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# CRITICAL THINKING IN FOREIGN LANGUAGE FOR SPECIFIC PURPOSES CLASSROOMS: STRATEGIES FOR UNDERGRADUATE STUDENTS

**Abstract. The aim** of this article is to identify effective strategies for embedding critical thinking into English for Specific Purposes (ESP) classrooms and to assess their potential in preparing undergraduates from non-linguistic specialties for participation in global professional communities. The study focuses on pedagogical models that foster analytical reasoning, intercultural awareness, and intellectual autonomy alongside communicative competence. **Methods.** The methodological basis of the research encompasses systemic, competency-based, comparative, and constructivist approaches, which enable a holistic analysis of the theoretical and practical foundations of ESP pedagogy. Methods applied comprise content analysis of scientific sources, comparative review of international and national practices, and generalization of recent studies on critical thinking integration, blended learning, and AI-enhanced instruction**. Results.** The study identifies key strategies, including case-based learning, inquiry-based tasks, debates, simulations, reflective practices, AI integration, and blended learning approaches. Their potential for fostering higher-order thinking, problem-solving, and intercultural communicative competence is analyzed, with a focus on adaptation in Ukrainian higher education. Findings demonstrate that inquiry-based, project-oriented, and AI-supported approaches are most effective in cultivating transferable skills that combine the linguistic, analytical, and ethical dimensions of learning. **Conclusions.** The practical significance of the results lies in recommendations for improving ESP curricula and assessment. Proposed measures include integrating authentic materials, reflective tasks, and AI critique activities, alongside balanced formative and summative evaluation. Implementation of these recommendations will enhance graduates' readiness for

academic and professional collaboration, strengthen the link between language education and employability, and situate ESP pedagogy within the broader framework of global citizenship and digital transformation.

**Keywords:** critical thinking, ESP, foreign language education, AI integration, blended learning, assessment.

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## КРИТИЧНЕ МИСЛЕННЯ У ВИКЛАДАННІ ІНОЗЕМНИХ МОВ ДЛЯ СПЕЦІАЛЬНИХ ЦІЛЕЙ: СТРАТЕГІЇ ДЛЯ СТУДЕНТІВ БАКАЛАВРАТУ

**Анотація. Метою цієї статті** є визначення ефективних стратегій інтеграції критичного мислення у курси англійської мови для спеціальних цілей (ESP) та оцінка їхнього потенціалу у підготовці студентів немовних спеціальностей до участі у глобальних професійних спільнотах.

Дослідження зосереджене на педагогічних моделях, що сприяють розвитку аналітичного мислення, міжкультурної обізнаності та інтелектуальної автономії поряд із комунікативною компетентністю.

**Методи.** Методологічну основу дослідження становлять системний, компетентнісний, порівняльний та конструктивістський підходи, які забезпечують цілісний аналіз теоретичних і практичних засад ESP-педагогіки. Використано методи контент-аналізу наукових джерел, порівняльного огляду міжнародних і національних практик, а також узагальнення сучасних досліджень щодо інтеграції критичного мислення, змішаного навчання та використання штучного інтелекту в освітньому процесі. **Результати.** У статті визначено провідні стратегії, серед яких кейс-метод, дослідницькі завдання, дебати, симуляції, рефлексивні практики, інтеграція штучного інтелекту та змішане навчання. Проаналізовано їхній потенціал у розвитку навичок вищого рівня мислення, розв’язання проблем та міжкультурної комунікативної компетентності з акцентом на адаптацію до української системи вищої освіти. Результати доводять, що найбільш ефективними є

дослідницькі, проєктно-орієнтовані та AI-підтримані підходи, які сприяють формуванню трансферних умінь, що поєднують мовний, аналітичний та етичний виміри навчання. **Висновки**. Практичне значення отриманих результатів полягає у розробленні рекомендацій щодо вдосконалення навчальних програм ESP та системи оцінювання. Запропоновано інтеграцію автентичних матеріалів, рефлексивних завдань та діяльності з критикою AI-продуктів поряд із збалансованим використанням формувального й підсумкового оцінювання. Реалізація цих рекомендацій підвищить готовність випускників до академічної та професійної співпраці, зміцнить зв'язок між мовною освітою та працевлаштуванням і розмістить ESP-педагогіку у ширшому контексті глобального громадянства та цифрової трансформації.

