

## The Growing Role of Humanitarian Knowledge in Modern Conditions: Cultural Values of Antiquity as a Tool of Influence on the Professional Development of the Competencies of Future Medical Specialists and Pharmacists

**Olha Pylypiv**, (PhD in Philological Sciences, Associate Professor, Lviv Medical Institute, Lviv, Ukraine)

**Lesya Pylypiv**, (PhD in Medical Sciences, Danylo Halytsky Lviv National Medical University, Lviv, Ukraine)

\*Corresponding author: Olha Pylypiv

Received: September 12, 2022

Published: September 28, 2022

**Abstract.** The article is devoted to the issues of the cultural aspect of teaching the Latin language, optimization, and effectiveness of the study of the Latin language in order to update the methodological paradigm. The relevance of the article is due to the emergence of new priorities of higher medical education, the transition from a qualification approach in professional medical education to a competency-based one, where the emphasis is shifted from the "assimilation of knowledge" to the formation of "competences» that ensure professional terminological literacy of a specialist, as well as the need to find and develop optimal theoretical methods and practical methods, the use of modern

innovative technologies and online methods aimed at improving educational outcomes, including in distance learning conditions. The cultural approach to teaching the Latin language is able to give new impulses that will positively influence the spiritual development, upbringing, and training of a new type of specialists - educated, competent, creative individuals who have the skills of self-education and are able to quickly respond to changes in the professional environment.

**Keywords:** health care, medical and pharmaceutical specialists, educational process, Latin language, medical terminology, pharmaceutical terminological apparatus, competencies.

**Introduction.** In modern conditions, the growth of the role of humanitarian knowledge and the Latin language, in particular, as an interdisciplinary science in the formation of the humanitarian education of doctors and pharmacists in Ukraine, is relevant. Today, humanitarian education is designed to expand the linguistic worldview of medical students [1], pharmacists [2], lawyers [3-5], biologists [6], veterinary doctors and farmers [7]. Humanities knowledge increases their general linguistic culture, develops logical thinking thanks to the clear structure of Latin grammar and syntax, has educational value due to the acquaintance of students with its influence on the development of science and culture in the countries of the European Union (EU).

Higher school pedagogy should be aimed at a comprehensive and maximally effective influence on the student – not only on his mind, but also on his heart, feelings and will, preparing young people for practical activities in the system of legal relations "doctor-patient-pharmacist". Promotes enlightenment and spiritual enrichment through the study of humanities and reading ancient authors. While studying at a medical university, future doctors and pharmacists not only acquire professional knowledge, but also immerse themselves in the fascinating and ever-living world of antiquity. They study Latin and ancient Greek languages, which have their own scientific medical and pharmaceutical terminological apparatus, which were spoken and written by the most outstanding physicians of Ancient Greece and Rome – Hippocrates, Aulus Cornelius Celsus, and Claudius Galen [8-12].

Among the researchers involved in teaching Latin in educational institutions, there are I.A. Kozovyka, O.D. Balalaev, N.K. Malinauskene, R.V. Mylenkova, O.V. Sutulu, O.H. Pylypiv, L.V. Myslovska, A. Flobert, M. Lebrun, B. Bakhouché, E. Duthoit, I. Ostrowski, A. Armand, É. Famerie, A. Bodson, M. Dubuisson, H. Wingate and others. Articles devoted to topical issues of teaching Latin to medical students were works by N.V. Bondar, M.I. Hutsol, Y.V. Tsekhmister, Samoilenko, O.G. Pylypiv, O.M. Belyaev, O.V. Magdyuk, B.N. Nurmukhambetov, E.K. Lisaridi and others. [13-25].

The analysis of existing sources shows that the issue of the specificity of teaching the discipline "Latin and the basics of medical terminology" remains insufficiently covered in modern methodological sources and promising for further research in order to reveal the potential of Latin, which is a bridge between the past and present of medicine and pharmacy, as well as problems use of modern interactive methods and teaching methods.

**The purpose of the study** was to determine the main features and trends of Latin language teaching in higher medical educational institutions, to analyze the effectiveness of traditional pedagogical technologies and to formulate general recommendations for improving the didactic process, to search for and develop optimal theoretical methods and practical methods for improving educational results.

