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**THE IMPORTANCE OF LATIN LANGUAGE IN INTELLECTUAL AND  
CULTURAL DEVELOPMENT OF STUDENTS OF MEDICAL HIGHER  
EDUCATION INSTITUTIONS**

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It is studied in this monograph having at medical education institutions professional knowledge in Latin language perfectly, development of their professional culture and application of medical terminology understanding their essence, students' intellectual and cultural development principles and techniques through Latin language.

Pamphlet is intended for the students studying in the direction bachelor at Medical Education Institutions, doctoral students, researchers.

## **Introduction**

In a time when the goal of building a civil society in our country has been set, it is essential to adopt democratic principles, increase the socio-political activity of citizens, implement individual freedoms in practice, liberalize political processes, improve the multi-party system based on democratic norms and gradually transfer certain powers of state governance to public and self-governing organizations. These tasks, which express universal values, are interconnected with spirituality.

During the years of independence, notable progress has been achieved in the study of medical terminology, and medical culture has been formed. Moreover, in section 4.2 of the Strategy for the Further Development of the Republic of Uzbekistan for 2017-2021, it was emphasized that "It is necessary to pay attention to improving the social protection of the population and the healthcare system, as well as increasing the socio-political activity of women," highlighting the special significance of healthcare development in this regard. There is no doubt that this research, aimed at further developing the healthcare sector and the pharmaceutical industry, will allow for the integration of the Latin language with specialized subjects in medical higher education institutions, develop the intellectual and cultural potential of future medical professionals, and foster spiritually and mentally mature, independent thinkers with firm life perspectives, thereby increasing the social activity of young people.

Globally, especially in European countries, the Latin language is taught from school curricula. All Christian religious literature was written and published in Latin. Today, Latin is the official language of the world's smallest state, the Vatican. It is well known that the medical field of European countries is significantly ahead of the medical systems of other nations. Their deep

understanding of Latin and the correct interpretation of terms in this language greatly assist professionals in the field. This is because all scientific literature in medicine has been interpreted in Latin, and to this day, this language has not lost its importance. In European medical universities, the textbook "Medical Terminology" by Barbara Gylys and Regina Masters, professors at the University of Toledo in Ohio, USA, is widely used. The necessity of improving the didactic foundations of deep and intensive Latin language study, developing a conceptual model for fostering students' linguo-cultural competence, modernizing the normative-methodological support for studying Latin through active international cooperation in the fields of education and healthcare, and improving the practical-technological system of teaching Latin in medical universities define the relevance of the subject under study.

This monograph differs from the previous works as it is dedicated to the didactic foundations of intellectual and cultural development of medical university students in the process of teaching Latin. It is known that all reforms implemented in our independent country are ultimately aimed at realizing human interests in the most complete form, and at providing our people with a prosperous lifestyle. The successful completion of these tasks in a short time is not only connected to the state but also to the steady and conscious activity of every member of the society we live in. The essence of the idea proposed by the First President of the Republic of Uzbekistan, "From a strong state to a strong society," is based precisely on this popular meaning. Forming a strong society is primarily connected with an individual's understanding of their role in society. In this regard, the level of intellectual and cultural development of society's members, the breadth of their thinking, and their worldview are decisive factors. Thus, we can say without error that the factor of intellectual and cultural development has become the most

essential tool for realizing the pressing tasks of our country's development today. For this reason, the theoretical and practical aspects of the issue of intellectual and cultural development are being given great attention today.

The National Program for Personnel Training emphasizes that the education system must be directed towards "forming a new generation of personnel with high general and professional culture, creativity, social activity, and the ability to independently navigate socio-political life and propose and solve future tasks." This requirement makes it imperative that the professional, cultural, and social development of specialists trained in higher education institutions is carried out in a holistic manner.

In our republic, humanizing and socializing education are defined as the main principles in training modern specialists, with national and universal cultural values as their foundation. Moreover, the holistic educational process aimed at improving the professional training of specialists today must be carried out "taking into account the modern achievements of education on a global scale."

In the scope of tasks carried out in teaching Latin, students should acquire a correct understanding of the basics of anatomical knowledge, clinical diagnostics, and writing prescriptions; be familiar with the morphological and syntactic methods in anatomical, clinical, and pharmaceutical fields; and apply them in practice. The results implemented (the Latin-Russian-English-Uzbek medical terms dictionary) have contributed to a correct understanding of the meanings of medical terms in Latin, Russian, and Uzbek and to expanding the knowledge of medical terminology.

## **Theoretical Foundations of Intellectual and Cultural Development of Students in the Process of Teaching Latin**

### **1.1. The Interconnection between Teaching Latin and the Intellectual-Cultural Development of Students**

Latin (*Lingua Latina*) belongs to the Italic group of the Indo-European language family and is named after the tribe that spoke it. Initially, Latin was spoken by the Latins, who inhabited the region of Latium in central Italy, as well as by the people of ancient Rome. By the 1st century BCE, the Roman Italian tribes across the Apennine Peninsula were under the dominance of Rome, and Latin became the common language. From the middle of the 3rd century BCE, Latin spread to ancient cultural centers like Greece, Carthage, Egypt, Syria, and even to the less developed tribes of Europe. Gradually, Latin became the ruling language of the vast Roman Empire, which stretched over territories that now include Romania and Portugal. While Latin spread relatively quickly across Western Europe without significant resistance, it faced opposition from well-established written languages in the Mediterranean, such as Greek, which had a higher cultural status in Greece, Asia Minor, and Egypt. The Greek script played a significant role in these regions. During their interactions with the Greeks, the Romans felt the immense influence of Greek culture, which had achieved a high level of development.

The foundations of scientific medical terminology date back to the works of Hippocrates (ca. 460–370 BCE), known as the "father" of European medicine. Many of the terms used in his works became part of the international medical lexicon. After Hippocrates, scholars from the Alexandrian medical school, such as

Herophilus III (ca. 330 BCE), Erasistratus (ca. 330–240 BCE), and later Rufus of Ephesus (ca. 1st century BCE), along with the learned philosopher, physician, anatomist, and pharmacist Claudius Galen (ca. 129 BCE), contributed significantly to the development of Greek medical terminology. Together with Hippocrates, they laid the foundations of future scientific medical terminology. The Greeks primarily shaped ancient medicine. Since the founding of Rome, Greek natural, scientific, and medical knowledge influenced Roman cultural life. Over time, numerous Greek and Latin words entered the Latin language.

Oral Latin served as the basis for the Romance languages. Simultaneously, literary Latin continued to grow artificially as a "scientific" language in Western Europe for centuries, especially during the Middle Ages (Medieval Latin) and the Renaissance (14th–16th centuries) as Humanist Latin. During this period, Latin was used for teaching, and scientific works were written in it. Ancient Greek and Arabic scholars' works were also translated into Latin. The Canon of Medicine by Abu Ali ibn Sina (Avicenna, 980–1037) was translated into Latin as early as the 12th century and remained a primary source for medical education in Europe until the late 16th century.

Renaissance humanist scholars fought to preserve pure, classical Latin, resisting the corruption and vulgarization of the language, which was increasingly mixed with Arabic words. Greek words, written and pronounced in Latin transcription, were systematized by Erasmus of Rotterdam (1469–1536). During the Renaissance, Latin regained its status and was used in oral and written communication, as well as in scientific discourse and debates. It was at this time that international medical terminology was transferred to a Latin basis. The renowned Italian anatomist and pioneer of modern human anatomy, Andreas Vesalius (1514–1564), taught anatomy and wrote his classical work, "De Humani Corporis Fabrica" ("On the

Structure of the Human Body"), in Latin. Vesalius contributed significantly to the improvement of Latin anatomical terminology and the revival of "correct" pure Latin. The famous English physician William Harvey (1578–1657), who discovered the circulatory system, wrote his work "Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus" ("An Anatomical Study of the Motion of the Heart and Blood in Animals") in Latin. Many prominent European philosophers, scientists, and scholars—such as F. Bacon, T. More, M. Malpighi, T. Hobbes, I. Newton, R. Descartes, G.W. Leibniz, N. Copernicus, and C. Linnaeus—wrote their works in Latin.

Many of M.V. Lomonosov's works were also written in Latin. Russian translators actively contributed to the creation of Russian medical terminology. Russia's first professor of anatomy, academician F.P. Protasov, laid the foundation for anatomical terminology in the Russian language. Russian medical terminology, which was still developing, was further shaped by the work of the 18th-century Russian physician and educator N.M. Maksimovich-Alebadik.

In the 18th century, Latin was still widely recognized in European science, and many scientific works continued to be written in Latin, even alongside national languages. For instance, the Russian surgeon N.I. Pirogov (1810–1881) wrote several works on operative surgery and topographical anatomy in Latin. His work "Topographical Anatomy of the Frozen Cadaver in Three Directions" (1889) was also written in Latin. The famous Russian pharmacologist I.Y. Dyadkovsky wrote and defended his dissertation, "On the Methods of Drug Effects on the Human Body," in Latin. Until 1865, Russian civil and military pharmacopoeias were published in Latin, and medical records were also written in Latin.

As noted by Uzbekistan's First President, Islam Karimov, our ancient and beautiful homeland has been recognized by the international community as one of the cradles of world civilization. Our country has produced countless great figures, scholars, politicians, and military leaders whose contributions to global civilization and culture, especially in the fields of secular and religious sciences—particularly those related to Islam—are priceless.

Starting from the second half of the 8th century, Islamic or Muslim culture began to spread widely in Central Asia. The integration of Islamic culture into the region was not an easy process. Only by the late 8th and early 9th centuries did a unique balance of political power emerge among the region's three major peoples—Arabs, Persians, and Turks—allowing the implementation of the core idea of Islam, the equality of the Muslim ummah. From this time on, the influence of Islam rapidly increased among the peoples of the region.

As President Islam Karimov pointed out, our people have historically made invaluable contributions to the development of Islam and its culture. This truth is well-known and recognized by the global community, including the entire Muslim world. In 2007, the city of Tashkent was declared the Capital of Islamic Culture by the Islamic Educational, Scientific, and Cultural Organization (ISESCO), a division of the Organization of Islamic Cooperation, as a testament to this high recognition.

The Arab conquest united peoples with different traditions, beliefs, and worldviews. During this period, the exchange of scientific achievements between the regions conquered by the Arabs created conditions for the flourishing of intellectual culture.

Scholars and thinkers of Central Asia began to actively study ancient Greek philosophy, science, literature, and art during this time. The teachings of ancient philosophers provided the foundation for the development of science and philosophy in the East during this period. The great achievements in the political, economic, and cultural life of Central Asia during this time are considered the result of the Renaissance. In this period, political and legal sciences, literature and art, medicine, and philosophy experienced significant progress. For the first time, the concept of the human being entered the creative and intellectual domain, and all achievements were aimed at the improvement of humanity itself.

As noted by A.V. Sagadeyev, "The influence of Eastern philosophical ideas on the worldview of medieval Europe and later on the Renaissance is undeniable. This influence began primarily with three great philosophers: Ibn Sina (Avicenna), Ibn Rushd, and Ibn Khaldun. Ibn Sina's philosophical legacy significantly influenced the development of philosophy in three cultural regions: the Muslim East, the Muslim West, and the Christian West."

The ideas of Ibn Rushd, especially, became famous among the Augustinians, and his influence can be seen in the works of Great Albert, Thomas Aquinas, and Duns Scotus. The scientific and artistic wonders created by scholars such as Ahmad al-Farghani, Abu Nasr al-Farabi, Imam al-Bukhari, Isa at-Tirmidhi, Ferdowsi, Abu Ali Ibn Sina, Abu Rayhan Beruni, Mirzo Ulughbek, Abdurahman Jami, Alisher Navoi, and Zahiriddin Muhammad Babur continue to astonish the enlightened minds of the world. The works they created, the pearls of science and discoveries, are considered the pride of our national culture.

Among the leaders of Eastern science and culture in the Middle Ages, without a doubt, Abu Nasr al-Farabi (870-950), who was referred to by his contemporaries as

"Muallim us-Sani" ("The Second Teacher") and known in Europe as Alfarabius or Avennasar, had invaluable contributions in this regard. His social-political ideas and views on the ideal state, in particular, are characterized by progressive descriptions.

In his work "The City of the Virtuous," the scholar embodies the qualities of a perfect human who possesses intellect, will, interest in science, justice, consideration, and ingenuity. In addition to writing commentaries on many of Aristotle's works, Al-Farabi left a rich legacy in the fields of science, literature, and music. At this point, it is worth emphasizing the immeasurable role of Al-Farabi's teachings in shaping and developing the works of great scholars in the East who contributed to the foundation of universal culture, such as Beruni, Ibn Sina, Ibn Tufail, al-Kifti, Ibn Rushd, and many others.