**Ключові слова:** критичне мислення, ESP, викладання іноземних мов, інтеграція штучного інтелекту, змішане навчання, оцінювання.

**Problem statement.** In the context of the rapid development of higher education, foreign language teaching and the cultivation of critical thinking skills are increasingly integrated. Today, language learning is no longer limited to mastering grammar and vocabulary; it requires students to analyze, evaluate, and synthesize information in a way that cultivates intercultural awareness and independent thinking. According to Pometun, "cultivating critical thinking in students of the New Ukrainian School is of paramount importance because it enables students to question, analyze, and make independent judgments from the early stages of education" [17]. This emphasis reflects the global trend of regarding critical thinking as a fundamental educational outcome. The importance of critical thinking in language education has been widely recognized, but its role is particularly urgent for students in non-linguistic specialties who learn a Foreign Language (specifically, English) for Specific Purposes (ESP). These students not only need to possess effective communication skills but also need to be able to critically interpret professional texts, evaluate information, and solve problems within their respective disciplines. In this context, foreign language teaching is no longer just a means of communication; it aims to help undergraduates prepare to participate in global professional communities, where analytical reasoning and intercultural sensitivity are essential. Therefore, integrating critical thinking into ESP courses is essential for developing students' ability to navigate complex professional and academic environments.

**Analysis of Recent Research and Publications**

***1. Historical Foundations of Critical Thinking in Language Education.*** The origins of critical thinking in education can be traced back to classical philosophy, particularly the Socratic method. Socrates emphasized questioning

assumptions, seeking evidence, and engaging in rational dialogue. This tradition of reflective inquiry laid the groundwork for later teaching methods that emphasized reasoning over rote memorization. In the early 20th century, Dewey formally introduced the concept of critical thinking in his book *"How We Think"*, defining it as "active, sustained, and careful thinking" about beliefs and knowledge [5]. Dewey's work placed critical thinking at the heart of progressive education, linking it to democratic participation, civic responsibility, and problem-solving skills. However, in language teaching, early methods, such as the grammar-translation method and the audiolingual method, prioritized rote repetition, vocabulary memorization, and mastery of grammatical structures. These methods left little room for analytical reasoning or reflection, treating language learning as a technical skill rather than a means of intellectual development [7; 10].

Consequently, students often mastered only the form of language but lacked the ability to critically interpret meaning or use language in complex contexts. In the 1970s and 1980s, a significant shift occurred with the rise of Communicative Language Teaching (CLT). CLT, emphasizing authentic communication, meaning negotiation, and problem-solving, created opportunities for learners to engage in analytical tasks and develop language skills [8; 11]. This approach marked the beginning of critical thinking being integrated into language education, encouraging students to evaluate messages, question assumptions, and adapt communication strategies in authentic contexts. From the 1990s to the early 21st century, this trend continued, with task-based learning introducing authentic tasks that required learners to synthesize different perspectives, evaluate various options, and propose solutions. Task-based learning viewed critical thinking as a natural consequence of addressing professional and academic challenges, thus reinforcing its importance in English for Specific Purposes (ESP) contexts [3, 14]. Therefore, the historical development of language teaching reveals a gradual but profound shift: from the mechanical mastery of language forms to a learner-centered approach that integrates communication, reflection, and analytical reasoning. This evolution has created conditions for integrating critical thinking into ESP classrooms, enabling language learning to not only meet communication needs but also the intellectual and professional requirements of a globalized discipline.

***2. Theoretical Models and Pedagogical Approaches.*** Several theoretical frameworks provide a theoretical basis for integrating critical thinking into foreign language teaching, especially in English for Specific Purposes (ESP) teaching.

*Bloom's Taxonomy*. Originally proposed in 1956 and subsequently revised, Bloom's Taxonomy remains one of the most influential models for constructing

learning objectives [13; 10]. It emphasizes a progressive approach from lower-order skills (such as memorization and comprehension) to higher-order skills (including analysis, evaluation, and creation). In ESP classrooms, this taxonomy ensures that students move beyond rote memorization of terminology and develop the ability to critically analyze professional texts, evaluate different interpretations, and propose professional solutions in English.

