



ISU

INTERNATIONAL SCIENTIFIC UNITY

**XXXIV INTERNATIONAL  
SCIENTIFIC AND PRACTICAL  
CONFERENCE  
«World Trends in the  
Development of Scientific  
Progress»**

**August 14-16, 2024  
Varna, Bulgaria**

**ISBN 978-617-8427-25-2**



INTERNATIONAL SCIENTIFIC UNITY

**XXXIV INTERNATIONAL SCIENTIFIC AND  
PRACTICAL CONFERENCE**  
«World Trends in the Development of Scientific  
Progress»

Collection of abstracts

August 14-16, 2024  
Varna, Bulgaria

UDC 01.1

XXXIV International scientific and practical conference «World Trends in the Development of Scientific Progress» (August 14-16, 2024) Varna, Bulgaria. International Scientific Unity, 2024. 191 p.

ISBN 978-617-8427-25-2

The collection of abstracts presents the materials of the participants of the International scientific and practical conference «World Trends in the Development of Scientific Progress».

The conference is included in the Academic Research Index ReserchBib International catalog of scientific conferences.

The materials of the collection are presented in the author's edition and printed in the original language. The authors of the published materials bear full responsibility for the authenticity of the given facts, proper names, geographical names, quotations, economic and statistical data, industry terminology, and other information.

The materials of the conference are publicly available under the terms of the CC BY-NC 4.0 International license.

ISBN 978-617-8427-25-2



© Authors of theses, 2024  
© International Scientific Unity, 2024  
Official site: <https://isu-conference.com/>

<b>Куравська Н., Кривень С.</b> ФУНКЦІОНАЛЬНА РОЛЬ КОМІЧНОГО У ФОРМУВАННІ ХАРАКТЕРУ Й АТМОСФЕРИ СЕРІАЛУ «ONLY MURDERS IN THE BUILDING».....	121
<b>Levitska A.I.</b> CRITICAL THINKING IN MEDICAL ENGLISH STUDIES: HOW LINGUISTICS INFLUENCES CLINICAL DECISIONS.....	124
<b>Мілюкова І.</b> ФОРМУВАННЯ НАВИЧОК ПСИХОЛОГІЧНОЇ СТІЙКОСТІ В ОСВІТНЬОМУ ПРОЦЕСІ.....	130
<b>Мороз О.</b> ЕКОЛОГІЧНА ОСВІТА ЧЕРЕЗ ПРОЄКТНУ ДІЯЛЬНІСТЬ НА УРОКАХ ТЕХНОЛОГІЙ.....	131
<b>Pavlushenko O., Panchenko D.</b> КАТЕГОРІЯ «ДУХОВНО БАГАТА ОСОБИСТІСТЬ» В СУЧАСНОМУ УКРАЇНСЬКОМУ НАУКОВОМУ ДИСКУРСІ.....	134
<b>Reznikov Yu., Mehboob M.H.</b> INTERNATIONALIZATION AS A TREND IN GLOBAL EDUCATION.....	138
<b>Романюк В.Л., Гладка І.А.</b> ВИКОРИСТАННЯ ОНЛАЙН-РЕСУРСІВ ДЛЯ НАВЧАННЯ ІНШОМОВНОГО ПЕРЕГЛЯДОВОГО ЧИТАННЯ СТУДЕНТІВ І КУРСУ.....	140
<b>Тверігінова Т.І., Іванова Ю.В.</b> ПОЛІЖАНРОВІСТЬ РОМАНУ Ю. ВІННИЧУКА «АПТЕКАР».....	145
<b>Dikal M., Korchuk T.</b> THE USE OF VIRTUAL LABORATORIES AND SIMULATIONS FOR STUDYING BIOORGANIC AND BIOLOGICAL CHEMISTRY.....	148
<b>Yamshynska N., Kutsenok N.</b> EXPLORING THE OPPORTUNITIES AND CHALLENGES OF MOBILE-ASSISTED LANGUAGE LEARNING (MALL).....	150
<b>SECTION: PHYSICAL AND MATHEMATICAL SCIENCES</b>	
<b>Скіцка М.В., Крайниченко А.С.</b> ОГЛЯД МЕТОДІВ РОЗВ'ЯЗКУ ЗАДАЧ ТЕРМОПРУЖНОСТІ.....	155

характер. Завдяки функціонуванню комічного серіал «Only Murders in the Buildings» є непередбачуваним, цікавим і незабутнім для глядачів.