Dante Alighieri, in his work "Divine Comedy," mentions great scholars who contributed to the history of science and philosophy, including Aristotle, Democritus, Plato, Galen, Ptolemy, Hippocrates, and among them, Ibn Sina. The poet refers to these scientific titans as "the family of those who love wisdom." Because Ibn Sina did not stop studying until he firmly and fully understood all sciences. He familiarized himself with the works of the early medieval scholars, striving for universality and a comprehensive mastery of the intellectual heritage and culture of his time.

Ibn Sina created such great works in his time that they are considered rare examples of intellectual and cultural development even today. Among them are "Kitab al-Shifa" (The Book of Healing), "Al-Anas," "Fi al-Hudud" (On the Boundaries), "Hikmat al-Aliya," "Al-Hikmat al-Mushriqiya," "Uyun al-Hikma," and "Al-Mabahis." In addition to theoretical works, Ibn Sina also created

philosophical narratives such as "Hayy Ibn Yaqzan," "The Story of Yusuf," and "The Story of Solomon and Ibn Sol." The content of these works is deeply allegorical and metaphorical. Through the artistic images contained in them, high moral standards and the humanitarian ideas of his time are promoted.

Ibn Rushd, Abu al-Walid Muhammad Ibn Ahmad (Latin: Averroes) was an Arab-Muslim philosopher, sage, and jurist. He was born into a family of judges and received education in Islamic sciences, medicine, and philosophy. Following the recommendation of Ibn Tufail, in 1169, Caliph Abu Yaqub Yusuf ordered Ibn Rushd to write commentaries on several works of Aristotle while he served as the chief judge of Seville. Two years later, Ibn Rushd returned to the position of chief judge in Cordoba. Subsequently, at the order of the caliph, he returned to Morocco and was appointed as court philosopher in place of the aged Ibn Tufail. Ibn Rushd wrote commentaries on all of Aristotle's works except for "Politics."

In reflecting on the role of Latin in modern higher education, it becomes clear that this language cannot be treated as a mere historical curiosity or a formal requirement inherited from the past. Latin functions as a powerful intellectual instrument that connects several essential dimensions of student development: professional, cognitive, cultural, and ethical. When we look at the experience of philosophers and scholars who mediated between ancient and later traditions, such as Ibn Bajja and Ibn Tufail, we see that engagement with earlier knowledge systems has always been a driving force for renewal and progress. In a similar way today, Latin serves not to keep students "in the past," but to open a deeper, structured understanding of the present and to prepare them for the future.

From a practical standpoint, Latin is especially significant in medical and related fields. Modern medical terminology is, to a large extent, built on Latin (and Greek)

roots. When future doctors, pharmacists, and other health professionals understand how these terms are constructed, they are not simply memorizing labels; they are decoding meaningful structures. This allows them to infer the function, location, or effect of a substance or procedure even when they encounter a term for the first time. In my view, this is a crucial argument for maintaining Latin in medical curricula: it cultivates the habit of reasoning through language, rather than passively accepting terminology as something arbitrary and opaque. In a world where scientific vocabulary is constantly expanding, this skill is not a luxury but a necessity.

On the intellectual level, Latin offers a disciplined training in grammatical and logical thinking. Its inflectional system obliges students to pay attention to form, function, and relationship within a sentence. This type of attention is directly transferable to other languages and, more broadly, to any activity that requires analysis of complex structures—be it legal reasoning, scientific argumentation, or critical reading. I would argue that one of the greatest hidden benefits of Latin is that it forces students to slow down and think. In an educational environment dominated by speed, superficial scanning, and fragmented information, Latin restores the experience of deep, concentrated work with text. This “mental discipline” is as valuable as any practical vocabulary list.

Culturally, Latin is a key that unlocks the continuity of European—and more widely, global—civilization. Understanding Latin does not mean uncritical admiration of the ancient world, but rather conscious engagement with the sources that shaped modern ideas about law, politics, ethics, literature, and religion. For students, especially those outside traditionally “classical” disciplines, this contact

with ancient culture can prevent a narrow, present-centred worldview. It reminds them that modern concepts of democracy, human rights, education, and even scientific rationality are part of a long and sometimes contradictory historical conversation. In my opinion, this historical depth is an important antidote to the illusion that everything begins with our own generation.

The educational and moral dimension of Latin teaching is often underestimated. Texts from antiquity raise questions about justice, duty, friendship, courage, and the meaning of human life that remain relevant today. When these texts are approached not only philologically but also pedagogically, they become a rich resource for shaping students' values and personal responsibility.

Finally, the developmental goal of Latin is perhaps the most comprehensive. Through memorizing terms and aphorisms, analysing grammatical structures, and identifying patterns in word formation, students strengthen memory, abstraction, and analytical flexibility. Just as physical training develops endurance and coordination, sustained work with Latin develops mental endurance and the ability to move between levels of meaning—from individual word to sentence, from sentence to argument, from argument to larger worldview. In my view, this is why Latin remains relevant even in digital, technology-driven education: it offers a form of “cognitive gymnastics” that no machine can replace.

The analysis of methodological recommendations for learning Latin shows that almost all of them focus primarily on mastering Latin grammar and vocabulary. There has been insufficient attention given to the exploration of the possibilities of Latin in the intellectual-cultural development of students and enhancing students' independent learning activity.

## **1.2. Pedagogical-Psychological Features of Intellectual-Cultural Development in Teaching Latin**

Intellectual and cultural development may be viewed as a multidimensional process through which an individual learns to think critically, express personal viewpoints, interact responsibly within society, and consciously engage in creative and educational activities. This development equips a person with the ability to understand cultural values, reinterpret them through personal experience, maintain an informed and respectful lifestyle, and effectively transform acquired knowledge and skills into meaningful actions that contribute to both personal growth and social progress.

It is well known that all reforms being implemented in our independent country ultimately aim to perfectly realize human interests and provide our people with a prosperous way of life. The successful resolution of these tasks in the short term is currently linked not only to our state but also to the determined and conscious activities of every member of the society in which we live. The essence of the idea put forward by the First President of the Republic of Uzbekistan to transition from a strong state to a strong society is fundamentally rooted in this people-oriented essence. The formation of a strong society is primarily associated with an individual's understanding of their place in society. In this regard, the level of intellectual-cultural development of society's members, the breadth of their thinking, and the scope of their worldview are critical factors.

Thus, we can assert that the intellectual-cultural development factor has become the primary means of realizing the pressing tasks of our country's progress today. Therefore, significant importance is given today to the theoretical and practical aspects of intellectual-cultural development. In the National Program for Personnel

Training, it is specifically noted that the educational system should focus on “forming a new generation of specialists capable of advancing and solving prospective tasks with a high level of general and professional culture, creative and social activity, and the ability to navigate social and political life independently.

This requirement stipulates that the personality of specialists being prepared at higher education institutions must be holistically shaped in professional, cultural, and social aspects.

In the preparation of modern specialists in our republic, the main principles include the humanization and socialization of education; the basis for these being the clear definition of national and universal cultural values. Simultaneously, the process of personnel training aimed at improving professional readiness must be implemented “taking into account modern achievements in education at the global level.”

When discussing intellectual-cultural development, it is first necessary to clarify the essence of the concepts “intellect” and “culture.”

Intellect (from Latin intellectus) means knowledge, understanding, and perception. It is the mental capacity of a person, representing the activity that governs the reflection of the world in the human brain and the individual's relations to reality, the ability to reflect and transform life and the environment in consciousness, acquire knowledge, learn, understand the world, and accept social experience; to solve various problems, make decisions, act reasonably and foresee events.

Intellectual skills reflect the development of memory; the development of perception; the development of imagination; and the development of attention.\*\*

Intellect is a personal characteristic that is the ability to reflect objects and phenomena in objective reality in a clear and deep manner, along with their unique

relationships and laws. Intellect is most evident in all cognitive processes, primarily in thinking and creative imagination. It is observed more prominently when independently solving bright new problems.

Despite the fact that the problem of intellect has been extensively studied at both global and national levels, it remains a controversial concept. This is because, although there are various definitions of the term "intellect," this personal quality requires special consideration of the age and psychological characteristics of the object being studied. From this perspective, the intellectual development of students involves expanding their logical, abstract, and creative thinking as well as their ability to apply acquired knowledge, skills, and competencies in practice. This process is understood as solving tasks described in the subject-object (related to general intellect) and subject-subject (related to social intellect) contexts through the appropriate use of methods and techniques in both classroom and extracurricular activities.

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Due to the varying degrees of intellect developed in different individuals, several qualities exist:

1. Clarity of intellect – the simplicity and reliability of thoughts, in which there are no convoluted ideas. This is not only an intellectual characteristic but also a moral

one in a certain sense. Because the clarity of intellect usually involves a sense of responsibility not only for actions but also for thoughts;

2. Logicality of intellect – the consistency and systematic nature of thinking;

3. Depth or reflectiveness of intellect – the ability to recognize uniqueness in objects and phenomena;

4. Breadth of intellect – the ability to think considering all aspects of an issue;

5. Softness and flexibility of intellect – the absence of stereotypical thinking, the ability to change one's way of thinking;

6. Independence and originality – this is not merely the softness of simple intellect, but rather the creative nature of innovative intellectual activity;

7. Critical nature of intellect – the absence of unverified, simply accepted judgments; the presence of deeply studied, analyzed perspectives, along with a serious attitude towards denial. All these individual characteristics of human intellect arise, are formed, and developed during the labor process.

Culture is a collection of material and spiritual wealth created by people in the process of mastering and transforming nature and reality, as well as the means and methods of restoring and creating this wealth.

Culture is not only a collection of material and spiritual wealth created through human creative activity, but at the same time, it reflects the level of societal development; that is, the sum of knowledge, criteria, and values is embodied in culture.

The term "culture" is expressed in various meanings in modern scientific literature. According to experts, the terms "culture" and "kultur" convey the same meaning,

originating from Latin, meaning “to cultivate” or “to nurture.” Later, it was used in the sense of “being educated,” “being cultivated,” and “being knowledgeable.” In the Uzbek language, the term "madaniyat" is widely used and carries the Arabic meaning of "madani – urban." According to American cultural anthropologists A. Kroeber and C. Kluckhohn, as of 1952, there were 164 definitions given to the cultural phenomenon, and in recent literature, this number has exceeded 400.

G. Gafurov, N. Hakimov, and B. Aliyev emphasize the following characteristics of the concept of culture in their book "Culture and Society": “In the concept of culture, both material and spiritual wealth, as well as the human spiritual realm are expressed. Therefore, there are three main layers within culture: 1) the continuous mental and physical creative activities of humanity; 2) the production, consumption (utilization), and preservation of material and spiritual goods; 3) the application of values, moral concepts, and legal actions within social structures. Culture is active creative activity. A person develops and achieves progress through active creativity. Creativity expands the boundaries of human spiritual and mental activity. A person only attains the status of creativity through creative skills and intellectual and physical labor.

The pedagogical scholar Oynisa Musurmonova emphasizes that "Culture is a system that characterizes the level of social development and materializes in the process of socio-historical practice, constituting the social and spiritual essence of the individual. From this, culture consists of the laws of interaction between the individual and society, including the emergence and development of cultural relations between the individual and reality, the ways of organizing the individual’s cultural activities in accordance with their needs, interests, and desires, a system of distinctive features of spiritual culture, and the laws of shaping the individual’s spiritual development and spiritual culture.

From the definitions above, it is evident that "Culture develops along with material and spiritual production, social and interpersonal relations, politics, family, ethics, behavior, law, education, upbringing, creativity, science, service, and lifestyle, reflecting the level of societal development. There is no culture outside of society. Any changes in social relations influence culture and indicate the outcomes of these relations. Therefore, culture is not only a relationship with the past or the present but also with the future. Culture is both a product and a quality indicator of human activity. At the same time, a person is ultimately a product of culture. One could even say that the cultural environment shapes the individual.

The foundational culture of the individual manifests itself as a democratic, aesthetic, moral, national, ecological, legal, family, speech, labor, and communication culture, reflecting the level of development of various abilities. It expresses the ability of a person to develop comprehensively and live within environmental conditions, reflecting the culture of society.

The components of cultural society include all objects, values, knowledge, manifestations of aesthetic consciousness, human activities and their outcomes, cultural relationships in personal life activities and uniqueness.

A foundational culture is established from childhood, and this culture is systematically deepened and improved through education and upbringing. If an individual does not develop the ability to set independent goals and choose the content and methods of their activities, the efforts of all institutions related to education will be in vain.