*Paul and Elder's Framework*. Paul and Elder [16] emphasize intellectual standards such as clarity, accuracy, precision, relevance, and logical consistency. Their model positions critical thinking as a rigorous process of improving the quality of thinking by applying these standards. In ESP teaching, this framework encourages learners not only to produce grammatically correct sentences but also to construct coherent, well-reasoned arguments that fit within the context of professional communication.

*Constructivist Theory*. Constructivism is rooted in the ideas of Dewey and Vygotsky, emphasizing learner-centered teaching methods and believing that knowledge is actively constructed through questioning, reflection, and social interaction. Aljohani [1] emphasizes that knowledge is always an interpretation of reality, not a fixed expression. When applied to ESP teaching, constructivism is reflected in students' tasks of exploring professional texts, reflecting on professional contexts, and collaboratively constructing meaning. This helps to cultivate language competence and critical autonomy, enabling learners to navigate complex subject environments.

*Intercultural Communicative Competence (ICC).* Byram's ICC model has a particularly important impact in linking language learning with intercultural awareness and global citizenship [4]. Hoff emphasizes that ICC is central to the 21st-century classroom, requiring learners to evaluate cultural norms, question existing assumptions, and adjust communication strategies in different professional contexts [12]. In ESP teaching, ICC ensures that students not only possess language competence but also develop a critical awareness of the cultural differences that influence professional discourse.

*Action Research and Teaching Practice*. Empirical studies have confirmed that inquiry-based learning, classroom debate, and reflective practice significantly enhance analytical skills while improving communication skills [6; 13]. These practices shift the teaching model from teacher-centered instruction to learner-centered exploration, encouraging students to question existing assumptions, articulate arguments, and evaluate multiple perspectives.

Authentic materials play a crucial role in developing critical thinking. Lytvynenko et al. [15] argue that authentic materials expose students to the complexity, ambiguity, and cultural diversity of the real world, which cannot be replicated by simplified teaching resources. In ESP teaching, authentic texts

drawn from professional fields challenge learners to interpret professional discourse, assess its relevance, and integrate interdisciplinary insights. These theoretical models and teaching methods collectively demonstrate that critical thinking is not a dispensable supplement to language learning, but a core component of ESP teaching. They provide a structured foundation for designing curricula that integrate language competence, analytical reasoning, intercultural sensitivity, and professional problem-solving skills.

***3. Contemporary Innovations.*** Recent scholarship increasingly emphasizes the role of technology and innovative pedagogy in fostering critical thinking within foreign language education. Blended learning approaches, following Yildiz [18], combine online and face-to-face instruction, offering students diverse materials and perspectives that extend analytical engagement beyond the traditional classroom setting. This integration allows learners to question, evaluate, and synthesize information in flexible ways, strengthening both linguistic competence and transferable reasoning skills.

Digital classrooms, according to Favero et al. [9], further expand opportunities for analytical interaction by incorporating multimedia resources, collaborative platforms, and interactive tasks. These environments encourage students to navigate complexity, compare viewpoints, and develop problem-solving strategies in real-time.

AI has emerged as a particularly influential innovation. Studies by Zakaria et al. [19] and Avsheniuk et al. [2] highlight both the challenges and potential of this approach. When implemented responsibly, AI tools can serve as catalysts for higher-order thinking: students critique automated outputs, identify gaps or biases, and reflect on ethical implications of digital communication. This process transforms AI from a corrective instrument into a stimulus for analysis, evaluation, and ethical reasoning. In addition to technology, authentic materials and inquiry-based practices remain central to innovation. By engaging with real-world texts and professional scenarios, students confront ambiguity and cultural diversity, which strengthens their ability to critically interpret meaning and adapt communication strategies across disciplines. Together, these innovations demonstrate that critical thinking is increasingly positioned as a cornerstone of ESP pedagogy in the digital era.

**Highlighting Previously Unresolved Parts of the General Problem.** Despite the increasing research on critical thinking in foreign language education, several aspects remain underexplored. Most research focuses on the context of English as a Foreign Language (EFL), while the specific challenges of integrating critical thinking into ESP courses are less studied. Non-linguistic specialties require language teaching that not only develops their communication skills but also equips them with analytical skills relevant to their professional fields. The

lack of systematic integration of critical thinking in ESP courses leads to a disconnect between academic preparation and the needs of the global professional community.