**Materials and methods.** The object of the study was the educational process in a medical university, ways of its modernization, intensification, and optimization. T. Pashenko, L. Tarasov, O. Chernetska, E. Mincer, J. Betancourt, Sh. Ewen and others studied humanitarian competences in the content of professional training of future doctors. The analysis of didactic and pedagogical literature from various directions showed the interest of researchers in changing methodological approaches in teaching classical languages. Comparative analysis of scientific and educational literature, clarification of the conceptual apparatus, comparative and comparative and observational methods were applied.

The study is a fragment of research work of the Lviv Medical Institute LLC on the topic "Improving the system of circulation of drugs during pharmacotherapy on the basis of evidentiary and forensic pharmacy, organization, technology, biopharmacy and pharmaceutical law" (state registration number 0120U105348, implementation period 2021-2026) and of the Department of Internal Medicine No. 2 of the Danylo Halytsky Lviv National Medical University on the topic "Peculiarities and markers of the course of internal diseases under conditions of combination with metabolic syndrome and metabolically associated fatty liver disease (state registration number 0122U000165, implementation period 2022-2026).

**Results and discussion.** The main goal of innovative education is the development of intellectual, communicative, linguistic, and creative abilities of students; formation of the student's personality; the formation of skills that affect educational and cognitive activity and the transition to the level of productive creativity; development of different types of thinking; high quality of knowledge, abilities, and skills of a medical student [26]. Changing the methodological paradigm in teaching Latin to future doctors is considered as part of the general problem of increasing the level of professional, communicative and worldview competence of

specialists. The purpose of teaching the academic discipline "Latin language and medical terminology" is, first of all, to provide knowledge of medical and pharmaceutical terminology with the prospect of their further use in professional activities.

In today's dynamic educational space, in the conditions of modernization of higher education institutions, there has been a transition from a qualification approach in professional medical education to a competence approach, where the emphasis is shifted from "acquiring knowledge" to the formation of "competencies that ensure professional terminological literacy of a specialist. According to the requirements of the Standard of Higher Education of Ukraine for the second (master's) level of the field of knowledge 22 "Health care" of the specialties 222 "Medicine", 221 "Dentistry" and 226 "Pharmacy, industrial pharmacy" the discipline "Latin language and medical terminology" ensures the acquisition by students of both general and special (professional, subject) competencies.

The curriculum of the discipline provides for the study of the basics of Latin grammar, the assimilation of the defined terminological minimum as the basis of the international medical vocabulary fund and Latin professional expressions: students' assimilation of certain lexical-grammatical structures necessary for understanding medical terms and their competent translation, Latin-Greek word-forming elements, acquisition of skills independent construction of anatomic-histological and clinical terms, international Latin botanical and chemical nomenclature, writing recipes and studying Latin maxims and aphorisms. Successful mastery of the Latin language, even within the framework of the program, significantly increases the quality of education as a whole.

Latin for doctors and pharmacists is the basis for successful further learning of other medical and pharmaceutical disciplines – such as anatomy, histology, physiology, pharmacology, biochemistry, botany, pharmaceutical chemistry, drug technology, pharmaceutical and medical law, forensic pharmacy, forensic medicine, forensic narcology, forensic psychiatry. More than 70% of all medical and pharmaceutical terminology is of Greek, Roman or Latin origin.

Latin is the only interdisciplinary and professional language of scientists around the world, established by international codes of nomenclature, and its study helps in researching of the etymology of Latin names of plants, understanding many terms without a special translation [6]. Thanks to the study of the Latin language, memory, logic, and thinking develop, which makes it possible to expand the horizons and erudition of future doctors and pharmacists [27].

Scientific research and didactics of the higher school convince us that in the modern conditions of improving the quality of education and its modernization, there is an urgent need to use active innovative learning technologies, which allow to convey to students the necessary amount of knowledge and skills with a shift of emphasis from simple assimilation of knowledge to the formation of certain competencies and practical application of education results.

The study of Latin by students of medical universities in modern conditions requires the formulation and application of an updated methodological paradigm. This

is primarily due to the fact that teaching Latin to future doctors and pharmacists today has a number of features, namely:

**1) The Latin language is often called "dead" because it has lost its communicative function**, and therefore the method of teaching Latin is significantly different from the method of teaching foreign languages, primarily because it does not involve checking the communicative level of knowledge.

