically, highlight causal relationships, and guide students in applying economic concepts to authentic contexts.

Third, the application of methodological approaches in professional training represents the operational dimension of competence. This includes the ability to select appropriate teaching models, adapt instructional strategies to diverse student needs, and integrate digital tools and interactive methods. In the context of higher education transformation, economics teachers must be capable of using case studies, simulations, project-based learning, and data-driven analysis. Methodological competence thus implies flexibility and creativity in designing tasks that stimulate critical thinking and foster professional skills. It also requires the capacity to assess learning outcomes in a meaningful and evidence-based manner.

Fourth, the ability to design, organize, and manage the educational process reflects the managerial aspect of methodological competence. Teaching is not limited to delivering content; it involves planning curricula, structuring lessons, coordinating learning activities, and monitoring student progress. Effective organization requires foresight, adaptability, and reflective evaluation. For future economics teachers, this means developing the ability to connect macro-level educational objectives with micro-level classroom practices. Systemic thinking becomes essential, as teachers must consider institutional standards, labor market expectations, and individual learner trajectories simultaneously.

Fifth, the effective use of pedagogical technologies, methods, and instructional tools highlights the technological dimension of methodological competence. Modern education increasingly relies on digital platforms, learning management systems, interactive software, and multimedia resources. Methodological competence involves not only technical proficiency but also pedagogical justification for the use of technology. Digital tools should enhance conceptual understanding, not replace intellectual engagement. In economics education, technology enables data visualization, econometric modeling, and real-time analysis of global economic indicators, thereby enriching students' professional preparation.

The fundamentalization of pedagogical education plays a crucial role in consolidating these structural elements. Fundamentalization implies the development of universal and generalized knowledge that transcends specific techniques. It cultivates reflective thinking, self-development abilities, and professional creativity. For future economics teachers, this means understanding the philosophical foundations of education, the logic of scientific inquiry, and the ethical dimensions of professional practice. Reflective capacity enables teachers to critically evaluate their instructional decisions and continuously improve their performance. Professional creativity encourages the design of innovative teaching solutions adapted to emerging educational challenges.

The results of the study demonstrate that methodological competence functions as a key mechanism connecting theoretical knowledge with practical teaching experience. It serves as a bridge between academic preparation and real-world professional activity. Through systemic, activity-based, and competence-oriented approaches, future teachers learn to transform theoretical constructs into pedagogical action. Activity-based approaches emphasize learning through practice and engagement, while competence-oriented frameworks focus on measurable outcomes and real-life applicability. Together, these approaches strengthen professional preparedness and enhance adaptability within rapidly changing educational environments.

Furthermore, the findings confirm that methodological competence extends beyond technical teaching skills. It encompasses value orientations, professional attitudes, ethical responsibility, and a commitment to lifelong learning. In the context of global educational modernization, teachers must demonstrate civic awareness, openness to innovation, and sensitivity to cultural diversity. Economics education, in particular, often addresses socially significant issues such as economic inequality, sustainable development, and public policy. Therefore, methodological competence also includes the ability to foster critical reflection and responsible citizenship among students.

In addition, the dynamic character of methodological competence should be emphasized. It evolves in response to technological progress, educational reforms, and societal expectations. Continuous professional development, participation in academic communities, and engagement with research are essential for maintaining methodological relevance. The integration of interdisciplinary knowledge further enhances adaptability, enabling economics teachers to connect economic theory with legal, social, and technological contexts.

Overall, the enriched analysis confirms that methodological competence is not a static attribute but a holistic and evolving professional capacity. It integrates conceptual understanding, practical application, technological awareness, and value-based orientation. By strengthening this competence in the preparation of future economics teachers, higher education institutions contribute to the formation of adaptable, reflective, and innovative professionals capable of navigating the complexities of contemporary educational landscapes.

CONCLUSIONS AND SUGGESTIONS

Methodological competence represents a fundamental component of the professional preparation of future economics teachers. It ensures effective implementation of the educational process, supports learners' cognitive and professional development, and increases readiness for innovative pedagogical practice.

The structure of methodological competence includes modern pedagogical paradigms, essential methodological principles, methodological approaches to teacher preparation, profession-oriented strategies, and pedagogical tools. The consistent development of this competence strengthens the fundamentalization of teacher education and promotes professional readiness within the conditions of modern educational transformation.

In addition, moral and civic values play an important role in shaping teachers' professional performance and lifelong learning potential. A competence-based and practice-oriented educational model requires significant changes in the organization of teaching and learning processes. Therefore, developing both life and professional competencies remains an urgent pedagogical task that demands systematic and effective solutions.

List of used literature:

1. Abdullayeva, G. S. (2024). Development of methodological competence of university teachers in the context of inclusive education. *International Journal of Social Science Research and Review*. <https://doi.org/10.47814/ijssrr.v5i5.295>
2. Berkimbayev, K. M., & Niyazova, G. Z. (2021). Methodological approaches to the formation of a teacher's digital competence. *RUDN Journal of Informatization in Education*, 18(4), 305–313. <https://doi.org/10.22363/2312-8631-2021-18-4-305-313>
3. Z.K.Djumanazarova (2025). Methodology for Developing Special Competencies in Future Economics Specialists, *International Journal of Pedagogics*, | <https://doi.org/10.37547/ijp/Volume05Issue05-08>
4. Romankova, K. (2020). Formation of methodological competence of future teachers of geography. *Pedagogy and Education Management Review*. <https://doi.org/10.36690/2733-2039-2020-1-62>
5. Z.K.Djumanazarova (2023). The development of the methodological competence of future economics teachers, *European Journal of Pedagogical Initiatives and Educational Practices*.

6. Z.K.Djumanazarova (2026). Methodological competence as the foundation for fundamentalizing the professional training of future economics teachers. *International journal of social science & interdisciplinary research*, Vol. 15, No. 01. January 2026.
7. Sorokina, I. V. (2014). Teachers' methodological competence as a constituent of high qualification and proficiency. *Samara Journal of Science*, 3(4), 114–116.
8. Tatarnitseva, S. N. (2015). Structure and content of methodological (pedagogical) competence of a foreign language teacher. *Evidence-based Education Studies*.
9. Tolochko, S., & Ridey, N. (2017). Theoretical substantiation of the necessity of formation of scientific-methodological competence of teachers in the system of postgraduate pedagogical education. *ScienceRise: Pedagogical Education*, (8 (16)), 14–19. <https://doi.org/10.15587/2519-4984.2017.108974>

Proofreader: Zokir ALIBEKOV

Layout and Designer: Oloviddin Sobir ugli

2026. № 2

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