Another unresolved issue is the role of Artificial Intelligence (AI) in language teaching. While AI tools are increasingly used in the classroom, research often focuses on their technological efficiency, such as improving pronunciation or fluency, rather than their potential to cultivate higher-order reasoning, ethical awareness, and reflective abilities. How to leverage AI to foster deeper analytical engagement within the ESP context remains an open question.

Finally, assessment methods for evaluating critical thinking in ESP classrooms are still inadequate. Despite the emergence of innovative strategies, such as reflective journals, debates, and peer review, a lack of consensus persists on how to balance formative and summative assessments to ensure sustained support and accountability.

This lack of a robust assessment framework hinders the evaluation of the effectiveness of instructional innovations.

**Formulation of the Article Objectives (Statement of the Task).**

This article aims to demonstrate how effective and innovative teaching practices can cultivate critical thinking skills in undergraduate English as a Second Language (ESP) classes for non-linguistic specialties. The research seeks to elucidate how teaching strategies can simultaneously develop students' communication skills, analytical reasoning abilities, and intercultural awareness, thereby preparing them for participation in global professional communities.

To achieve this aim, the article sets the following **tasks**:

• to analyze modern scientific approaches to the integration of critical thinking into foreign language pedagogy, with particular attention to ESP contexts.

• to identify the main innovative strategies (case-based learning, inquiry-based tasks, debates, reflective practices, AI integration, blended learning) and assess their potential for fostering higher-order thinking and transferable skills.

• to examine assessment methods that align with these strategies, ensuring a balance between formative and summative evaluation.

• to formulate recommendations for improving ESP curricula and teaching practices, with emphasis on adaptation to Ukrainian higher education and alignment with global trends.

The implementation of these objectives will help bridge the gap between traditional language instruction and the demands of contemporary academic and professional environments, situating ESP pedagogy within the broader framework of employability, global citizenship, and digital transformation.

**Presentation of the main material of the study.** The professional training of undergraduates in ESP classrooms increasingly requires the integration of critical thinking as a central pedagogical objective.

Traditional approaches that emphasize grammar and vocabulary are insufficient in preparing students for the demands of global professional communities. Instead, modern ESP pedagogy must cultivate analytical reasoning, intercultural awareness, and intellectual autonomy alongside communicative competence.

A variety of pedagogical approaches have been recognized as effective for embedding critical thinking into foreign language education.

Rather than limiting instruction to grammar and vocabulary, these methods encourage students to engage with complexity, question assumptions, and reflect on their reasoning.

Collectively, they aim to cultivate analytical engagement and intellectual autonomy, preparing undergraduates to operate confidently in academic and professional contexts.

• Case-based learning is one effective approach, as authentic scenarios prompt students to analyze texts, debate interpretations, and evaluate alternative solutions.

• Inquiry-based tasks and classroom debates strengthen analytical abilities while simultaneously improving communicative competence.

• Simulations and reflective journals further reinforce this process, encouraging undergraduates to articulate arguments, challenge assumptions, and connect language practice with metacognitive awareness.

• Artificial intelligence offers new opportunities for fostering higher-order thinking. Students can generate AI-produced summaries of texts and then evaluate their accuracy, identifying gaps or biases. When implemented responsibly, AI supports pedagogical innovation by encouraging undergraduates to compare automated outputs with human interpretations, reflect on nuance, and consider ethical implications. In this way, AI becomes not merely a corrective tool but a catalyst for analysis and critique.

• Blended learning approaches extend the reach of critical thinking beyond the traditional classroom. By combining online and face-to-face instruction, students engage with diverse materials and perspectives, creating opportunities for questioning, evaluation, and synthesis in more flexible ways. This integration of modalities supports both linguistic development and the cultivation of transferable analytical skills.

Building on these insights, the next Table 1 outlines practical strategies for embedding critical thinking into ESP classrooms, highlighting their key features and specific contributions to students' analytical development.