In today's extremely globalized world, which has been flooded by computer science and the English language, studying Latin at first glance seems like an unpromising or "old-fashioned" activity. Let's not deny the fact that knowledge of a foreign language (especially English, which today has assumed the role of lingua franca after Latin) is a priority and a necessary condition for achieving professional success in modern society. The decrease in the practical use of Latin and the constant growth of the role of the English language in international professional communication leads to a decrease in motivation to study. However, let's remember how many famous contemporaries the knowledge of Latin and ancient culture became a lucky ticket to great careers, gave access to world values and entrance to the cultural, social, business, and political elite. Among them are such famous personalities as Cameron and Tyler Winklevoss, Mark Zuckerberg, Paul McCartney, Margaret Thatcher, Joan Rowling, Boris Johnson.

**2) Students study not so much the Latin language, but the language of medicine and pharmacy.** The specificity of the discipline "Latin language and medical terminology" is that it is still closer to specialized medical and pharmaceutical disciplines than to linguistic ones.

**3) Outdated traditions of teaching the Latin language** in higher educational institutions, which are based on the quantitative advantage of methods that involve mechanical memorization of samples. The need to learn and understand a large number of medical and pharmaceutical terms, a significant amount of grammatical material that needs to be studied (in particular, the topics "Verb" or "Third declension of nouns", etc.) are the main reasons for learning knowledge.

**4) Limited use of most traditional** innovative interactive teaching methods such as discussion club, brainstorming, round table, etc.

In our opinion, the following aspects should be taken into account when teaching Latin:

**1) Professional**, which involves mastering the language as a means of acquiring the knowledge and skills necessary for its successful mastery: mastering knowledge of phonetics, grammar, vocabulary, terminology, phraseology of the Latin language, sufficient for reading and translating medical terms.

**2) Epistemological**, which involves the formation of a worldview, grammatical and linguistic thinking, the use of the Latin language for learning new Western European languages (by comparing grammatical phenomena in Latin and modern languages and finding words of Latin origin in new languages), developing the ability to independently search for knowledge, creating conditions for creative activity of students. Studying the Latin language, according to many scientists, contributes to the formation of intelligence [28].

**3) Linguistic and cultural**, which involves learning the cultural context of the language, raising the cultural level of students. Its implementation is possible by selecting the appropriate historical and cultural accompaniment of the lesson.

**4) Educational**, which provides for the development of the student's personality, the formation of his character and aesthetic taste, his spiritual enrichment with the means of art, the formation of aesthetic culture, value orientations in the socio-cultural space, the need for further self-education and upbringing, which are realized by selecting the appropriate topic of maxims and catchphrases.

There is no doubt that a doctor or a pharmacist, like a representative of any other profession who has obtained a higher education, must be a highly educated person and remember the axiom that every person is still connected by thousands of invisible threads with the homeland of European civilization. Knowledge of Latin remains with a person forever, even if it is studied only for one or two semesters. Acquaintance with the masterpieces of ancient culture contributes to raising the cultural level of future doctors and pharmacists, introduces the ideas of the ancients about morality in a world where there is a tendency to lose the spiritual experience of previous generations and the dehumanization of medical and pharmaceutical practices related to the circulation of medicinal products.

In our opinion, the following factors can play a key role in the optimization and effectiveness of studying Latin in a medical university:

**1) Increasing the motivation of students' educational and cognitive activities.** The teacher must constantly tell the students that the knowledge and skills acquired during the study of the Latin language will be used during the study of specialized disciplines. This is facilitated by the integration between the Latin language course and medical-theoretical, clinical, and pharmacological, and pharmaceutical disciplines. The teacher, introducing anatomical terms and explaining the rules of grammar used in their construction, should talk about their etymology, borrowing in English and other languages, and presentation in the anatomy course.

Students will be interested to learn the origin and semantics of the medical terms "infection", "intoxication", "immunity", "coronavirus", "sanitation", "physiotherapy", "polyclinic", "typhoid", "manual", "cardiology", "aspirin", "prescription", "vaccine", "medicine", or those that are found in modern life such as "president", "opponent", "radius", "memorandum", "session", "location", "pedal", "project", "manicure", "position", "fact", "processor" or expressions used in the English language "vice versa", a.m., p.m.