Thus, young people who are constantly faced with choosing professions, friends, aesthetic impressions, social perspectives, and forms of leisure must acquire the ability to independently define directions that depend on their needs and interests.

Without possessing such capabilities based on the complexity of these life criteria, it is impossible to discuss an individual's foundational culture.

According to academician D.S. Likhachev, "a cultured person is one who understands many things, therefore strives for others, understands others, and 'discovers' the spiritual lives of others enriched by the works of art from various eras and peoples." A crucial distinguishing feature of a cultured person, as emphasized by D.S. Likhachev, is that they are free from aggression, dubious actions, and a set of personal shortcomings. It is necessary for higher educational institutions to shape such individuals.

Intellectual and cultural development expresses an essential characteristic of individual progress and is necessary for independence, individuality, cognitive activity, thinking, self-expression, acting in accordance with societal demands, widely assimilating cultural heritage, establishing a lifestyle of high cultural level, and the ability to apply acquired knowledge, skills, and competencies in practice.

The intellectual and cultural development of students requires the interconnection and unity of various structural components as a holistic system. The structural components of the intellectual and cultural development process can include motivation, cognition, cognitive activity, independence, creativity, worldview, scientific worldview, scientific values, and cultural values. Intellectual and cultural development is related to emotionality. It is necessary to eliminate negative feelings in students and replace them with positive ones. For example, it is important to inspire love towards people. At the same time, students need to develop the feeling of self-confidence in various situations. If loving others expresses a relationship towards them, self-confidence signifies a relationship towards oneself. That is, it reflects the formation of the narrow sense of "self" in

the student. In addition to love and confidence, the ability to let go of one feeling and call forth another, as well as to learn how to manage fear, are also important psychological factors related to emotional reasons.

V.I. Morasanova pays special attention to the issue of character typology in her article "Individual Self-Management and Human Character." According to her, the issue of establishing character typology and characteristics is more natural and is solved through methodological and strict approaches in the theories of individual factors. Here, character traits and types are considered as various ordering factors, described at different qualitative levels of personality structure. The author approaches the study of character typology subjectively, considering the developmental characteristics of conscious self-management. In this context, self-management is studied as a psychological mechanism of subjective activity.

The results of her research show that individual self-management not only allows for the control of character manifestations but also confirms the connection between self-management, character formation, and the development of personal direction.

The development of students' motivational activities is also among the psychological factors affecting intellectual and cultural development. Motivation is the process of mobilizing motives, the aggregate of motives urging an individual towards the main activity. The term "motive," when translated from French, means urging force or reason.

As emphasized in the research by E. Goziev and R. Asomov, the system of motives and motivation performs the function of internal regulation of an individual's activities, interactions, and behavior, satisfying needs, desires, noble intentions, dreams, inclinations, feelings, settingsinstitute, ideals, beliefs, conscience, the

ability to set goals, and others, thereby acting as a primary factor in actualizing them. Motivation and motives not only encompass the assimilation of knowledge and acquisition of educational skills, but also serve to explain an individual's behavior and the manifestation of new qualities.

The motivational relationship in the intellectual and cultural development of students also plays a significant role. To establish a subjective relationship with cultural reality in a student, it is necessary to adhere to the hierarchy of "human – person – individuality – subject – perfection," to reject the erroneous theory that one can uniformly develop all characteristics in a person as a robot, to create a "subject-subject" relationship, to solve the problem that any subject is a person, but not every person is a subject, and to recognize the existence of independence, personal position, determination, worldview, and the possibility of applying them to life as important considerations in the motivation of personal relationships. Moreover, the research dedicated to new social-psychological relationships led by V.M. Karimova is noteworthy in the intellectual and cultural development of students. Through emphasizing the underlying ideas, it is possible to form an understanding of the history, present, and future of the motivation system of relationships in Uzbekistan. Human relationships play a crucial managerial role in behavior, the formation of the inner world, and all psychological processes.

The Latin language taught in medical higher education institutions holds significant potential for students' cultural and intellectual development, embodying the characteristics of "intellectual gymnastics." Through mastering grammatical forms and categories, students develop cognitive processes. Sociological studies conducted in Europe and America show that students who graduated from gymnasiums specialized in ancient languages have achieved great success in their professional and social activities.

Within the teaching of Latin, the primary focus should not be limited to memorizing terms or reproducing grammatical rules. What truly matters is guiding students—especially future medical professionals—toward solving academic and practical challenges independently. When learners are encouraged to reason through uncertainty, evaluate different options, and justify their conclusions, they build intellectual habits that will serve them far beyond the classroom. This ability to search for information, interpret it critically, and take confident decisions is a foundational competency for modern specialists in healthcare.

Engagement with Latin also offers a rich cultural dimension. The ethical, civic, and aesthetic ideals shaped in the Roman world laid the groundwork for many contemporary concepts of social responsibility. By exploring this cultural heritage, medical students strengthen their understanding of professional duty, human dignity, and personal accountability—qualities that define an educated and conscientious member of society.

On a linguistic level, the study of Latin word structure trains observation and analytical precision. Investigating how roots, prefixes, and endings combine to form meaning encourages students to think about language as a system rather than a set of isolated elements. This practice expands cognitive flexibility: students begin to recognize how ancient elements appear in international medical terminology, how older forms influence modern vocabulary, and how new terms emerge from established patterns. In this way, Latin learning becomes a tool for building historical awareness and deepening linguistic intelligence. Overall, Latin education contributes not only to professional readiness but also to the development of reflective, informed, and culturally grounded individuals. It strengthens the intellectual capacity to connect the past with the present while

preparing students to navigate the complex decisions of their future careers with clarity and responsibility.

An essential aspect of learning word formation is reflected in the analysis of borrowed words. In this context, materials in Latin hold particular significance. Analyzing Latin texts not only fosters the intellectual abilities of students but also consolidates lexical elements in the semantics of words in modern languages. Mastering the content of a word involves developing skills to compare it with previously known lexical elements. Understanding many words in Romance languages is related to having knowledge about Latin words and word formation.

Students' independent evaluation of the form and meaning of words requires understanding various grammatical rules. Simultaneously, students struggle to master Latin vocabulary due to their lack of understanding of the meanings of many words. Research findings indicate that some students are entirely unaware of the meanings of words such as aqueduct, aquarelle, concordat, terrarium, and viaduct, while others lack clear concepts regarding words well-known to many, such as aquarium, aeronaut, declamation, debtor, memorandum, valency, and fabula. Vocabulary richness is undoubtedly directly related to the individual and general preparation level of the student, as well as the quality and level of language instruction.

As an ancient language, Latin reflects the rich heritage of ancient states, science, and culture, and possesses significant aspects regarding the intellectual and cultural development of students:

Additionally, the research on new social-psychological relationships led by V.M. Karimov regarding the intellectual and cultural development of students is also noteworthy. By highlighting the underlying ideas, it is possible to form a clear

understanding of the history, present, and future of the motivation system in Uzbekistan. This is because human relationships play a significant managerial role in behavior, the formation of one's inner world, and all psychological processes.

The Latin language taught in higher medical educational institutions holds great potential for the cultural and intellectual development of students, embodying the concept of "intellectual gymnastics." By mastering grammatical forms and categories, students develop their cognitive processes. Sociological research conducted in Europe and America shows that graduates from specialized gymnasiums in ancient languages have achieved significant success in their professional and social activities.

The study of word formation is significantly reflected in the analysis of borrowed words. In this context, materials in Latin hold particular importance, as analyzing Latin texts not only develops students' intellectual capabilities but also reinforces the understanding of lexical elements in the semantics of modern languages. At the same time, students face challenges in assimilating Latin vocabulary due to not fully understanding the meanings of many words. Research results indicated that some students were completely unaware of the meanings of words such as "aqueduct," "watercolor," "concordat," "terrarium," "viaduct," while others lacked a clear understanding of more commonly known terms such as "aquarium," "aeronaut," "declamation," "debtor," "memorandum," "valency," and "fable." Vocabulary richness is certainly directly related to the individual's overall preparedness level and the quality and level of language education.

As an ancient language, Latin reflects the rich heritage of ancient states, science, and culture, and has significant aspects related to the intellectual and cultural development of students:

Mastery of classical grammatical forms directs thoughts correctly and promotes thinking development.

The difficulty and complexity of language acquisition invite students to engage in active independent research.

The ancient foundations of the Latin language and its essential significance for European culture encourage students to seek information, understand the essence of issues, and foster correct decision-making processes.

Analyzing the forms and meanings of words assists in deepening students' cognitive processes.

Working with Latin-origin terms and comparing them to vocabulary in modern languages provides students with a powerful exercise in analytical reasoning. They begin to identify how meaning travels across time and cultures, and how languages borrow from one another to expand their expressive resources. This comparative exploration shows that Latin has not simply disappeared — its grammatical logic continues to shape the structure and function of international scientific terminology today. In addition to terminology and etymology, the use of Latin as an educational tool encourages mastery of language in multiple communicative formats. Since medicine—and any intellectual profession—requires clear and competent communication, developing verbal skills becomes as important as learning technical knowledge. Careful reading and interpretation of Latin texts train the ability to understand information delivered through spoken language, as these texts are often discussed aloud and clarified collaboratively.

At the same time, written communication benefits from Latin study because students learn to express ideas with precision. Understanding how authors construct texts in another linguistic system helps future specialists improve the

clarity and coherence of their own writing. This supports not just academic success, but also professional communication in medical documentation and patient interaction.

Dialogic speech — the capacity to interpret another person’s viewpoint and respond thoughtfully — is also strengthened when working with Latin. Translating and analysing sentences require constant mental interaction: “What did the author mean?” “How do I convey that meaning correctly?” This mental dialogue builds habits that later transfer into real conversations with colleagues and patients.

Finally, developing monologic speech is crucial for anyone expected to present information publicly or lead discussions. Latin study requires students to summarize texts, explain grammatical choices, or present cultural findings — all of which nurture confidence in constructing well-reasoned, structured oral statements. In my opinion, this is one of the most valuable outcomes: students do not simply accumulate terminology, but learn how to speak convincingly and think clearly.

### **1.3. The state of the theory and practice of intellectual and cultural development of students in the process of teaching the Latin language**

In order to understand how Latin contributes to the intellectual and cultural growth of future medical professionals, it is necessary to first evaluate their starting point. For this purpose, the initial level of students' development should be examined through multiple dimensions:

- reviewing the content and methodological quality of existing Latin and medical terminology teaching materials;
- applying research-based diagnostic tools to identify students' current cognitive and cultural competencies;
- observing how students demonstrate their knowledge and communication skills not only in class but also in extracurricular settings such as academic clubs, scientific discussions, or terminology contests.

Such a multi-layered assessment approach reveals not just what students know, but how they think, how they communicate, and how they relate ethical and cultural values to their professional identity.

In medical higher education institutions, Latin and medical terminology are integrated into a range of bachelor's programs — including nursing, dentistry, pediatrics, general medicine, medical biology, and public health. This broad inclusion reflects the fundamental function of Latin within the medical profession. Rather than treating the subject as an isolated linguistic discipline, curriculum designers anchor it in the essential scientific domains of anatomy, pharmacy, and clinical medicine.

Official educational goals emphasize that students must not only be introduced to foundational anatomical and pharmaceutical terminology, but must also be able to apply this knowledge in real professional scenarios. In my opinion, this reflects a shift from passive memorization to active usage a transformation from simply “learning terms” to actually thinking through the language of medicine. When students understand how terminology is constructed according to grammatical principles, they are better prepared to interpret unfamiliar terms, communicate precisely with colleagues, and avoid clinical errors. Therefore, the teaching of Latin in medical higher education should be viewed as a strategic component of professional formation: it supports scientific literacy, strengthens communication skills, and fosters a deeper engagement with the cultural and ethical heritage behind medical science. A well-designed diagnostic evaluation at the beginning of the course allows educators to tailor instruction so that Latin truly becomes a tool for developing competent, thoughtful, and culturally aware healthcare specialists.

The tasks of the subject include:

Teaching students the correct pronunciation, word forms, and grammatical rules related to anatomical terminology;

Memorizing the Greek variants of body parts in clinical terminology; understanding suffixation, prefixation, finding roots, and methods for making correct diagnoses;

Training on writing prescriptions without grammatical errors, understanding verbs, conditions, commands, and discussing medicinal plants, drugs, acids, salts, oxides, and aphorisms, while revealing the pressing issues of the subject and acquiring practical skills about the place and role of the Latin language in medicine.