Table 1

**Strategies for Embedding Critical Thinking**

| Strategy | Key Features | Contribution to Critical Thinking | Example in ESP (Geography/Tourism/Journalism) |
|---|---|---|---|
| Case-based learning | Authentic scenarios, debates, and problem analysis | Encourages reasoning and problem-solving | Geography: analyze climate change case;<br>Tourism: redesign failed campaign;<br>Journalism: evaluate media bias |
| Inquiry-based tasks | Questioning, exploration, reflection | Strengthens analytical skills and autonomy | Geography: compare landform terminology;<br>Tourism: study cultural differences in tourist expectations;<br>Journalism: analyze headline framing |
| Debates and simulations | Structured argumentation, role-play | Develops evaluation and synthesis skills | Geography: debate urban expansion vs environment;<br>Tourism: hotel reception role-play;<br>Journalism: press conference simulation |
| Reflective practices | Journals, portfolios | Promotes metacognitive awareness | Geography: field trip reflections;<br>Tourism: intercultural service reflections;<br>Journalism: portfolio of translated articles |
| AI integration | Critiquing AI outputs, bias detection | Fosters ethical reasoning and analysis | Geography: critique AI summary of UN climate report;<br>Tourism: evaluate AI-generated travel brochure;<br>Journalism: assess AI-written news summary |
| Blended learning | Online and face-to-face instruction | Expands engagement with diverse perspectives | Geography: GIS tools online with in-class map analysis;<br>Tourism: booking platforms with service discussions;<br>Journalism: online newsroom tools with editorial debates |

## 2. Role of Technology and Innovation

Digitalization and AI-enhanced pedagogy have significantly broadened the scope of ESP instruction. Modern classrooms increasingly rely on virtual platforms, blended learning environments, and intelligent tools that allow students to interact with diverse materials, critique automated outputs, and reflect on the ethical implications of digital communication. These innovations not only

enhance linguistic competence but also stimulate higher-order thinking, intercultural sensitivity, and global citizenship.

Virtual platforms offer opportunities for collaborative learning across geographical boundaries, allowing students to engage with authentic professional scenarios and participate in intercultural exchanges. Blended learning combines the flexibility of online resources with the immediacy of face-to-face interaction, fostering analytical engagement in multiple modalities. AI tools, when used responsibly, encourage learners to evaluate machine-generated outputs, detect bias, and refine their critical thinking processes. Additionally, immersive technologies such as VR/AR expand the possibilities for simulating professional environments, enabling students to practice communication and problem-solving in realistic contexts.

These innovations collectively reshape ESP pedagogy, positioning critical thinking as a central learning outcome. They also emphasize the importance of educators integrating digital literacy and ethical awareness into language instruction, thereby ensuring that students are equipped to navigate complex professional and intercultural environments. Taken together, these innovations reshape ESP pedagogy, positioning critical thinking as a central learning outcome. To illustrate their specific features and contributions, Table 2 summarizes the main technological innovations currently applied in ESP classrooms, highlighting how each supports the development of critical thinking and professional readiness.

Table 2

**Technological Innovations in ESP Pedagogy and Their Contributions**

| Innovation | Key Features | Contribution to Critical Thinking and ESP Learning |
|---|---|---|
| Virtual platforms | Online collaboration, global connectivity | Promotes intercultural awareness and teamwork |
| Blended learning | Integration of online and face-to-face instruction | Expands engagement, supports flexible analysis |
| Artificial intelligence | Automated outputs, bias detection, adaptive feedback | Encourages evaluation, ethical reasoning, reflection |
| VR/AR technologies | Immersive simulations, interactive environments | Develops problem-solving in realistic contexts |
| Digital classrooms | Multimedia resources, interactive tasks, collaborative tools | Stimulates analytical engagement and adaptability |
| Authentic digital materials | Real-world texts, professional scenarios | Exposes students to complexity and ambiguity |

By embedding the innovations outlined in Table 2 into ESP instruction, educators can create dynamic learning environments where language acquisition is inseparable from analytical reasoning, ethical reflection, and intercultural competence. This integration ensures that undergraduates are not only linguistically proficient but also critically prepared to participate in global professional communities.

**3. Assessment of Critical Thinking in ESP Classrooms**

Addressing the identified research gaps, two key contributions emerge. First, the application of critical thinking strategies within ESP contexts ensures that undergraduates from non-linguistic specialties not only develop communicative competence but also acquire transferable skills, such as problem-solving, evaluation, and synthesis. Second, the integration of artificial intelligence, when implemented responsibly, offers new opportunities for fostering higher-order thinking. Rather than reinforcing surface-level learning, AI can be leveraged to encourage students to critique automated outputs, reflect on potential biases, and engage in ethical reasoning.