In the anatomical section, such mythological names as Atlas (atlas – the first cervical vertebra), Achilles (tendo Achilleus – Achilles tendon), labyrinth, and in the clinical section – Asclepius (semi-mythical hero, doctor), Cyclops (cyclopia – congenital) must be considered a developmental defect that consists in the presence of one eye located on the middle line of the face), Oedipus (Oedipus complex – child's unknown or conscious sexual attraction to parents of the opposite article and double feelings to the other parent), Hygieia, Panacea (daughters of Asclepius), Medusa (caput Medusae - the head of a medusa), Sphinx (the face of a sphinx – facies Sphingis – a symptom of a mask-like face, indicates the immobility characteristic of this mythological character). In the pharmaceutical section, it is worth considering the

mythonyms "heroes" (hero – a demigod, a strong person, a defender; remedia heroica – powerful remedies, Mentha – mint; ambrosia (in ancient Greek mythology – the food of the gods that gave immortality; Adonis spring (Adonis – Greek the young man whom Aphrodite loved), etc.

It is important to avoid monotonous methods of learning Latin. In our opinion, Varietas, Usus, Lusus, Iucunditas (Variety, Benefit, Play, Pleasure) should become the basis of education. It is interesting for students to solve crosswords, puzzles, and conduct quizzes, which may contain questions from both the clinic and anatomy.

**2) Deepening of knowledge on the history of ancient medicine**, which can be successfully used in classes on specialized clinical disciplines.

Future doctors will be interested to learn about the first classic description of gout, made at the end of the 5<sup>th</sup> century B.C. Hippocrates (who introduced the term for this disease into clinical practice) or the first literary description of this disease by the Roman satirist writer of the 2nd century. not. Lucian of Samosata, who suffered from gout, which allowed him to give a vivid description of the clinical manifestations of this disease. Hippocrates also left a description of the symptoms of poliomyelitis, syphilis, and epilepsy. The poet Lucretius Kar also writes about epilepsy. Information about syphilis is found in Claudius Galen, the works of Horace and Plutarch. The first references to tuberculosis are attested by Hippocrates, Galen and the Roman writer Titus Lucretius Carus.

At the same time, students will be interested to learn that the first description of the depressive state of a person in one of the heroes of the Iliad, Bellerophon, can be found in Homer. The modern concept of depression takes its origins from the time of Hippocrates, who described the state of black bile among the four states of human behavior and called it melancholy [29, 30]. The "father of medicine" believed that the symptoms of melancholia are sadness, insomnia, irritability, anxiety, and sometimes aversion to food. He also determined that the manifestations of depression in patients may depend on the weather, season, or seasonal changes. In the writings of Hippocrates, Celsus, and Galen, one can find many interesting issues of deontology and organization of medicine, treatment of patients: appearance of a doctor, doctor's office, diagnosis and prognosis, methods of treatment and prevention of diseases, etc.

**3) Reflection on the use of modern innovative technologies and online methods** as a learning aid, which requires the implementation of innovative projects in the field of learning Latin, the development of free and accessible resources on the Internet, which are integrated into educational (and teaching) activities.

In recent decades, with the advent of digital technologies, there has been an opportunity to rethink the modern didactics of ancient languages, which at first glance seem completely incompatible with these new teaching tools. We share the opinion of a large number of scientists Lebrun M., Schwier R., Misanchuk E., who recommend considering online methods as an aid to learning or as a means of deepening knowledge that can facilitate learning and support its various forms [31, 32].

EU countries are already creating digital resources for learning ancient languages, and there is a desire to adapt traditional teaching methods to the 21st century. Thus, the result of cooperation between the University of Louvain (Belgium) and the Academy in Grenoble (France) was the educational server HELIOS

(<http://helios.fltr.ucl.ac.be>), which specializes in the study of Latin and Greek languages, has an interesting toolkit. The integration of these technologies and resources has become the subject of scientific research and recommendations for their use [33].

According to the French scientist C. Ollivier [30], teaching modern languages online is a problem of student autonomy, and distinguishes three stages of autonomy:

1. Awareness and mobilization of the student's knowledge and skills;
2. The student's awareness of his limits in the performance of a specific task;
3. The student's implementation of strategies and knowledge that allow him to find, manage and effectively use Internet resources in order to compensate for identified shortcomings and achieve the best performance of specific tasks.

The transition to distance education contributed to the intensification of the use of new information technologies, the rethinking of the role of the teacher, and made it clear that even after its closure, the elements of distance education will be actively used in the post-quarantine educational process [6, 34]. Distance learning is an important auxiliary element in the global educational space, it acts as an effective complement to traditional forms of education, as a means of partially solving its urgent problems, especially during the pandemic.