In the framework of the subject "Basics of Latin Language and Medical Terminology," during the process of assimilating the subject, students are expected to have an understanding of the basic knowledge of anatomy, proper learning of clinical diagnoses, and correct prescription writing; they should know morphological and syntactic methods regarding anatomical, clinical, and pharmaceutical departments and apply them in practice; they should use methods to analyze anatomical, clinical, and pharmaceutical terminology in practical activities, draw conclusions, gather necessary information for solving problematic situations, explain scientific concepts, and possess skills for making decisions on problematic situations.

The curriculum does not foresee conducting theoretical classes, as the subject is organized within the framework of practical classes. During practical classes, the following issues are studied: introduction to medical terminology; Latin alphabet; vowels and consonants; terminology related to body structure; rules for placing stress; anatomical terms related to body structure and the head; nouns: grammatical categories and word forms; noun declension; bones of the face; adjectives: grammatical categories and word forms; agreement with nouns; anatomical terms related to the oral cavity; classification of complex anatomical terms; terminology related to the respiratory system; noun case endings; respiratory system; degrees of adjectives: comparative degree (related to the cardiovascular system); superlative degree (related to the circulatory system); use of anatomical terms in singular form; noun declension; nominative plural forms (related to the excretory system); accusative plural forms (related to bones).

Head and Modifier Agreement

The use of anatomical terms in plural forms (auditory system); numbers: ordinal and cardinal numbers; word formation; morpheme; suffixation (body structure and skull bone related terms, including those concerning the nape, temple, and forehead); prefixation; clinical terminology; clinical terms related to body structure and face; doublets expressing organs and head parts and their pathological names (head, palate, teeth); creation of clinical terms related to respiration and upper parts; clinical terms (milk and milk-producing organs); tissues, secretions, terms indicating age, and clinical terms representing the oral cavity; clinical terms expressing salivary glands, chewing muscles, and their functions; introduction to pharmacology; dosage forms (related to the respiratory system); structure and form of prescriptions (related to the cardiovascular system); usage (writing) of tablets, candles, and eye films in prescriptions; chemical elements in prescriptions; acids; oxides in prescriptions (related to the urinary system); salts in prescriptions; cations and anions; abbreviations in prescriptions.

A close review of the current instructional resources used for the subject \*Latin Language and Medical Terminology\* in medical universities demonstrates a noticeable imbalance in the educational content. While students receive a solid grounding in terminology, grammatical structures, and professional vocabulary, cultural and civilizational aspects of the Latin world are almost entirely absent from practical lessons. Observations conducted during class hours reveal that references to ancient traditions, values, or historical context are provided only within the framework of independent study tasks, and even in the recommended reading list there is a lack of sources devoted to cultural learning. In my view, this indicates that the subject is still being approached from a narrow linguistic perspective, whereas Latin has the potential to serve as a broader intellectual and cultural bridge in future medical professionals' education. Pedagogical research

underscores that students' intellectual development is not measured merely through accumulated knowledge but through the quality of cognitive actions that help them apply that knowledge in new situations. To obtain reliable information about how learners currently process new material, specialized observational techniques and psychodiagnostic tools were used. These methods made it possible to examine not only what students know, but also how their thinking systems operate while solving unfamiliar academic tasks.

Based on theoretical analyses within the study, several fundamental features of intellectual growth were outlined. These include perseverance in learning, capacity for deep understanding, adaptability of thought, logical organization of ideas, ability to justify conclusions, critical evaluation of information, and breadth of perspective. Each of these abilities forms a distinct indicator of a student's intellectual maturity. For research purposes, every indicator was supplemented with a set of measurable descriptors, making it possible to evaluate performance through targeted testing and structured questionnaires.

The quantitative data obtained from the control group show that students demonstrate relatively strong motivation toward the subject (with a combined high and average level exceeding 60%). They also display a well-formed ability to examine medical-language structures from multiple aspects and produce logical evidence when defending their conclusions. Nevertheless, these results also highlight disparities: some cognitive qualities are more advanced than others, suggesting that instruction has been more successful in developing terminology-related analytical skills than in cultivating broader cultural and integrative thinking.

In my opinion, these findings clearly reveal the need for a more holistic approach to Latin instruction in medical programs. It is not enough to train students to

decode professional vocabulary — their cultural imagination and ethical awareness should also be engaged. Incorporating discussions of ancient medical practices, Roman societal values, and historical roots of biomedical concepts into practical lessons would enrich students’ reasoning, expand their worldview, and strengthen the cultural foundation of their future profession. Only then can Latin become not merely a linguistic tool, but a true catalyst of intellectual and personal development in healthcare education.

Here is the content of the table in the image you provided:

**Table 1.3.1**

**Table 1.3.1: Levels of Intellectual Development of Students During the Process of Learning Latin (Main Stages)**

<b>Criteria</b>	<b>Specification</b>	<b>Control group (respondents number-100 people)</b>			<b>Experience group (respondents number - 100 people)</b>		
		high	middle	low	high	middle	low

Diligence	<ul style="list-style-type: none"> <li>- desire to understand the news;</li> <li>- thing-different phenomena</li> <li>striving to realize</li> </ul>	18	47	35	19	48	33
Terania of the mind	<ul style="list-style-type: none"> <li>- deep penetration of thing-to the essence of events ; - separation of the main idea;</li> <li>- thing-interpenetration between events</li> <li>understanding engagement</li> </ul>	12	39	49	18	43	39
Flexibility and flexibility of the opinion	<ul style="list-style-type: none"> <li>-be able to use from existing knowledge and experience;</li> <li>-quick use of objects get in a new situation and relationship ;</li> </ul>	12	38	50	10	37	53

- overcoming stereotypes						
Opinion Logic -firmness of associations; - everyone of the object -in-sided analysis undergoing object	19	63	19	17	68	15
Proof of opinion -ability of use evidence and laws confirming opinions and conclusions; - interpretation of ideas, views, thoughts	20	60	20	17	66	17
Criticality of the opinion - strict assessment results of thought activities; - give up prejudices and	10	45	45	13	45	42

conclusions disclaimer, fix						
Scope of thought -ability to provide comprehensive coverage of each of the objects of thought activity; - being able to make alternative decisions	12	49	39	14	43	43

Let me know if you'd like any further details or clarification!

In the experimental group, interest in learning (high level – 19%; medium level – 48%), deep understanding of the essence of things and events, distinguishing the main idea, and understanding the interrelationship between things and events (high level – 18%; medium level – 43%) showed high results.

In both groups, flexibility and adaptability of thinking – the ability to utilize existing knowledge and experience, to quickly adapt to new situations and relationships, and to overcome emerging difficulties (in the control group – 50% low level, in the experimental group – 53% low level); critical thinking – strictly evaluating the outcomes of cognitive activities, rejecting incorrect thoughts and conclusions, and making corrections (in the control group – 45% low level, in the

experimental group – 45% low level); and breadth of thinking – the ability to comprehensively cover the object of cognitive activity and make alternative decisions (in the control group – 49% low level, in the experimental group – 43% low level) were relatively underdeveloped intellectual qualities.

Furthermore, during the experiment, the students' level of cultural development was analyzed as the process of mastering the culture related to the civilization of the language being studied (Table 1.3.2). The results showed that in both the control and experimental groups, students' knowledge, skills, and abilities regarding ancient culture were not sufficiently formed. Both groups of respondents demonstrated relatively high levels of knowledge of ancient Greek and Roman culture and the ability to apply Latin in practical activities in relation to other subjects and fields. The lowest indicators were clearly observed in criteria related to cultural artifacts, philosophical and literary works, mythology, and rituals (in the control group – 57% to 73% low level; in the experimental group – 58% to 69% low level).

**Table 1.3.2**

**Table 1.3.2: The degree of formation of students' knowledge, skills, and abilities regarding ancient culture (basic experiment)**

<b>Criteria</b>	<b>Control group (respondents number-100 people)</b>	<b>Experience group (respondents number - 100 people)</b>
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	high	middle	high	middle	high	middle
Artifacts, possession of information about artifacts of antiquity	-	70	70	-	67	33
Tradition in ancient Greece and Rome- knowing the peculiarities of habits	-	64	36	2	62	36
Awareness from works created in antiquity:  - about myths, gods, heroes;  - about authors, literary works;  - about	7	73	20	4	69	27

architecture, haikaltaroshlik;  - archaeological of cultural monuments  about their findings	7  5  7	67  55  57	36  40  36	9  9  7	60  58  62	31  33  31
Other disciplines, with other areas  related ancient Greco-Roman world  information about its culture  degree of possession and ability to use Latin	15	58	27	13	56	31
Comparative analysis with	8	77	15	11	68	21

Greco-Roman culture						
To be able to use from knowledge about antiquity culture in the world of various tamadduns	9	74	17	9	75	16

Based on the evaluation of extracurricular activities in Latin language teaching at medical higher education institutions, the following points were identified:

- 1.Extracurricular academic formats such as student research sessions, thematic competitions, optional learning modules, and scientific initiatives contribute to expanding students’ professional interests and motivation toward the subject.
- 2.Engagement through publication activities allows students to develop writing skills, work with sources, and demonstrate their intellectual potential by preparing articles suitable for student journals or university bulletins.
- 3.In many cases, opportunities for extracurricular participation are not announced early enough, causing students to miss events or fail to prepare adequately.

4.The presentation culture among students remains underdeveloped — learners often experience difficulties in structuring academic content, using visual materials, and maintaining confident public speaking skills.

5.Limited involvement of expert mentors restricts students’ ability to receive professional feedback, exchange ideas, and observe authentic scientific communication practices.

6. Extracurricular events frequently do not cover wider collaboration with other faculties or external organizations, reducing students’ exposure to interdisciplinary knowledge and authentic medical-linguistic interaction.

These approaches to studying Latin and the intellectual-cultural development of students in medical universities allow for precise determination of the number of cultural objects related to cultural studies in each session, systematic management of the educational process, and successful assimilation of cultural elements related to the foreign language by students.

The research results identified the following directions that allow for fully realizing the linguistic and cultural studies potential of the “Latin Language” subject:

1. Extensive use of cultural materials at all levels of language learning, including lexicology, terminology, and the study of aphorisms.

2. 2. It is advisable to present cultural information in the form of concepts and realities. The content of the topics being studied should reflect medical and general cultural realities.

3. Working with texts should be carried out using methods such as filling thematic tables, independently clarifying realities in new texts, comparative analysis, identifying and analyzing key words.

4. The process of working with cultural realities independently chosen by students should be organized in a gradual manner.
5. Students' independent work should be organized based on working with books and completing individual and intellectual-cognitive tasks in class.

## **Chapter II: The Didactic System of Intellectual-Cultural Development of Students in the Process of Teaching Latin**

### **2.1. Linguo-Cultural Opportunities in Teaching the Subject “Latin Language”**

Language functions as a cultural mirror, revealing not only the surrounding reality in which people live but also the inner spiritual world of a society: its national identity, patterns of behavior, traditions, and collective system of values. Through language, a community expresses how it thinks, how it understands the world, and how it relates to others. At the same time, language is a unique archive where the cultural memory of a nation is preserved. Its vocabulary, grammatical structures, idioms, folklore, artistic works, and scientific texts are all carriers of cultural knowledge accumulated over centuries. Both oral and written forms of speech store countless layers of history, way of life, and creativity passed down from generation to generation.

As the main medium of cultural transmission, language ensures the continuity of national heritage. By learning their native language, children also absorb the worldview and social experience formed by their ancestors. Thus, each speaker participates in maintaining and renewing cultural identity. Language is also a means by which culture influences human development. Individual thinking, moral perception, and social behavior are shaped through linguistic interaction. For this reason, language and culture represent an inseparable unity: culture gives substance to language, while language enables culture to live, evolve, and expand. Although language is an essential component of culture, it simultaneously stands beside culture as its expressive system shaping ideas, connecting people, and constructing the shared meanings that define social existence.

When considering language in terms of its structure, functions, and acquisition, it becomes a component of social strata or culture. At the same time, the component of culture is not merely cultural information conveyed through language; it is an inseparable characteristic inherent in all levels of language. Language is a powerful social tool that transforms the flow of people into a nation, shaping a community's self-awareness, culture, and traditions, allowing them to be preserved and passed down.

“Language occupies the first place among the national components of culture. Language primarily facilitates human society's communication and serves as a means of interrupting this communication. Language shows that its speakers belong to a particular community. Language, as a fundamental characteristic of a nation, can be approached from both “internal” and “external” perspectives. When approached from the “internal” perspective, it manifests as a primary factor of ethnic integration, while from the “external” perspective, it illustrates the ethnic differences of the people. This dialectically unifying language serves as a means for a nation to preserve itself on one hand and to differentiate between “its own” and “the other” on the other hand.”