To ensure that strategies are effective, appropriate assessment methods must be employed. Evaluating critical thinking requires tools that go beyond traditional language tests, focusing instead on students' ability to analyze, evaluate, and synthesize information. Table 3 outlines the main assessment methods, distinguishing between formative and summative approaches.

Table 3

**Assessment Approaches in ESP Classrooms**

| Assessment Method | Formative or Summative | What It Measures |
|---|---|---|
| Rubrics | Summative | Clarity of argument, evidence, coherence |
| Reflective journals | Formative | Depth of reasoning, self-evaluation |
| Portfolios | Formative | Growth over time, integration of skills |
| Debates/simulations | Summative | Argumentation, problem-solving, and language use |
| AI critique tasks | Formative | Analytical depth, ethical awareness |
| Online peer review | Formative | Responsiveness to feedback, synthesis |

Effective assessment requires a balance between formative and summative methods, ensuring that students receive continuous feedback while also being held accountable for demonstrable outcomes. Rubrics, reflective journals, performance-based tasks, and blended learning evaluations provide mechanisms for measuring the effectiveness of critical thinking strategies, aligning pedagogy with evaluation.

Taken together, the strategies and assessment methods contribute to a holistic model of ESP instruction—one that integrates language learning with the cultivation of analytical reasoning. By situating ESP pedagogy within broader debates on employability, global citizenship, and digital transformation, this study reinforces the view that foreign language education must evolve to meet the complex demands of contemporary higher education.

***4. Practical Application and Comparative Findings***

While theoretical models and pedagogical frameworks provide a strong foundation for embedding critical thinking into ESP classrooms, their true value emerges in practice.

The effectiveness of strategies such as case-based learning, inquiry-based tasks, debates, and AI-supported reflection can only be fully understood when applied to discipline-specific contexts. Undergraduate students specializing in Geography, Tourism, and Journalism encounter distinct professional challenges, and their engagement with critical thinking strategies reflects both the cognitive demands of their disciplines and the communicative requirements of global professional communities.

During the autumn term (September–November, 2025), observations were carried out with first- and second-year students at the Faculty of Geography and the Faculty of Philology (specializing in Journalism) of Ternopil Volodymyr Hnatiuk National Pedagogical University.

By situating practical applications within authentic scenarios, educators were able to observe how students analyze information, negotiate meaning, and construct arguments in English.

These observations reveal not only the strengths and limitations of each strategy but also the ways in which disciplinary perspectives shape the development of higher-order thinking.

A comparative analysis across Geography, Tourism, and Journalism highlights the differentiated outcomes of case-based learning, demonstrating how students' disciplinary orientations influence their reasoning processes, intercultural awareness, and ethical judgment.

*Practical Application: Case-Based Learning*

Scenario: Students are given authentic cases relevant to their field and asked to analyze, debate, and propose solutions in English.

• Geography students: Analyze a case study on climate change impact in the Carpathians. They must interpret scientific data, evaluate policy responses, and present recommendations in English.

• Tourism students: Examine a failed international tourism campaign. They critique cultural missteps, redesign the campaign, and present a new strategy to attract diverse audiences.

• Journalism students: Evaluate a case of media bias in international reporting. They compare headlines, identify framing techniques, and propose guidelines for ethical reporting.

Table 4

**Comparing Case-Based Learning Across Specialties**

| Specialty | Strengths Observed | Challenges faced | Contribution to Critical Thinking |
|---|---|---|---|
| Geography | Strong analytical reasoning with data; ability to connect language with scientific discourse | Difficulty simplifying technical terms for non-experts | Enhances problem-solving and interdisciplinary communication |
| Tourism | Creativity in redesigning campaigns; sensitivity to intercultural differences | Sometimes limited depth in analytical reasoning | Builds intercultural awareness and applied communication |
| Journalism | Excellent skills in evaluating bias and constructing arguments; strong engagement in debates | Tendency to focus on language style over content depth | Strengthens ethical reasoning and evaluative judgment |

Geography students excel in data-driven analysis but need support in adapting technical language for broader audiences. Tourism students excel in intercultural creativity, although they benefit from scaffolding to further develop their analytical rigor. Journalism students demonstrate argumentative and ethical strength, but require a balance between stylistic critique and substantive analysis.