### Список використаних джерел

1. Бусел В. Великий тлумачний словник сучасної української мови. Ірпінь: Перун, 2005. 1728 с.
2. Габідулліна А. Р., Жарикова М. В. Лінгвістична природа гумору: навчальний посібник. Слов'янськ: Б. І. Маторіна, 2021. 140 с.
3. Калита О. Типи комічних текстів та особливості їх стилістичного аналізу. Лінгвостилістичні студії. 2015. Вип. 2. С. 54–61.
4. Коломієць І. І. Основні лінгвостилістичні поняття і категорії. Умань: ВПЦ «Візаві», 2015. 202 с.
5. Підгрушна О. Г. Переклад гумору: відтворення культурно-специфічної лексики. Мова і культура. 2013. Вип. 16. Т. 4. С. 572–577.
6. Савіна Ю. О. Лінгвостилістичні засоби створення комічного та їх відтворення у процесі перекладу (на матеріалі творів Дж. К. Джерома й О. Генрі та їх українськомовних перекладів). Закарпатські філологічні студії. 2019. Т. 2. № 9. С. 58–64.
7. Abrams M. H., Harpham G. G. A Glossary of Literary Terms. 9th ed. Boston, 2009. 393 p.
8. Hakkarainen H. Comical Modernity: Popular Humour and the Transformation of Urban Space in Late Nineteenth Century Vienna. Berghahn Books, Incorporated, 2019. 288 p.

## CRITICAL THINKING IN MEDICAL ENGLISH STUDIES: HOW LINGUISTICS INFLUENCES CLINICAL DECISIONS

**Levitska Anna Ivanivna**

PhD in Pedagogy, Senior Lecturer

Department of Philosophy, Bioethics, and Foreign Languages

Odessa National Medical University

Modern medical education goes beyond mere memorization of facts and requires students to develop critical thinking skills for making well-informed clinical decisions. A key component of this process is the study of medical English. Linguistics plays an important role in shaping students' ability to analyze, evaluate, and make decisions in clinical practice.

Critical thinking in medical practice involves analyzing complex information, evaluating evidence, setting priorities, and making decisions under conditions of uncertainty. The ability to quickly and accurately assess information and make justified decisions is vital for providing quality patient care. In this context, proficiency in

medical English becomes an important tool, as a significant portion of contemporary medical literature and research is published in English.

### **Linguistic Aspects of Critical Thinking**

1. Text Analysis and Interpretation. Medical texts often abound with complex lexical and grammatical constructions that challenge even the most prepared readers. For example, scientific articles may contain complex terms such as "anaplastic thyroid carcinoma" or "idiopathic thrombocytopenic purpura," which require a deep understanding of anatomy and pathophysiology. Without adequate preparation, interpreting such terms can be difficult.

In addition, the authors of medical texts often use passive constructions and specific tenses to describe research and results, such as "it was established that" or "it is assumed that." These constructions can complicate comprehension for students who are not accustomed to the academic style.

2. Interdisciplinary Connections. The study of medical English inevitably leads to the development of interdisciplinary connections, which is of great significance for shaping modern medical professionals. This process allows students not just to memorize terms but to delve into complex concepts that combine biology, chemistry, pharmacology, and even the ethical aspects of medical practice. Imagine a student studying the pharmacokinetics of a new drug. Here, it is impossible to limit oneself to understanding terms such as "absorption" and "metabolism." It is important to realize how biochemical processes in the body affect the efficacy and safety of a drug and what ethical issues might arise from its use.

The integration of this knowledge contributes to a deeper understanding of how drugs interact with biological systems, how genetic variations can influence a patient's response, and why consideration of ethical norms is so important in clinical trials. For example, understanding research ethics in conjunction with biological foundations allows students to critically evaluate clinical trials by asking questions about fairness in participant selection and data confidentiality.

Additionally, medical English plays a key role in studying the psychosocial aspects of healthcare. Psychology, sociology, and anthropology all bring unique perspectives to understanding patients, and language proficiency helps future doctors take these factors into account when providing treatment. They begin to see patients not just as clinical cases but as individuals with unique cultural and social contexts.

3. Communication Skills. Effective communication is the cornerstone of medical practice, and its importance cannot be overstated. In the context of the globalization of medicine, proficiency in medical English becomes a key factor that enables students and professionals not only to exchange information but also to build trust with patients and colleagues from different countries. Communication skills, supported by knowledge of medical English, ensure higher quality patient care and facilitate collective decision-making on an international level.

Imagine a doctor who needs to explain a complex diagnosis to a patient, such as "acute myeloid leukemia" or "hypertrophic cardiomyopathy." It is crucial not only to use medical terminology correctly but also to adapt the language to the patient's level of understanding, ensuring clarity and accessibility of information. Understanding

cultural and linguistic nuances allows the doctor to avoid misunderstandings and misinterpretations, which are critical for building trust.

Furthermore, in international practice, where interaction with colleagues from different countries is a daily reality, medical English becomes a tool for discussing complex cases and sharing advanced treatment methods. This allows doctors to broaden their professional horizons and apply the best global practices in their work. For example, participating in international conferences and seminars and publishing research in leading medical journals require a high level of language proficiency and the ability to articulate thoughts clearly.