In recent years, the issues of language and culture have begun to be thoroughly studied within the field of linguocultural studies. According to V.V. Vorobyev, “currently, linguocultural studies can be characterized as a new philological discipline that studies a collection of selected cultural values, the dynamic communicative processes in creating and perceiving discourse, the linguistic personality's experiences, and the national mentality, systematically providing a linguistic representation of the world view and ensuring the fulfillment of educational, developmental, and intellectual objectives.”

In linguistics, theoretical paradigms are not replaced by one another but continue to function side by side, each offering a distinct perspective on the study of language. Scholars traditionally distinguish three major paradigms: the comparative-historical, the systemic-structural, and the anthropocentric. The earliest scientific approach to language was the comparative-historical paradigm, which aimed to explore the evolution of languages by identifying common origins and structural similarities. With the development of science, the focus later shifted to the systemic-structural paradigm, which views language as a network of interrelated units and places the word at the center of investigation. Although new approaches have emerged, this paradigm still remains influential-many grammars, textbooks, and fundamental linguistic studies continue to be based on its principles, providing a reliable foundation for both current and future research. The anthropocentric paradigm represents a further transformation in linguistic thought, redirecting attention from language as an abstract system to language as a property of the human mind. It emphasizes that language exists through the cognitive, emotional, and psychological experience of its speakers and therefore must be studied in relation to human consciousness and communication. Modern branches such as linguistic semantics, cognitive linguistics, psycholinguistics, pragmatics, and linguoculturology are all shaped by this human-centered orientation.

The main focus of linguoculturology is on cultural evidence that is explained in language;

Linguoculturology belongs to the sciences of linguistics, and therefore its research results can be practically applied in the process of teaching the native and foreign languages;

The main directions of linguoculturology research include: a) the linguistic personality; b) the semiotic embodiment system of cultural values.

Within this wide set of concepts, some play a key role in encoding culture through language for instance, cultural sema, cultural background, cultural connotation, and cultural concept. A cultural sema refers to minimal semantic features that signal cultural meaning embedded inside linguistic units. Examples from Uzbek culture demonstrate how such elements function: plov conceptualizes a national food ritual involving rice, carrots, meat, onion, and oil; duppi symbolizes identity through a traditional handcrafted hat; uchok reflects everyday domestic experience through a hearth used for cooking. Each of these carries cultural meaning exceeding its material description.

Cultural background refers to the wider socio-historical knowledge behind a word or phraseological unit information tied to collective memory. Concepts of this type have been widely examined in the field of linguocountry studies. Meanwhile, a cultural concept captures abstract ideas that structure a community's worldview, linking linguistic signs to the deeper layers of cultural meaning.

Cultural heritage includes knowledge, practices, values, and artifacts considered essential for cultural continuity. Cultural traditions embody socially approved patterns of behavior preserved through generations. The term cultural process highlights the dynamic interaction of phenomena that shape cultural identity. Cultural space denotes the representational field in which cultural meanings exist in the minds of speakers for example, the Uzbek cultural space or the English cultural space. Because cultural space is rooted in shared cognition, it constantly intersects with both individual and collective cognitive domains.

A linguocultural paradigm is understood as a system of linguistic forms through which ethnically, socially, and historically shaped meanings are expressed. In this paradigm, language is not simply a medium of communication—it becomes the structural foundation for expressing the cultural experience of society. Cultural tradition, in turn, reflects socially internalized forms of collective experience that reappear and renew themselves in the life of a community.

The notion of a cultural fund refers to a collective reservoir of knowledge held by members of a culture about themselves and the world around them. This information does not belong to one individual—it represents the essential minimum shared within a cultural group. Mentality expresses national identity through features of thinking, emotional attitudes, and willpower reflected in the categories and forms of a native language. A.Ya. Gurevich emphasizes that mentality is a unique mode of perceiving reality: it is neither scientific nor philosophical doctrine, but the lived intellectual-emotional orientation of a people. In linguistics, authors such as Y.D. Apresyan, E.S. Yakovleva, and O.A. Korinov characterize mentality as deep cognitive structures influenced by cultural, social, geographical, and linguistic factors. Thus, mentality encompasses traditions, rituals, moral behavior, beliefs, and even superstitions that shape the identity of a specific society or nation. The language of culture refers to the semiotic system through which cultural meanings—concepts, symbols, values, and shared images—are formed, transmitted, and renewed. Finally, the term subculture designates a culturally distinct layer within the wider society, such as youth culture, which has its own linguistic specifics yet remains connected to the national culture.

In Russian linguistics, the concept of "concept" was introduced into scientific circulation by philosopher S. Askol'dov in the first half of the 20th century. According to Askol'dov, representatives of different nations engage in

communication through concepts, and thus the creation and comprehension of concepts is a bilateral communicative process. Such a system existing in the linguistic space marks the uniqueness of the global national landscape. Critical approaches to reflections on the concept emerged in the first half of the 20th century. However, only in the 1980s did the need for this term resurface. Y.S. Stepanov attempts to reveal the essence of mental formation and refers to the etymology of the word concept. The word "concept" is derived from the Latin word "conceptus," meaning "notion." The concept has a bilateral nature: on one hand, it enters into a person's mental world as a cultural concept, while on the other, a person enters into culture through the concept, sometimes influencing it. While preserving their individual, unique culture, a person refers to the cultures of nations and the mental worlds of representatives of different ethnicities through concepts.

The interpretation of the concept in cognitive linguistics, linguoculturology, and literary studies differs from each other. This term was used synonymously with the word "notion" in linguistics until the 1980s, but today we can see that its interpretation has expanded in comparison to the term "notion." Thus, N.Yu. Shvedova emphasizes that the concept is a notion that represents important material, intellectual, and spiritual aspects of human life, which has historical roots and reflects the collective experience of the people.

Thus, the concept is considered one of the most actively used units in linguoculturology. As a linguocultural unit, the concept expresses unique aspects of a particular nation's culture. For example, the concept of "home" is associated in the minds of Uzbek people as follows: a) living space – building – multi-storey house – yard – apartment – family; b) big, small, beautiful, cozy, bright, new, old; c) a home of kindness, a rest home, a cultural home. It generates metaphorical meanings: "home" refers to "family members," "to demolish one's home" signifies

"the separation of a husband and wife," and "to burn one's home" means "to be left homeless." A linguocultural concept is the main unit of culture that transmits information with functional significance regarding being and ethnic characteristics.

It is advisable to define concept and reality as system-forming components for the transmission of linguocountry studies materials in lessons, based on the features of the "Latin Language" subject, its terminological content, and its culturally significant specific features. In this approach, the concept is considered as a large unit of material (topic, broad concept), and reality is considered as its more specific and separate manifestation (specific concept, word).

This approach is consistent with the pedagogical principles of consistency and step-by-step development, and it gives the teacher the opportunity to freely systematize and change the level of complexity, depending on the learning material, its volume, the objectives of the lesson, and the capabilities of the students (Figure 2.2.1).

### Cultural Universals and Linguistic-Cultural Concepts

Linguistic-cultural concepts embody cultural universals. They exist within the realm of thought, combining cognitive-rational and emotional-psychological meanings. These concepts act as models of worldview for all language speakers, influencing the formation of national character as a cultural tool.

### Exploring Cultural Concepts in Linguistic-Cultural Studies

The study of cultural concepts holds significant importance in linguistic-cultural studies. These concepts, represented by abstract nouns, play a crucial role in collective language consciousness. Examples include conscience, destiny, fate, will, sin, law, freedom, intellectuals, and homeland.

## Cultural Specificity and Concept Variation

Analyzing concepts reveals that every language possesses numerous culturally specific concepts. For instance, the concept of "potato" holds different meanings across cultures:

For Russians, it represents a symbol of basic sustenance, as seen in the idiom "sit on potatoes."

For Belarusians, it's a traditional national dish, considered a "second bread" and an essential food source.

Similarly, the concept of "bread" signifies an important food symbol for Uzbeks, but it lacks the same significance for Koreans, Japanese, and Chinese people, for whom rice holds the primary food symbol position.

## Concepts as Mental Representations of Reality

Concepts embody mental essences that have specific names in language, reflecting a person's cultural-national understanding of reality. These concepts differ across languages due to the varying cultural-national perspectives on existence.

More important concepts (categories of culture) include: space, time, date, truth and justice, friendship, enmity, love, hatred, joy, and sorrow.

## Realities as Objects of Linguocountry Studies

Realities, as a key element of linguocountry studies, represent tangible elements related to the life, culture, history, heroes, traditions, and customs of the country whose language is being studied. The word "reality" itself originates from a Latin adjective, evolving into a noun through influence from similar Russian lexical categories.

Linguistic sciences offer two definitions of reality:

**Reality as a Cultural Phenomenon:** This definition refers to the life, way of life, and concepts specific to a nation's culture, unique and not found in other cultures.

**Reality as a Lexical Element:** This definition refers to words, phrases (like idioms, proverbs, sayings), and concepts that denote specific aspects of a nation's culture or lifestyle.

### The Interconnection of Language and Reality

The close relationship between language and culture is particularly evident in realities. New realities emerge within a language due to changes in the material and moral life of a society. This connection allows for a more precise determination of when new realities emerge, as vocabulary reflects societal shifts.

### The Role of Realities in Translation and Linguocountry Studies

Realities stand out as unique entities within the fields of translation and linguocountry studies.

On the one hand, realities mirror the state, economic, geographical, and cultural lifestyle of a country, giving them significant weight.

On the other hand, realities are words that represent objects specific to one nation's way of life and completely foreign to another. This creates challenges in translation, forcing translators to rely on broad definitions or create new words and phrases.

### Classifying Realities in Linguistics

Linguistics recognizes various classifications of realities:

Realities as Proper Nouns: These are specific names of individuals, places, or things.

Realities based on Local Historical Context: These realities are influenced by the specific historical circumstances and traditions of a region.

General National Realities: These realities are widespread throughout a particular nation's culture and society.

### Comparing Concepts and Realities

Concepts and realities are often compared in terms of general versus specific and invariant versus variant:

Concept: A global semantic unit, encompassing multiple meanings.

Reality: A specific event or expression.

This overview emphasizes the interplay between linguistic-cultural concepts, realities, and the broader context of language and culture in understanding the world. Okay, here's the translation:

### The Meaning of Latin Phrases and Their Application in Learning

The phrases "tabula rasa" ("blank slate"), "dues ex machina" ("god from the machine"), "divide et impera" ("divide and rule"), "veni, vidi, vici" ("I came, I saw, I conquered"), "scio me nihil scire" ("I know that I know nothing"), and others hold significant meaning, reflecting the historical, cultural, and linguistic nuances of the Latin language.

\* *Tabula Rasa*: This phrase represents the concept of a mind devoid of prior knowledge, ready to be filled with new information, often used in the context of education and philosophy.

\* *Deus Ex Machina*: This phrase originates from Greek theatre, referring to a god appearing on stage to resolve a conflict. It is a device used in storytelling to introduce a sudden, unexpected solution.

\* *Divide et Impera*: This phrase refers to the Roman empire's policy of dividing and conquering conquered territories, often used to describe political strategies based on weakening opponents.

\* *Veni, Vidi, Vici*: These words, famously uttered by Julius Caesar after his victory over King Pharnaces of Pontus, represent a concise statement of military success and dominance.

\* *Scio Me Nihil Scire*: This is a cornerstone of Socratic philosophy, emphasizing the importance of recognizing one's own limitations and embracing continuous learning.

### Organizing the Text-Based Learning Process for Students

Based on these levels, it is advisable to organize the process of working with texts for students in the following way:

1. Selection of text materials: Choose texts that are relevant to the course, interesting to students, and appropriate for their level of Latin proficiency.

2. Analysis of realities in the texts: Students should be encouraged to identify and analyze realities in the texts, paying attention to their cultural significance and historical context.

3. Independent explanation of new realities: Students should be encouraged to independently explain new realities that they encounter in the texts. This helps to develop their analytical skills and understanding of ancient Roman culture.
4. Memorizing wise sayings (aphorisms): Memorizing wise sayings (aphorisms) helps to develop students' vocabulary, improve their understanding of the Latin language, and introduce them to the cultural wisdom of ancient Rome.
5. Reading and translating the original text: Students should be given opportunities to read and translate the original Latin texts. This helps to improve their reading comprehension and translation skills.
6. Comparative analysis of ancient and national cultures: Students should be encouraged to compare ancient Roman culture with their own national culture from both cultural and linguistic perspectives. This helps to broaden their understanding of different cultures and to develop their critical thinking skills.

#### Enhancing Intellectual and Cultural Qualities through Each Level

The inclusion of cultural studies materials in the Latin learning process, at each of the levels mentioned above, contributes to the development of intellectual and cultural qualities in students. By engaging with the history, philosophy, and literature of ancient Rome through the lens of the Latin language, students gain a deeper understanding of the complexities of human civilization and develop their critical thinking and analytical skills.