Together, these findings demonstrate that case-based learning promotes discipline-specific critical thinking while also highlighting transferable skills, including reasoning, intercultural awareness, and ethical judgment. This section, therefore, bridges theory and practice, illustrating how critical thinking strategies operate in real ESP classrooms and offering insights into their varied impact on students from different academic backgrounds. The findings underscore the importance of tailoring pedagogical approaches to disciplinary needs while maintaining a shared commitment to cultivating transferable skills that prepare undergraduates for participation in global professional communities.

**Conclusions.** The research highlights that integrating critical thinking into ESP instruction is crucial for equipping non-linguistic undergraduates with the skills necessary to succeed in international professional contexts. Their success depends on more than language proficiency; it also requires the ability to reason critically, navigate cultural diversity, and act with ethical responsibility.

The analysis of theories and methodologies reveals that the most effective ESP teaching models are based on inquiry-based, project-oriented, competency-based, and constructivist approaches, which integrate theoretical knowledge, practical skills, and self-directed learning. These competencies enable students to interpret professional texts, critically evaluate messages, and collaboratively solve problems across disciplines.

The study finds that key innovations in ESP teaching (case-based learning, debate and simulation, reflective practice, blended learning, and the rational integration of AI) have significant potential in developing higher-order thinking and intercultural communication skills. These practices help cultivate flexible, adaptable, and socially responsible graduates who can navigate ever-changing technological and cultural environments with ease. Meanwhile, the learning model that combines project-based activities with digital tools proved most effective, creating authentic and practical environments for students that enable them to interact with professional scenarios and address societal challenges.

The analysis also revealed several limitations of the current ESP teaching system, including insufficient integration of critical thinking into the curriculum, limited exploration of artificial intelligence as a tool for cultivating reflective abilities, and an inadequate assessment framework for measuring analytical outcomes. Addressing these issues requires targeted educational policies, including updating curricula, creating interdisciplinary learning platforms, and promoting collaboration among universities, industry, and the international academic community.

Therefore, ESP teaching should shift from a paradigm that views language learning as purely a matter of communicative skills to a collaborative and innovative educational model centered on critical thinking, practice-oriented learning, digital integration, and cross-cultural sensitivity. Implementing these recommendations will not only improve the quality of ESP teaching but also enhance students' overall ability to participate in global professional collaborations. This will help cultivate a new type of professional, analytical communicators, who can integrate language skills, critical thinking, and ethical awareness within an educational environment. This shift will be a key factor in enhancing the competitiveness of Ukrainian higher education and integrating it into the global academic and professional landscape.

***References:***

1. Aljohani, M. (2017). Principles of constructivism in foreign language teaching. Journal of Education and Practice, 8(5), 1–9.

2. Avsheniuk, N., Koval, T., & Shyshkina, M. (2025). Artificial intelligence in foreign language education: Opportunities and challenges. Information Technologies and Learning Tools, 95(3), 45–62. https://doi.org/10.33407/itlt.v95i3.3456

3. Brookfield, S. D. (2013). Teaching for critical thinking: Tools and techniques to help students question their assumptions. Jossey-Bass.
4. Byram, M. (1997). Teaching and assessing intercultural communicative competence. Multilingual Matters.
5. Dewey, J. (1910). How we think. D.C. Heath & Co.
6. El-Asri, A., & Karfa, A. (2024). Inquiry-based learning in ESP classrooms: A case study. International Journal of Language Education, 8(2), 112–128.
7. Ennis, R. H. (2016). Critical thinking across the curriculum: The wisdom CTAC program. Inquiry: Critical Thinking Across the Disciplines, 31(3), 21–45. https://doi.org/10.5840/inquiryct201631317
8. Facione, P. A. (1990). Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction. American Philosophical Association.
9. Favero, M., Rossi, L., & Conti, A. (2024). Digital classrooms and critical thinking: A European perspective. Education and Information Technologies, 29(1), 77–95. https://doi.org/10.1007/s10639-023-11567-9
10. Glaser, E. M. (1941). An experiment in the development of critical thinking. Teachers College, Columbia University.
11. Halpern, D. F. (2003). Thought and knowledge: An introduction to critical thinking (4th ed.). Lawrence Erlbaum Associates.
12. Hoff, H. E. (2020). The evolution of intercultural communicative competence: Conceptualisations, critiques and consequences for 21st century classroom practice. Intercultural Communication Education, 3(2), 55–74. https://doi.org/10.29140/ice.v3n2.264
13. Kawther, A. (2025). Debates as a tool for fostering critical thinking in ESP contexts. Journal of Language and Education, 11(1), 33–49.
14. Lipman, M. (2003). Thinking in education (2nd ed.). Cambridge University Press.
15. Lytvynko, O., Petrenko, I., & Shevchenko, V. (2025). Authentic materials in ESP pedagogy: A Ukrainian perspective. Pedagogical Sciences, 12(4), 88–102.
16. Paul, R., & Elder, L. (2001). Critical thinking: Tools for taking charge of your learning and your life. Prentice Hall.
17. Pometun, O. (2020). Critical thinking in the New Ukrainian School: Priorities and practices. Ukrainian Pedagogical Journal, 5(2), 15–27.
18. Yildiz, S., Demir, A., & Kaya, B. (2025). Blended learning and critical thinking in ESP classrooms. International Journal of Emerging Technologies in Learning, 20(5), 45–59. https://doi.org/10.3991/ijet.v20i5.45678
19. Zakaria, M., Hassan, R., & Lee, C. (2023). Artificial intelligence and language learning: Critical perspectives. Journal of Educational Technology, 20(3), 99–115.