However, for the past three years in Ukraine, due to objective reasons, preference was given to distance learning, the effectiveness of which, in our opinion, depends on many factors, the main of which are: effective interaction between the teacher and the student; use of advanced pedagogical technologies; effectiveness of the developed methodical materials and their quality; the skill of the teacher.

Today, modern information technologies provide unlimited opportunities for solving the problem of distance learning. When organizing a distance learning system, its methodological and meaningful organization, the quality of the selected material for assimilation come to the fore.

In the EU countries, there is a large amount of electronic educational content on the Latin language, in Ukraine this work has only just begun [35-37].

**4) Study of Latin professional medical expressions, catchphrases, maxims, expressions of business language, history, and etymology of medical and pharmaceutical terms.** When studying Latin, one should actively use its rich phraseological fund, which helps to better understand the specifics of the political system, ideology, culture, and moral values, to improve oneself morally and spiritually. It is to the Latin language with its characteristic brevity and brevity that we owe a large number of beautiful maxims and aphorisms with an amazing play on words (Modicus cibi, medicus sibi – Moderate in food - one's own doctor; Medica mente, non medicamentis – Treat with reason, not medicine; Si sapis, sis apis – If you are smart - be a bee).

Wise and concise Latin proverbs, apt and witty aphorisms have taken an honorable place in the international phraseological fund. Created in the country of reason, harmony and beauty, the country of philosophers and poets, in the country where moral philosophy flourished, they contain useful life instructions. It is not by chance that the Roman Horace urged: Sapere aude - Decide to be smart!

Acquaintance with the phraseological heritage of antiquity is very important for every educated person. Latin maxims, proverbs and sayings can feed the human mind, awaken thought and contribute to the formation of a harmonious spiritually rich and creative personality. Cicero repeatedly emphasized the need for the culture of the soul: As a fruitful field without cultivation does not yield a harvest, so does the soul. Cultivation (culture) of the soul is philosophy.

Knowledge of many of them, the ability to use established expressions in written and oral speech, enriches the language, expands the circle of knowledge, allows you to think about the eternal with the ancients.

**5) The principle of systematicity**, which provides for a situation where the vocabulary is expanded gradually. At the same time, the structure of the grammatical or syntactic model is complicated, the educational material provides a systematic repetition of phonetic, grammatical phenomena and vocabulary.

According to French didactics [33], the language of the culture common to citizens of the EU countries, Latin is nowadays a tool for training future elites.

In modern conditions, when there is a threat of the progression of apathy caused by crisis situations in society, higher education institutions should become the center of the best cultural traditions, which pass from generation to generation the baton of knowledge, culture and self-improvement, as well as the best moral and ethical values [26, 34, 37].

Therefore, in modern conditions, the role of humanitarian knowledge as a tool for influencing the professional development of the competencies of future medical specialists and pharmacists is growing.

**Conclusions.** Humanization and humanitarianization of professional education in modern conditions is an important aspect of its holistic and systemic nature. Therefore, the strategic goal of teaching Latin as a language of interdisciplinary communication is the correct method of teaching medical, pharmaceutical, legal, biological and veterinary terminology, promoting the formation of a scientific worldview, the formation of a multicultural linguistic personality, the growth of the level of professional competence of future specialists in the field of medicine and pharmacy, increasing interest and motivation, giving preference to active methods over passive ones, using the Internet, which provides both teachers and students with unlimited opportunities for searching, processing and analyzing information. The effectiveness of using new approaches in didactics can be realized thanks to the organization of creative cooperation with teachers of specialized medical and pharmaceutical disciplines; supporting the importance of the discipline "Latin language and medical terminology" in the formation of a high-level specialist, because mastering it is the key to successfully mastering the terminological apparatus of medicine and pharmacy as a whole. It is this feature that should become the main motivator for medical students and pharmacist students in the "doctor-patient-pharmacist" system of legal relationship regarding doctor's prescription for drugs and pharmacist's dispensing of drugs according to the doctor's prescription in the pharmacy.

The study of the Latin language should remain an integral part of humanitarian education and upbringing. In the conditions of the growing role of humanitarian knowledge, the cultural approach to teaching the Latin language is able to give new



impulses that will positively affect historical processes, spiritual development, and education of a citizen. for the training of a new type of employee – an educated, competent, creative individual who has self-education skills and knows how to quickly respond to changes in the professional environment. Knowledge of Latin proves our intellectual level and belonging to European traditions of education, plays a special role in the process of learning foreign languages, since most European languages have a common origin with Latin.