Effective communication also plays a crucial role in collective decisions made in hospital settings. Interdisciplinary teams of doctors must quickly and accurately exchange patient information, discuss treatment plans, and coordinate actions. Here, not only the technical aspects of communication, such as the use of medical terms, are important but also skills in active listening, empathy, and teamwork.

4. **Critical Analysis of Research.** In the modern world of medicine, where every decision must be evidence-based, the critical analysis of scientific research takes on paramount importance. A significant portion of relevant medical research is published in English, requiring students not only to read but also to evaluate the methodology, credibility, and relevance of the data presented. This allows them not only to stay abreast of the latest advancements but also to use the acquired knowledge to improve clinical practice.

The process of critical analysis begins with evaluating the source of the publication: How reputable is the journal where the article is published? Has it undergone peer review, and if so, by whom? These questions help students assess the reliability of the information. Next, it is essential to evaluate the study design: Were randomized controlled trials used, how large was the sample size, and were ethical standards maintained?

Consider, for example, a study claiming that a new drug reduces the risk of cardiovascular disease by 50%. At first glance, this is an impressive result, but it is important to question: How was the patient sample organized? Were they randomized? Were factors such as age, gender, and comorbidities considered? Were the results statistically significant, or could they be due to chance?

Critical analysis also involves assessing the limitations of the study. Every scientific work has its limitations, whether in sample size, duration of observation, or potential data biases. Recognizing and understanding these limitations help students set more realistic expectations for applying results in clinical practice.

### **Strategies for Developing Critical Thinking through the Study of Medical English**

1. **Problem-Based Learning.** The use of real clinical scenarios in the educational process is a powerful tool that allows students to immerse themselves in the world of practical medicine.

Imagine a situation where students discuss a patient case with acute coronary syndrome. Instead of merely learning the definition and symptoms of the condition, students work in groups to analyze the patient's medical history, laboratory test results,

and electrocardiograms. This enables them to develop a plan of action that considers both pharmacological treatment and potential surgical interventions. Through this type of learning, students begin to understand how to use medical language to describe symptoms, discuss treatment options, and communicate information to colleagues.

Problem-based learning also fosters the development of interpersonal and communication skills. Students learn to work in teams, discussing different approaches to treatment and making collective decisions. This is important not only for building effective interaction skills with colleagues but also for preparing for future professional activities, where teamwork is an integral part of successful medical practice.

Additionally, this teaching method enhances understanding of the social and cultural aspects of medical practice. By working with clinical scenarios, students encounter a diversity of patients, which teaches them to consider cultural, social, and personal characteristics when making clinical decisions. This helps future doctors become more empathetic and attentive to the needs of their patients.

2. **Discussions and Debates.** Conducting discussions and debates on current medical topics in English is a vital component of the educational process, which contributes to the comprehensive development of students. This teaching method helps improve language proficiency and develop skills in argumentation, critical thinking, and information evaluation.

In these sessions, students have the opportunity to delve deeper into contemporary medical issues, exploring various perspectives and forming their own opinions. For instance, when discussing the use of artificial intelligence in disease diagnosis, students can examine the advantages and disadvantages of the technology, evaluate ethical aspects, and consider potential implications for doctors and patients. This activity requires them to construct logically sound arguments and support them with data from scientific sources.

Debates also encourage students to independently search for information and critically analyze it. Instead of simply accepting data at face value, students learn to question: "What facts support this claim?", "How reliable are the sources?", "What alternative viewpoints exist?". This fosters the skills needed for objective evaluation of medical research and making well-founded clinical decisions.

Moreover, participation in discussions and debates enhances students' communication skills. They learn to express their thoughts clearly and succinctly, actively listen to others, respond to arguments, work in teams, and respect differing opinions. This is particularly important for future doctors who will regularly interact with patients, colleagues, and professionals from various fields.

3. **Case Study Analysis.** Working with case studies in English is a powerful educational tool that allows students to immerse themselves in real clinical situations and develop decision-making skills based on the analysis of gathered information. This approach not only deepens the understanding of theoretical concepts but also helps build practical skills essential for successful medical practice.

Case studies often involve detailed descriptions of clinical cases where students must assess the patient's medical history, perform differential diagnoses, and develop treatment plans. For instance, when studying a patient with an unknown fever, students



need to consider numerous factors such as medical history, laboratory test results, and potential epidemiological risks to arrive at the correct diagnosis. This process requires integrating knowledge from various fields of medicine and the ability to analyze complex information.

Working with case studies develops students' ability to identify key data, distinguish it from secondary information, and form logical connections between symptoms and potential diagnoses. This promotes the development of critical thinking, necessary for making well-founded clinical decisions. Additionally, this approach helps students understand the importance of details in diagnosis and treatment selection, which is particularly relevant in complex or rare cases.