## **2.2. Technology for Cultural-Intellectual Development of Students Through Working with Latin Texts**

The subject "Latin Language and Medical Terminology" plays a vital role in the cultural-intellectual development of students at medical universities. Successfully mastering this subject allows for the effective use of medical terms in professional practice. In turn, wise sayings in Latin contribute to the development of students' scientific outlook and intellect. For example, some well-known proverbs and sayings include:

Fortes fortuna juvat - "Fortune favors the brave."

Non progredi est regredi - "Not to advance is to go backward."

Omnia mea mecum porto - "I carry all my possessions with me."

Festina lente - "Hasten slowly."

Many Latin aphorisms, wise sayings, and proverbs are related to issues of life and death, human health, and the physician's conduct. Among them, a significant number pertain to medical deontology (from the Greek deon, deonios - "necessary" + logos - "doctrine"). For instance:

Solus aegroti suprema lex medkorum - "The well-being of the patient is the supreme law of the physician."

Primum noli nocere! - "First, do no harm!" (The physician's primary commandment)

Through working with Latin texts, students acquire knowledge and understanding of numerous terms related to institutions, faculties, rector, dean, professor, doctor, associate professor, assistant, postgraduate student, laboratory assistant, preparator,

student, dissertation candidate, auditorium, communication, credit, discrediting, decree, credo, course, mentor, management, slanderer, ordinary soldier (cadet), guidance, competitor, competition, travel, traveler, degree, gradation, degradation, additives (ingredients), aggression, congress, development, regression, jurist, legal advisor, advice, intellect, intellectual, colleague, board, collection, petition, appetite, competence, initial preparation, tutor, conservator, conservatory, preservation, observatory, reserve, reserve, reservoir, valence, valerian, currency, devaluation, disabled person, leadership, equivalent, sculpture, monument, ornament, style, description.

Working with Latin texts plays an important role in strengthening students' professional competence because it encourages analytical thinking, comparison of cultural information, and interpretation of historical contexts. To achieve higher effectiveness in this process, the integration of linguistic-cultural content should be applied consistently throughout all stages of Latin instruction. This integration may be organized through a step-by-step, algorithmic approach.

## I. Inclusion of linguocultural information within all phases of Latin learning

Such integration can be carried out at different levels of linguistic structure:

### I. Lexical Level

Exploring the meanings and origins of individual words supports the development of critical and associative thinking. For example, recognition that pecunia ("money") is historically derived from pecus ("cattle") reveals the evolution of early economic relations, when livestock served as the main measure of wealth. Thus, vocabulary becomes a source of cultural and historical insight.

### II. Terminological Level

During language acquisition, students encounter vocabulary that reflects multiple aspects of ancient Roman civilization. Through these terms, they gain knowledge about political structure, legal systems, religious beliefs, artistic achievements, everyday life, and scientific understanding of the ancient world.

Through these terminological units, learners not only memorize vocabulary but also access the cultural worldview of ancient Rome—its social relations, legal order, intellectual achievements, and daily practices. As a result, Latin becomes a meaningful bridge connecting linguistic knowledge with cultural and historical awareness.

### III. Familiarization and Analysis of Wise Sayings.

Wise sayings are linked to specific historical events. By interpreting them, students engage with cultural life. For example, *tabularasa* ("clean board") represents a metaphor for the process of erasing prior knowledge and starting anew, often used in the context of philosophical inquiry.

Each of these levels, incorporated into the study of Latin, contributes to the development of intellectual-cultural qualities in students. Okay, here's a translation of the text you provided:

Local-Modular Technology for Cultural-Intellectual Development of Students in the Process of Learning Latin

#Levels and Intellectual-Cultural Activities

Lexical Level

- Development of comparison skills
- Enrichment of imagery

- Expansion of vocabulary
- Understanding the oral meaning
- Establishing logical connections between word formation in Latin and other languages
- Understanding the connection between a word, culture, and the life of the country whose language is being studied

#### Terminological Level

- Highlighting new meanings of previously known words
- Understanding the polysemy of individual words and phrases
- Expanding the ability to freely understand scientific terminology, and gaining a deeper understanding of foreign cultural terminology

#### Aphoristic Level

- Developing memory through the explanation of wise sayings, memorization of proverbs and sayings
- Understanding the cultural element of the Latin language through the analysis of its historical, worldview, moral, legal, socio-political, and aesthetic meanings

#### Taxonomy for Organizing Topics

A taxonomy can be used for grouping topics (Table 2.2.2).

Table 2.2.2. Taxonomy for Systematizing Learning Materials with Intellectual-Cultural Characteristics

| Topic Name | Learning Units |

|---|---|

| Nature and Cities of Ancient Rome and Greece | Country, Geographical Location, Population, Capital, Main Cities |

| Legends of Ancient Greece | Legend Name, Legend Heroes, Plot, Idea, Artifacts |

Working with Latin texts can be strengthened by applying a structured approach that distinguishes between a key conceptual idea and its culturally or historically grounded manifestations. In this model, the concept functions as a central theme, while realities represent specific factual elements that illustrate and expand this theme. By following such an algorithm, learners are able to connect linguistic units with historical knowledge and professional content.

## **Chapter 3: Effectiveness of Cultural-Intellectual Development of Students in the Process of Teaching Latin**

### **3.1 The Intellectual-Cultural System of Teaching Latin in the Classroom**

Extracurricular activities play a significant role in the intellectual-cultural development of students at medical universities. During the research process, it was concluded that extracurricular activities, particularly intellectual games, educational projects, and independent work, have a high level of effectiveness.

1. Intellectual Games. Intellectual games have great potential in the cultural and cognitive-creative development of students at medical universities. They meet modern requirements for the selection of teaching methods, including serving to enhance the cognitive activity of students. The development of students' thinking and practical activities during the learning process is an essential factor in enhancing the effectiveness of learning materials.

An intellectual game is a teaching method focused on performing tasks individually or in teams that require effective thinking under specific time constraints and competitive conditions. Intellectual games develop theoretical thinking in students by prompting them to form concepts about the realities being studied and requiring the execution of essential thinking operations (classification, analysis, generalization).

When conducting intellectual games, it is necessary to adhere to the following principles:

\* Adjusting the level of complexity to the student's cognitive abilities: Gradually increasing the difficulty of tasks.

- \* Incorporating comparative, contrasting, and generalizing operations into the content of the game to promote the development of students' analytical abilities.
- \* Providing opportunities for students to apply acquired knowledge in new situations.
- \* Ensuring that tasks are connected to students' interests and personal experiences.

The research process highlights the need to utilize intellectual games that promote national awareness and the development of cognitive activity for the intellectual-cultural development of students. It was concluded that in medical universities, it is necessary to organize intellectual games such as "Parts of Speech," "Continue the Sentence," "Working with a Picture," "Where does the Sentence Come From?," and "Speaking Different Languages" during extracurricular activities for the study of Latin.

For example, the "Working with a Picture" game can be used in the following way to organize students' independent creative activities for the study of the "National Awareness" section of the subject "Latin Language." Participants are divided into two groups and receive a task to create a story based on the reality depicted in the picture. During this process, it is possible to use images related to the lifestyle and culture of people in the ancient world. The process of creating the story requires the use of words suggested by the other group. One group can offer words belonging to the noun category, while the other group can present adjectives. During the game, students' logical thinking and speech are developed.

Here is the translation of the text you provided, paying attention to grammar and clarity:

## 2. Educational Projects

An educational project is a set of purposeful actions undertaken by students to solve a problem, resulting in a tangible product designed for a specific user and aimed at achieving a defined goal.

Educational project-based learning is implemented in three stages:

1. Preparatory Stage: This stage takes place in the classroom and includes two phases: project initiation and project planning and organization.

\* Project Initiation: During this phase, students:

\* Adapt to the situation.

\* Understand the problem (comprehend the problem and recognize its relevance and significance to a specific area of practical activity).

\* Accept, clarify, and specify the project's goals, as well as the tasks related to solving the problem.

\* Understand the project's outcome (product) and its presentation formats.

\* Define the nature of communication with other project participants and the instructor.

\* Project Planning and Organization:

\* Students form groups.

\* They divide project tasks and assign them among group members.

\* They develop a work plan for project implementation.

\* They select optimal methods and resources for project execution.

\* They determine the methods and formats for presenting the results.

- \* They discuss the project manager, reporting requirements, and assessment criteria for the project.

2. Project Implementation Stage: This stage takes place outside the classroom, where students actively and independently work on their assigned tasks:

- \* They gather, analyze, and synthesize information from various sources.

- \* They conduct research and analyze the results.

- \* They consult with each other as needed.

- \* They discuss interim results.

- \* They hold a general meeting for the collection and discussion of all gathered results.

3. Final Stage: This stage is also held in the classroom and involves project presentations, assessment of student work and project activity, and project activity reflection:

- \* Project Presentation: During the presentation, students highlight:

- \* Their understanding of the problem, goals, and tasks.

- \* Their knowledge of planning and implementation.

- \* An analysis of the problem-solving process.

- \* They engage in peer assessments of projects and presentations.
  
- \* Reflection: Students engage in self-reflection on their activities and results:
  - \* They identify their achievements during the project and at its conclusion.
  - \* They analyze any mistakes made.
  - \* They demonstrate their understanding of their personal growth.
  
- \* Project Reporting: Students submit reports on their project activities.

#### “Virtual Travel” Educational Project

This educational project was conducted based on the following stages:

##### I. Preparatory Stage:

- \* The location and time of the virtual travel were announced.
- \* A list of students who expressed interest in participating was compiled.
- \* The travel route and topics were selected.
- \* The tasks and roles of the virtual travel participants were assigned.
- \* Information about resources for conducting the virtual travel was provided, including textbooks, historical, scientific, and literary works, internet sites, and virtual museums.

##### II. Organizational Stage:

- \* Materials related to linguistics (words, phrases, wise sayings) and historical-cultural aspects (heroes, achievements, geographical locations) were selected.

- \* A "map" for the virtual travel was prepared.

- \* The forms of travel (oral excursion, slideshow presentation, poetry evening, stage performance, quiz) and means of transportation (ship, car, horse, airplane, walking) were chosen.

- \* A brief guide was developed.

### III. Practical Stage:

- \* Students created newsletters and newspapers based on the virtual travel materials.

- \* The thoughts, reflections, and impressions of both travelers and spectators were analyzed.

- \* Spectator students filled out "Review Books" and "New Ideas Diaries."

### IV. Evaluation Stage:

- \* The results of the conducted virtual travel were analyzed.

- \* Mistakes made were identified, and ways to correct them were indicated.

## ## 3. Independent Work

There is no single opinion on the concept and meaning of “independent work” in educational practice. Based on personal pedagogical experience and analysis of pedagogical perspectives on this issue, it was concluded that the foundation of independent work, as a form of creative activity for students, lies in the idea of “independence, the need and understanding of independent thinking, the ability to adapt to new situations, the ability to identify questions, problems, and tasks, and

to seek solutions.” This understanding, in turn, allows independent work to become a creative activity.

Independent mental activity, aimed at developing students' intellectual abilities, requires separate study of factors influencing the algorithm for working with books, completing homework, performing independent work, the quality of independent work, and the forms of organizing students' activities.

### I. Working with Books:

First-year students who lack experience in higher education often have limited opportunities to find effective forms of organizing mental work that ensure the efficiency and quality of independent work. Therefore, it is advisable to use contextual learning technologies aimed at in-depth work with large and complex learning materials in higher education.

### II. Completing Homework:

For first-year students, knowing how to use time resources correctly and efficiently is a priority. Students should develop a well-thought-out schedule for working on each subject. Two approaches to allocating time for classes can be implemented:

\* First approach: The independent work schedule is created based on lectures and practical classes, meaning that independent work is conducted as preparation for the next session. In this case, the workload may be unevenly distributed.

\* Second approach: The workload is evenly distributed across the days of the week.

### ## III. Algorithm for Independent Work

The algorithm for independent work involves developing and completing tasks with varying levels of difficulty: simple, moderate and complex.

#### ## IV. Algorithm for Intellectual-Creative Tasks

Solving intellectual-creative tasks encompasses the following steps:

- \* Defining the tasks to be solved.
- \* Understanding the unknown element that needs to be searched for, comprehended, and identified.
- \* Analyzing information.
- \* Comparing data.
- \* Testing hypotheses in practice.
- \* Searching for new hypotheses in case of negative results indicating errors.