Summarizing the above, we believe that the prospects for further exploration are the development of new interactive tasks on medical and pharmaceutical terminology, the creation of conditions that would contribute to the formation of a student-researcher, a highly spiritual person capable of constant self-education, creative use of acquired knowledge and non-standard thinking, able to make independent decisions in difficult life and professional situations in the "doctor-patient-pharmacist" system of legal relationships, as well as bear responsibility for their actions during the provision of medical services or during the circulation of medicinal products.

**Conflict of interests.** The authors declare that they have no conflict of interests or/and competing interests.

**Funding.** The authors state, that there was no funding from any state or private agencies for this study.

### **References.**

1. Pylypiv O.G., Myslovska L.V. Basics of modern Latin medical terminology. Lviv, Ivan Franko LNU Publishing House, 2012. 256 p.
2. Pylypiv O.G., Karbovnyk I.V. Lingua Latina ad pharmaciae students. *Study guide for students of the Faculty of Pharmacy. Specialty: 226 "Pharmacy, industrial pharmacy"*. Lviv, LMI, 2019. – 280 p.
3. Mylenkova R.V. Application of an interdisciplinary approach in teaching Latin to law students. *Pedagogical sciences: theory, history, innovative technologies*. 2011. No. 4-5 (14-15). P. 336-345.
4. Pylypiv O., Vitriv H. Characteristics of Latin legal terms-composites. *Foreign philology*. 2015. Issue 128. P. 203–207. URL: [http://nbuv.gov.ua/UJRN/infil\\_2015\\_128\\_29](http://nbuv.gov.ua/UJRN/infil_2015_128_29).
5. Myslovska L.V., Pylypiv O.H., Oilynyk L.R. Latin language and basics of legal terminology. Lviv, LNU named after Ivan Franko, 2015. 280 p.
6. Zapara V.M. The importance and place of the Latin language in the professional training of future specialists in natural sciences. *Materials of the international scientific and practical conference on November 7, 2020 "New concepts of teaching in the light of innovative achievements of modern science"*. incl. O.O. Yaremenko-Hasyuk, O.V. Kholodenko, T.A. Lyashenko. Kyiv: NPU named after M.P. Dragomanov. 2020. P. 21-24. URL: <http://enpuir.npu.edu.ua/bitstream/handle/123456789/32115/Zapara.pdf>.
7. Lugovska I.B. Latin in an agricultural university – language or terminology? *International scientific journal "Professional and applied didactics"*. 2017. Issue 3. P. 166-171.

8. Bakhouché B., Duthoit E. Méthodes d'apprentissage du latin à l'université: entre tradition et innovation. *Revue internationale de pédagogie de l'enseignement supérieur [En ligne]*. 2013. Vol.29. No.1. P.83. DOI: <https://doi.org/10.4000/ripes.702>.
9. Gaffiot Félix. Pour faire in Version Latine. *Jeunet*. 1917. 197 p.
10. Prabhu M. Funny medicine: Hippocrates and the four humours. *Vaccines Work*. 04.08.2022. URL: <https://www.gavi.org/vaccineswork/funny-science-hippocratic-medicine-and-four-humours>.
11. Howick J. Aulus Cornelius Celsus and 'empirical' and 'dogmatic' medicine. *J.R.Soc.Med.*08.12.2016. No.109 (11). P.426–430. URL: <https://journals.sagepub.com/doi/10.1177/0141076816672397>.
12. Claudius Galen. *Past Medical History*. 31.12.2016. URL: <https://www.pastmedicalhistory.co.uk/claudius-galen/>.
13. Pylypiv O., Myslovska L. Cultural aspect of Latin language teaching in the system of university education. *Higher education of Ukraine*. 2003. No. 4. P. 80-84.
14. Pylypiv O.G., Smolska L.Yu., Kiselyova O.G. etc. Latin language and basics of medical terminology. *Kyiv: Medicine*. 2012. 360 p.
15. Pylypiv O.G. Representation of the concept of "fate" in Latin phraseology. Abstracts of the report of the scientific conference of the faculty of the Faculty of Foreign Languages for 2011 (January 30-31, 2012). *Lviv: Center of LNU named after Ivan Franko*. 2012. P. 77-78.
16. Pylypiv O., Hrynyk B. Testing as an effective tool for measuring the level of students' knowledge. Proceedings. Series "Psychological and Pedagogical Sciences" (Nizhyn State University named after Mykola Gogol). *Nizhyn: NSU named after M. Gogol*. 2013. P. 102-108.
17. Pylypiv O. Representation of the linguistic and cultural concept of "fate" in Latin phraseology. *Bulletin of Lviv University. "Foreign languages" series*. 2013. Issue 21. P. 226-233.
18. Pylypiv O., Hrynyk B., Pylypiv L. Lingua Latina et terminologia medica. Latin language for students of the dental faculty. *Lviv: Kwart*. 2014. 310 p
19. Pylypiv O. Latin-language literature of Ukraine of the XV-XVIII centuries: genres, motives, ideas. *Lviv, Ivan Franko National University*. 2014. 380 p.
20. Pylypiv O. Lexical means of representation of the concept "mind" in the Latin language. Metaphysical discourse in philosophy: history and modernity. *Abstracts of the international scientific conference "XXIX Readings, dedicated to the memory of the founder of the Lviv-Warsaw Philosophical School Kazymir Tvardovsky*. February 10-11, 2017. Lviv: Liga-Press Publishing House, 2017. P. 171-172.
21. Pylypiv O.H., Lypetskyi A.D. Names of precious metals in the work of Pliny the Elder "Historia naturalis": a linguistic and cultural aspect. *Science and Education a for Dimension. Philology*. 2017. Vol.29. Iss.116. P. 40-43.
22. Pylypiv O., Lypetskyi A. Semantic motivation of the vocabulary for the designation of precious and semi-precious jewelry stones in the work of Pliny the Elder "Historia naturalis". *Young scientist*. 2018. No. 3(55). P.178–182.
23. Pylypiv O.H. The Latin Language and Medical Terminology. *Kyiv: AUS Medicine Publishing*. 2018. 400 p.