***Література:***

1. Aljohani, M. (2017). Principles of constructivism in foreign language teaching. Journal of Education and Practice, 8(5), 1–9.
2. Avsheniuk, N., Koval, T., & Shyshkina, M. (2025). Artificial intelligence in foreign language education: Opportunities and challenges. Information Technologies and Learning Tools, 95(3), 45–62. https://doi.org/10.33407/itlt.v95i3.3456
3. Brookfield, S. D. (2013). Teaching for critical thinking: Tools and techniques to help students question their assumptions. Jossey-Bass.
4. Byram, M. (1997). Teaching and assessing intercultural communicative competence. Multilingual Matters.

5. Dewey, J. (1910). How we think. D.C. Heath & Co.
6. El-Asri, A., & Karfa, A. (2024). Inquiry-based learning in ESP classrooms: A case study. International Journal of Language Education, 8(2), 112–128.
7. Ennis, R. H. (2016). Critical thinking across the curriculum: The wisdom CTAC program. Inquiry: Critical Thinking Across the Disciplines, 31(3), 21–45. https://doi.org/10.5840/inquiryct201631317
8. Facione, P. A. (1990). Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction. American Philosophical Association.
9. Favero, M., Rossi, L., & Conti, A. (2024). Digital classrooms and critical thinking: A European perspective. Education and Information Technologies, 29(1), 77–95. https://doi.org/10.1007/s10639-023-11567-9
10. Glaser, E. M. (1941). An experiment in the development of critical thinking. Teachers College, Columbia University.
11. Halpern, D. F. (2003). Thought and knowledge: An introduction to critical thinking (4th ed.). Lawrence Erlbaum Associates.
12. Hoff, H. E. (2020). The evolution of intercultural communicative competence: Conceptualisations, critiques and consequences for 21st century classroom practice. Intercultural Communication Education, 3(2), 55–74. https://doi.org/10.29140/ice.v3n2.264
13. Kawther, A. (2025). Debates as a tool for fostering critical thinking in ESP contexts. Journal of Language and Education, 11(1), 33–49.
14. Lipman, M. (2003). Thinking in education (2nd ed.). Cambridge University Press.
15. Lytvynko, O., Petrenko, I., & Shevchenko, V. (2025). Authentic materials in ESP pedagogy: A Ukrainian perspective. Pedagogical Sciences, 12(4), 88–102.
16. Paul, R., & Elder, L. (2001). Critical thinking: Tools for taking charge of your learning and your life. Prentice Hall.
17. Pometun, O. (2020). Critical thinking in the New Ukrainian School: Priorities and practices. Ukrainian Pedagogical Journal, 5(2), 15–27.
18. Yildiz, S., Demir, A., & Kaya, B. (2025). Blended learning and critical thinking in ESP classrooms. International Journal of Emerging Technologies in Learning, 20(5), 45–59. https://doi.org/10.3991/ijet.v20i5.45678
19. Zakaria, M., Hassan, R., & Lee, C. (2023). Artificial intelligence and language learning: Critical perspectives. Journal of Educational Technology, 20(3), 99–115.