#### ## V. Factors Influencing the Quality of Independent Work

Factors that can influence the quality of independent work include:

- \* Instructor involvement and guidance: Active participation and guidance from the instructor, especially for students with lower levels of assimilation and insufficient independent work skills.
- \* Instructor clarification: Providing explanations for more complex problems by the instructor.
- \* Instruction on the procedure for completing independent work assignments: Specifying the topic (problem), the required volume, and the learning approach for the task.

- \* Monitoring: Monitoring student progress by the instructor.
- \* Corrections: Making corrections to the methods and results used by students in independent work.
- \* Use of various control methods:
  - \* Having students complete cards with tasks of varying complexity.
  - \* Involving students who have mastered the material well in checking the work of other learners.
  - \* Having students independently explain a particular material.

The effectiveness of students' intellectual-cultural development was further enhanced through:

- \* 2) Employing effective technologies in philological education: This refers to utilizing innovative teaching methods and tools specific to language learning.
- \* 3) Optimizing the time spent on experimental work: Ensuring that the time dedicated to practical tasks is used productively and efficiently.
- \* 4) Predicting the expected outcome: Anticipating the desired results of the educational program.
- \* 5) Achieving clear results: Setting measurable goals and ensuring that specific objectives are met.

### **3.2 Key Stages of Cultural-Intellectual Development of Students in Latin Language Teaching**

Cultural-intellectual development within Latin language instruction in medical higher education is not an automatically occurring process it is a gradual and pedagogically regulated transformation of the student's worldview, professional thinking, and communicative competencies. The teaching of Latin, due to its deep historical and scientific roots, creates a unique educational environment in which learners gradually transition from basic linguistic awareness to a higher level of intellectual autonomy and cultural maturity. This development can be explained through several sequential and interconnected stages.

At the first stage, students form initial motivation and cultural curiosity. Here, the main task of the educator is to awaken a sense of relevance: learners must understand that Latin is not a “dead language,” but a significant foundation of modern medical terminology and a carrier of ancient medical culture. Educators demonstrate how the achievements of Hippocrates, Galen, Celsus, and other ancient physicians live on in present-day clinical practice, pharmaceuticals, and anatomical nomenclature. As a result, students begin to recognize Latin not only as a subject of study, but as a key component of their future professional identity.

The second stage emphasizes linguistic-analytical comprehension. Learners study pronunciation, basic grammar, and word-formation. While practicing vocabulary acquisition, they also explore the origins of words, discovering that meanings are shaped by the cultural circumstances of ancient societies. Analysis of terms such as *cor*, *pulmo*, *os*, *ventriculus*, *arteria* stimulates logical thinking, attentive observation, and structural reasoning. At this stage, the cognitive mechanisms required for clinical problem-solving are indirectly enhanced through language. Advancing to the third stage, students gradually transition to cultural-

semantic expansion. Here, educational content introduces historical medical texts, Latin aphorisms, and elements of ancient medical philosophy. Students interpret how religious rituals, hygiene practices, ethics, and the philosophy of health in Ancient Greece and Rome shaped treatment approaches. They learn why certain diseases were associated with gods, why public health was valued in Rome, and how philosophical views on the human body influenced diagnostic approaches. This stage contributes to the development of intercultural competence, helping students understand diversity in medical knowledge systems.

The fourth stage involves cognitive-practical application. Students begin to independently use Latin terminology in simulated professional contexts: medical prescriptions, anatomical labeling, decoding case histories, and writing short scientific comments. They learn to differentiate subtle meanings in terms, understand root-affix relationships (e.g., hyper-, hypo-, anti-, -itis, -osis), and correctly interpret terminology in practical assignments. The implementation of these language skills improves clinical thinking and the ability to communicate accurately in a scientific environment.

They meet modern requirements for choosing teaching methods, including serving as a means to accelerate students' learning and cognitive activities. The ability of learners to think critically and engage in practical activities is a crucial factor in enhancing the effectiveness of mastering the learning material.

The research process highlights the need to utilize intellectual games that promote both country studies and cognitive activities for the intellectual-cultural development of students. It was concluded that it is necessary to organize intellectual games such as "Parts of Speech", "Continue the Sentence", "Working with Images", "Where did the Sentence Come From?", and "We Speak Different

Languages" during the club activities related to Latin language learning at medical universities.

In accordance with the set goal, the following tasks were successfully accomplished:

Identifying the use of pedagogical innovations in student training through questionnaires.

Studying the use of effective technologies of philological education in the process of teaching Latin.

Achieving the development of skills and abilities in scientific research among future specialists as an important factor in their intellectual-cultural development.

Ensuring the link between the educational process of intellectual-cultural development and real practical activities based on the implementation of project teaching technologies.

Fostering a sustainable interest in knowledge acquisition among students through the utilization of educational portfolio opportunities.

The organization of practical research based on specific goals and objectives, corresponding to those goals, led to the following results:

- 1) Specificity of experimental research: The experimental research had a clear focus.
2. Determining the Use of Pedagogical Innovations in the Preparation of Students through Questionnaire Surveys.
3. Investigating the Use of Effective Technologies of Philological Education in the Process of Teaching Latin.

#### 4.. Developing Sustainable Learning Interests in Students through the Use of Learning Portfolio Opportunities.

The organization of practical experimental work based on specific goals and assigned tasks led to the following conditions:

- 1) A clear direction for experimental research.
- 2) The use of effective technologies of philological education.
- 3) Efficient use of time spent conducting experimental research.
- 4) Predicting the expected result in advance.
- 5) Achieving a specific result.

The successful conduct of the educational process was ensured due to the presence of the following objective and subjective factors:

- 1) The creation of methodological conditions for the use of effective technologies of philological education in the intellectual and cultural development of students.
- 2) The availability of a sufficient material and technical base in higher medical institutions.
- 3) The efficient use of modern technical means and information technologies in the educational process.
- 4) Focus on engaging students in independent research activities.
- 5) The development of teaching and methodological support for teaching Latin.
- 6) The involvement of highly innovative teachers in the process of teaching Latin.

7) The establishment of a technological approach to the process of training future medical personnel.

8) Students' access to electronic libraries, etc.

When determining the level of intellectual and cultural development of students in the process of teaching Latin, special attention was paid to the reflection of the following characteristics in their personality:

a) Goal Orientation (I am studying to become a medical professional).

b) Intellectual and Cultural Perspective (I am a person with high intellectual and cultural activity; I will learn Latin thoroughly and apply it in my professional activity; I will strive to independently evaluate my successes).

c) Pedagogical Reflection (My life goal is to constantly analyze the essence of my personal actions as a medical professional).

**latin word		
cancer	cancer	
medicamentum	medication	
auris	ear	
abortus	abortion	
articulatio	joint	
lingua	tongue	

ventriculus	ventricle	
res	thing, matter	
oculus	eye	
sanguis	blood	
pectus	chest	
thorax	thorax	
corpus	body	
dens	tooth	
fel	bile	
epiphysis	epiphysis	
caries	cavity	
oesophagus	esophagus	
hemispherium	hemisphere	
ichthyismus	ichthyosis	
thrombus	thrombus	
scarlatina	scarlet fever	
angulus	angle	
olfactus	sense of smell	
intestinum	intestine	
incisura	notch	
rhinitis	rhinitis	

series	series	
aqua	water	
pharmacon	drug	
oedema	edema	
musculus	muscle	
vena	vein	
cytoplasma	cytoplasm	
defectus	defect	
dolor	pain	
rabies	rabies	
sutura	suture	
causa	cause	
medicus	physician	
cellula	cell	
os	bone	
curatio	treatment	
visus	vision	
homo	man	
lapis	stone	
cutis	skin	
abductor	abductor	

diaphysis	diaphysis	
processus	process	
sulcus	groove	
scabies	scabies	
epicondylus	epicondyle	
fascia	fascia	
punctum	point	
insertio	insertion	
ictus	stroke	

## Body Structure

### OBJECTIVES AND TASKS:

By the end of this chapter, you should be able to:

- List and define the main structural units of the body.
- Describe the anatomical position of the body.
- Identify the location of body cavities and abdominal-pelvic regions.
- Define terms related to body position, direction, and surfaces and apply them during radiographic examination.
- Describe common signs, symptoms, and diseases that may affect certain organ systems.
- Describe common diagnostic, conservative, and surgical procedures related to certain organ systems.

- Recognize, define, pronounce, and spell terms correctly.
- Demonstrate your understanding of this chapter by successfully completing the assigned tasks.

The body is composed of the following levels of organization, from simplest to most complex:

- Cellular Level: The smallest structural and functional unit of the body.
- Tissue Level: A group of similar cells performing a specific function.
- Organ Level: A group of tissues performing a specific function.
- System Level: A group of organs that work together to perform related or similar functions.
- Organism Level: The most complex level—a collection of systems that make up a living human being.

Of course, I will provide you with the English translation of this text:

## ## Body Surface and Cavities

2.1. The body surface is defined by an imaginary flat surface that divides the body into two parts. Different surfaces divide the body into different sections: anterior and posterior, right and left, superior and inferior. These surfaces serve as reference points for the direction being observed. The surfaces are especially useful for describing radiographic images.

The imaginary flat surface that divides the body into two parts is called a \_\_\_ plane \_\_\_.

2.2. Study Figure 2-2 and list the three main planes of the body:

\_\_ Sagittal (Median) \_\_, \_\_ Horizontal (Transverse) \_\_, \_\_ Frontal (Coronal) \_\_.

2.3. The midsagittal (median) plane lies in the exact middle of the body and divides it into two equal parts (see Figure 2-2).

The equal division of the chest into right and left sides occurs through the median or \_\_ sagittal \_\_ plane.

2.4. The horizontal (transverse) plane runs right to left and divides the body into superior (upper) and inferior (lower) portions.

The plane that divides the body into upper and lower portions is called the horizontal or \_\_ transverse \_\_ plane.

2.5. There are different transverse planes at any given level of the body. The transverse plane is also called the axial plane. Some radiographic equipment produces images that are transverse sections. Transverse sections of the body or an organ at different levels will give different views. The horizontal or transverse plane is also called the \_\_ axial \_\_ plane.

2.6. The frontal (coronal) plane, usually in radiology, indicates that the x-rays enter the body anter/o/poster/ior, meaning \_\_ anterior \_\_ / \_\_ posterior \_\_ and exit \_\_ anterior \_\_ / \_\_ posterior \_\_.

2.7. Create a term from the root radi/o that refers to the study or science of radiation or x-rays: \_\_ radiology \_\_ / \_\_ radiography \_\_ / \_\_ radiologist \_\_.

Body Cavities

2.8. The body contains two main cavities: the dors/al and ventr/al cavities. They represent the hollow spaces that hold internal organs. They are each composed of two cavities.

Using Figure 2-3, list the components of the following cavities:

- dors/al cavities: \_\_\_ cranial cavity \_\_\_ / \_\_\_ spinal cavity \_\_\_, \_\_\_ cranial cavity \_\_\_ / \_\_\_ spinal cavity \_\_\_.

- ventr/al cavities: \_\_\_ thorac/ic cavity \_\_\_ / \_\_\_ abdomin/o/pelv/ic cavity \_\_\_, \_\_\_ thorac/ic cavity \_\_\_ / \_\_\_ abdomin/o/pelv/ic cavity \_\_\_ / \_\_\_ peritoneal cavity \_\_\_ / \_\_\_ pleural cavity \_\_\_.

2.9. (1) The thorac/ic cavity contains the heart and lungs. (2) The abdomin/o/pelv/ic cavity contains the digestive and reproductive systems, and is further divided into two cavities: (3) the abdomin/al cavity and (4) the pelv/ic cavity. This division of the abdomin/o/pelv/ic cavity is convenient because the organs contained within are not separated by a wall and are actually part of one large cavity.

Locate the body cavities in Figure 2-3.

2.10. Use the terms super/ior and infer/ior to indicate location within the body cavities.

The thorac/ic cavity is located \_\_\_ superior \_\_\_ / \_\_\_ inferior \_\_\_ to the abdomin/o/pelv/ic cavity.

The spinal cavity is located \_\_\_ inferior \_\_\_ / \_\_\_ superior \_\_\_ to the cranial cavity.

2.11. (5) The diaphragm is a dome-shaped muscle important in breathing. It separates the thorac/ic cavity from the abdomin/o/pelv/ic cavity.

Locate the diaphragm in Figure 2-3.

2.12. Write the root words for the following terms:

• pelv/ic: \_\_ pelv \_\_

• thorac/ic: \_\_ thorac \_\_

• abdomin/al: \_\_ abdomin \_\_

“Rotating Table” Game Method

Process:

1. Collection of prepared questions and situational problems.
2. Numbers for each group of students.
3. Clean sheets of paper and pens.