Case study analysis also provides students with the opportunity to interact in teams, discussing various aspects of clinical cases and making collective decisions. This simulates a real work environment where interdisciplinary teams of doctors must collaborate to develop effective treatment strategies. Such cooperation enhances communication skills and teaches students to work as part of a team, an essential aspect of medical practice.

4. **Feedback and Reflection.** Constant feedback from instructors and students' reflection on their decisions play a crucial role in developing critical thinking skills, which are essential in medical practice. These elements of education help students not only correct their mistakes but also gain a deeper understanding of the decision-making process, ultimately improving their professional competencies.

Feedback from instructors allows students to receive valuable comments and recommendations regarding their work. This may include specific information on how they interpreted clinical data, how accurate their diagnoses were, and which aspects of their treatment plans need further development. Instructors, with their extensive clinical experience, can point out subtle details or suggest alternative approaches, prompting students to engage in more in-depth analysis.

For example, when studying a complex case of hypertension, an instructor might note that a student overlooked important factors such as the effects of medications or family history. This encourages the student to reassess their conclusions and consider these elements in the future. Feedback fosters active learning, turning potential errors into opportunities for growth and development.

Reflection, in turn, requires students to independently analyze their approach to problem-solving. Students must evaluate what was done correctly, what went wrong, and why they made certain decisions. This process of self-reflection develops the ability to critically assess one's experience and draw lessons for future practice.

Reflection also promotes the development of metacognitive skills — the ability to be aware of and regulate one's own thinking and learning. Students learn to ask themselves questions like: "What did I learn from this case?", "How can I apply this knowledge in the future?", "How can I improve my diagnostic and treatment skills?" This leads to a more conscious and goal-oriented approach to learning and professional activity.

**Conclusion.** Integrating critical thinking into the study of medical English fosters a deeper understanding and application of the language in medical practice. By

developing critical thinking skills alongside language proficiency, students gain the ability to engage more effectively with complex medical texts, research, and clinical scenarios. They learn to question assumptions, evaluate evidence, and synthesize information from multiple sources, which are crucial skills in navigating the rapidly evolving landscape of modern medicine.

Linguistic skills play a key role in shaping students' ability to analyze information and make well-founded clinical decisions. Proficiency in medical English enables students to access and interpret the latest research findings, communicate effectively with colleagues and patients, and articulate their thoughts clearly in both written and spoken forms. This linguistic competence is essential for collaborative decision-making, where clear and precise communication can significantly impact patient outcomes.

Moreover, by incorporating critical thinking into their language studies, students become better equipped to handle the ethical and cultural complexities of healthcare. They develop an awareness of the nuances and subtleties of medical language, which helps them understand and address the diverse needs of patients from various backgrounds. This holistic approach to education not only prepares students for the challenges of clinical practice but also promotes empathy and cultural sensitivity, enhancing the overall quality of healthcare.

Ultimately, the integration of critical thinking and linguistic skills in medical education creates a foundation for lifelong learning and professional growth. It empowers future healthcare professionals to adapt to new challenges, embrace innovative solutions, and contribute to the advancement of medical science. By fostering these competencies, educators can ensure that students are well-prepared to provide high-quality care in an increasingly globalized and interconnected world.

### References

1. Carter, R. M. Interdisciplinary Approaches to Language and Medicine: Bridging the Gap. III international scientific and practical conference «Bridging Disciplines in Modern Science», Berlin, Germany, 15.03.2024, p. 75-80.
2. Garcia, P. C., & Lee, S. H. Case Study Analysis in Medical Education: Developing Clinical Reasoning and Problem-Solving Skills. *Medical Teacher*, 2022, p. 98-105.
3. Johnson, M. E. The Role of Critical Thinking in Medical Education: Enhancing Clinical Decision-Making Skills. *International Journal of Medical Education*, 2023, p. 45-52.
4. Kim, H. J. The Effectiveness of Simulations in Medical English Language Training. *Simulation in Healthcare*, 2023, p. 11-17.
5. Levitskaia, A. (2024). The impact of digital technologies on the effectiveness of english language learning by medical students. [Вплив цифрових технологій на ефективність вивчення англійської мови медичними студентами.] *Amazonia Investiga*, 12(71), 284-292.
6. Левицька А.І. З'єднуючи світи: Антропологічні рішення для сучасних викликів у навчанні мови XI international scientific and practical conference «Innovative Solutions to Modern Scientific Challenges» Загреб, Хорватія 21.02.2024, с. 168-172
7. Левицька А.І. Юрченко М.В. Формування комунікативної компетенції в освітньому процесі: Досвід для вчителів англійської мови та застосування в інших предметах Інноваційна педагогіка. Одеса, 2023 № 65. Ч. 2. С. 66-69.