24. Pylypiv O.G., Tsyura S.B. Problems of the organization of humanitarian training of students of higher educational institutions in the context of the goals of the strategy for the development of medical education in Ukraine. *Bulletin of Higher Medical Education*. 2019. No. 8. P. 37-44.
25. Pylypiv O.G., Myslovska L.V. Latin. Textbook for higher educational institutions. Lviv. 2019. 268 p.
26. Hutsol I. Methodology of teaching Latin and foreign languages in terms of the credit and modular system in higher medical educational institutions of Ukraine. *The world of medicine and biology*. 2017. No. 3 (61). P.190-194.
27. Samoilenko O. Teaching the Latin language as one of the leading factors in the professional training of future specialists in the medical field. *"Denwit"*. 2011. Issue 9. Part II. P. 59-65.
28. Lebrun M. E-learning pour enseigner et apprendre: allier pédagogie et technologie. Louvain-la-neuve. *Academia-Bruylant*. 2005. 269 p.
29. Schimelpfening N. The History of Depression. *Very well Mind*. 19.04.2022. URL: <https://www.verywellmind.com/who-discovered-depression-1066770>.
30. Ollivier C. Ressources Internet, wiki et autonomie de l'apprenant. *Actes du colloque Echanger pour apprendre en ligne (EPAL)*. 2007. URL: <http://w3.u-grenoble3.fr/epal/actes.html>.
31. Schwier R., Misanchuk E. Interactive multimedia instruction. *Educational technology publications*. 1993. 366 p.
32. Lebrun M. Des technologies pour enseigner et apprendre. *Bruxelles: de Boeck université*. 1999. 111 p.
33. Charlier B., Peraya D. Nouveaux dispositifs de formation pour l'enseignement supérieur, allier technologie et innovation. *Bruxelles: Published De Boeck*. 2003. 120 p.
34. Current issues of higher medical (pharmaceutical) education: today's challenges and prospects for their solution. *Materials of XVIII All-Ukrainian science and practical conference*. Ternopil, May 20–21. 2021. Ternopil: TNMU, 2021. 592 p.
35. Balalaeva O. Yu. Analytical review of electronic resources for learning the Latin language. *Information technologies and teaching aids*. 2014. Vol. 40. No. 2. P. 74-82.
36. Kolodnytska O. D., Palasyuk, G. B., Vorona I. I. Phraseological fund of the Latin language as a source of formation of lexical competence of future doctors. *Medical education*. 2020. No. 1. P. 41-44.
37. Magdyuk O. V. Latin language in the system of modern higher education of Ukraine. *Ukrainian psychological and pedagogical scientific collection*. 2020. No. 20. P. 42-46.