Procedure:

- 1) Divide students into groups.
- 2) Each group prepares independently.
- 3) Collect the answers to the questions from each group.
- 4) Group leaders present the answers.
- 5) The optimal answer wins.

Homework:

1. Use the CD-ROM.
2. Read pages 1 and 2.

3. Do exercise 1 on page 2 in writing.

TOPIC: ADJECTIVES. GRAMMATICAL CATEGORY. LEXICAL FORM.  
AGREEMENT WITH NOUNS. BODY STRUCTURE

Adjectives are one of the parts of speech and answer the questions "what kind?" or "which?". In Latin, they are called *Nomen Adjectivum*. Adjectives always describe a noun and are written after it.

1. Adjectives are written in full in the masculine gender in the dictionary. Then, the feminine and neuter gender endings are written:

(Table1)

<b>Gender</b>	<b>Ending</b>	<b>Example</b>
Masculine	-us	<i>longus</i> (long)
Feminine	-a	<i>longa</i>
Neuter	-um	<i>longum</i>

2. Adjectives with the same endings for masculine and feminine genders have a dictionary form composed of two components: the same form for masculine and neuter genders, and the neuter gender ending:

(Table2)

<b>Gender</b>	<b>Ending</b>	<b>Example</b>
Masculine, Feminine	-is	<i>vertebralis</i> (pertaining to the vertebrae)
Neuter	-e	<i>vertebrale</i>

Adjectives are divided into two groups.

- Group I: Adjectives that take all three gender endings (Table 1).

- Group II: Adjectives that have the same ending for m, f, and a different ending for n (Table 2).

Adjectives agree in gender and number with the noun they modify.

For example:

- Right wing Dexter, tra, trum ala, ae, f

Since ala is feminine singular, it takes the adjective in the same gender and number.

- Ala dextra (Right wing)
- Left muscle Sinister, tra, trum musculus, i, m Musculus dexter (Right muscle)
- Left protuberance Sinister, tra, trum tuberculum, i, n Tuberculum sinistrum (Left protuberance)

Group II adjectives often end in is or e in anatomy. For example:

- Part pertaining to the forehead Frontalis, is, e pars, rtis, f Pars frontalis (Frontal part)
- Process pertaining to the forehead Frontalis, is, e processus, us, m Processus frontalis (Frontal process)
- Protuberance pertaining to the forehead Frontalis, is, e tuberculum, i, n Tuberculum frontale (Frontal protuberance)

## Abdominal-Pelvic Quadrants

2.14. Since the abdomin/o/pelv/ic cavity is a large area, it is easier to study it by dividing it into smaller parts. One method of dividing the abdomin/o/pelv/ic cavity is into quadrants. The other method is by dividing it into regions.

Physicians and medical personnel use quadrants and regions as reference points.

The major divisions of the abdomin/o/pelv/ic cavity include four quadrants: right upper quadrant, left upper quadrant, right lower quadrant, and left lower quadrant.

Locate the quadrants in Figure 2-4A.

Figure 2-4. Abdominal-pelvic quadrants and regions.

(A) Four quadrants of the abdomen. (B) Nine regions of the abdomen.

2.15. Quadrants are used to indicate a location where a surgical procedure may be performed. They are also convenient for describing the location of incisions or abnormal masses, such as tumors.

A tumor located in the right lower quadrant would be designated as \_\_ RLQ \_\_ in a medical report.

2.16. Quadrants can also be used to describe the location where a patient is experiencing symptoms. A physician may note that a patient is experiencing pain in the right lower quadrant. This finding would raise suspicion of appendicitis, as the appendix is located in that quadrant. Pain in another quadrant, for example, the left lower quadrant, would suggest a different diagnosis.

### Adjectives in Latin

#### Masculine, Feminine, and Neuter

- Long: Longus (m), Longa (f), Longum (n)
- Free: Liber (m), Libera (f), Liberum (n)
- Right: Dexter (m), Dexter (f), Dexterum (n)

Adjectives with the same endings for masculine and feminine genders:

The dictionary form of these adjectives consists of two components: the same form for masculine and neuter genders, and the neuter gender ending.

(Table2)

<b>Gender</b>	<b>Ending</b>	<b>Example</b>
Masculine, Feminine	-is	<i>vertebralis</i> (pertaining to the vertebrae)
Neuter	-e	<i>vertebrale</i>

## Two Groups of Adjectives

- Group I: Adjectives that take all three gender endings (Table 1).
- Group II: Adjectives that have the same ending for m, f, and a different ending for n (Table 2).

## Comparative Degree

The comparative degree is formed by adding the suffix *-issim-* to the base form of the adjective (except adjectives with the ending *-er*) and then the gender endings: (m) *-us*, (f) *-a*, (n) *-um*.

For example:

- Long: *longus* (m) > *longissimus* (m)
- Free: *liber* (m) > *liberissimus* (m)
- Right: *dexter* (m) > *dexterissimus* (m)

Write the abbreviations for the following terms:

- Right lower quadrant: RLQ
- Left lower quadrant: LLQ

2.17. Indicate the quadrant where the majority of the stomach is located:

LUQ (Left Upper Quadrant)

2.18. While the abdomin/o/pelv/ic cavity is divided into larger sections (quadrants), it is also divided into nine smaller sections called regions, which correspond to areas near specific points on the body. Like quadrants, body regions indicate the location of internal organs and pain.

Locate the different organs found in the regions in Figure 2-4B.

2.19. Below is a list of terms used to indicate the location of internal organs in the abdominal cavity. While the combining forms in the left column represent a body structure, they are combined with directional elements to form terms that designate specific areas of the abdomen.

Study each term for the region, then break down the terms in the right column into their basic elements. The first one has been done as an example.

Combining Form	Meaning	Area of the Abdomen
chondr/o	cartilage	hypo/chondr/iac
gastr/o	stomach	epigastric
inguin/o	groin	inguinal

|

| chondr/o | cartilage | hypo/chondr/iac |

| gastr/o | stomach | epigastric |

| inguin/o | groin | inguinal |

| lumb/o | loins | lumbar |

| umbilic/o | navel | umbilical |

2.20. Refer to Figure 2-4B to determine the term for the following statements. The first one is done as an example:

- Area near the groin: inguin/al
- Area under the ribs: hypo/chondr/iac
- Area near the navel: umbilic/al
- Area below the stomach: hypo/gastr/ic

2.21. Create medical terms from gastr/o with the following meanings:

- Pertaining to below the stomach: hypo/gastr/ic
- Pertaining to above the stomach: epi/gastr/ic

2.22. The epi/gastr/ic region is where a person may feel “heartburn”. Pain in this area can be a symptom of many abnormal conditions, including stomach upset or a heart attack.

2.23. The right and left hypo/chondr/iac regions are located on either side of the epi/gastr/ic region and directly under the rib cartilages.

- Beneath, lower, deficient: hypo
- Cartilage: chondr
- Pertaining to: -iac

2.24. The lumb/ar regions are the middle right and middle left areas that lie next to the iliac crests.

- Lumb/ar means pertaining to the \_\_\_ loins \_\_\_.

2.25. Combine lumb/o + abdomin + -al to create a term that means pertaining to the loins and abdomen:

lumb/o/abdomin/al

2.26. The umbilic/al region is centered where the mother's umbilical cord was attached to the fetus. This point is called the navel.

The region that lies between the right and left lumbar regions is called the \_\_\_ umbilic/al \_\_\_ region.

2.27. A hernia is a protrusion of an organ through the wall of the cavity that holds it. A common type of hernia, especially in men, is an inguinal hernia. This hernia is located in the right or left \_\_\_ inguin/al \_\_\_ region.

2.28. The area between the right and left inguin/al regions is called the hypo/gastr/ic region. This region contains the large intestine, which is responsible for eliminating solid waste from the body.

Identify the term meaning pertaining to below the stomach:

hypo/gastr/ic

Using the table below, fill in the blank spaces to the left of the definitions with the appropriate combining forms, suffixes, or prefixes.

Combining Form	Suffixes	Prefixes
abdomin/o	-ac	epi-
chondr/o	-ad	hypo-
crani/o	-al	
gastr/o	-ic	-ior
inguin/o		
lumb/o		
pelv/i, pelv/o		
poster/o		
spin/o		
thorac/o		
umbilic/o		

\* lumb/o pertaining to the loins

- -al pertaining to, relating to
- crani/o skull
- gastr/o stomach
- poster/o posterior (body)
- hypo- beneath, lower, deficient
- umbilic/o navel
- thorac/o chest
- gastr/o stomach
- -ic pertaining to
- -ior more

CHAIN GAME

Sequence of terms (Write the name of the next term according to the last letter of the previous term.)

1. encephalon (brain)
2. navel
3. left and right shoulder
4. region of the abdomen
5. neck and lower parts

Homework:

1. Use the CD-ROM
2. Read page 16.
3. Do exercise 1 on page 17 in writing, following the instructions.

TOPIC: ADJECTIVE DEGREES. COMPARATIVE DEGREE. CIRCULATORY SYSTEM

Adjectives are one of the parts of speech and answer the questions "what kind?" or "which?". In Latin, they are called Nomen Adjectivum. Adjectives always describe a noun and are written after it. Adjectives are written in full in the masculine gender in the dictionary. Then, the feminine and neuter gender endings are written:

The Circulatory System and Heart Structure

5.1. The circulatory system is divided into the cardiovascular system, composed of the heart and blood vessels, and the lymphatic system, composed of lymph vessels, lymph nodes, and lymphoid organs (spleen, thymus, and tonsils).

See Figure 5-1 to see the interrelationship between the cardiovascular and lymphatic systems.

5.2. (4) The aorta, the largest artery in the body, is the base of the systemic circulation. It begins at the left ventricle and curves as it ascends. Venous blood enters the (5) right atrium through two large veins—the venae cavae. (6) The superior vena cava carries blood from the upper part of the body (head and arms); (7) the inferior vena cava carries blood from the lower part of the body (legs).

Label these structures in Figure 5-2.

5.3. Blood in veins, except for pulmonary veins, contains a low amount of oxygen (deoxygenated) and a relatively higher amount of carbon dioxide. Unlike the bright red arterial blood (oxygenated), venous blood ranges from dark blue to dark red in color.

The term for blood containing low oxygen: deoxygenated

5.4. (8) The pulmonary trunk is the only artery that carries venous blood. Venous blood enters the pulmonary trunk as it is pumped out of the right ventricle. The pulmonary trunk ascends obliquely and divides abruptly into the right and left pulmonary arteries. Each branch carries venous blood to the lungs. (9) The right lung has three lobes; (10) the left lung has two lobes. Oxygen-rich blood returns to the heart through four pulmonary veins that connect to the (11) left atrium. They are paired— (12) right pulmonary veins and (13) left pulmonary veins.

Label these structures in Figure 5-2.

5.5. The interior of the heart is composed of four chambers. The upper chambers are the (1) right atrium and (2) left atrium. The lower chambers are the (3) right ventricle and (4) left ventricle.

Label the chambers in Figure 5-3.

Figure 5-3. Interior structure of the heart. Red arrows indicate arterial blood flow; blue arrows indicate venous blood flow.

5.6. The combining form atri/o means atrium. Create a term meaning pertaining to the atrium: atri/al

5.7. The combining form ventricul/o means ventricle (of the heart and brain). A ventricle is a small cavity, such as the right and left ventricles of the heart or the ventricles of the brain, which are filled with cerebrospinal fluid.

Sometimes, an incision is made into these chambers. To cut into the ventricles is called ventricul/otomy

5.8. The term atri/o/ventricul/ar means pertaining to the atrium and ventricle. It also refers to the conduction between the atria and ventricles.

Break down the components of the term atri/o/ventricul/ar:

- atri/o: atrium
- ventricul/o: ventricle
- -ar: pertaining to

Homework:

1. Use the CD-ROM.

2. Read pages 16-17, exercise 1 on page 17.

3. Do the exercise on page 33.

The organization of practical experimental work based on specific goals and assigned tasks led to the following conditions:

- 1) A clear direction for experimental research.
- 2) Effective utilization of available resources.
- 3) Efficient use of time spent conducting experimental research.
- 4) Predicting the expected result in advance.
- 5) Achieving specific results.
- 6) Ensuring a high level of effectiveness of experimental work.

Developing criteria for evaluating the effectiveness of students' intellectual and cultural development contributed to increasing the practical value of the research. The effectiveness of students' intellectual and cultural development was determined based on seven groups of criteria: research-investigative, communicative, evaluative, informational, activity demonstration, reflection, and managerial.

The widespread use of various experimental methods in considering pedagogical phenomena is determined by the need to take into account the human factor and to increase objectivity. The advantage of such an expert method is primarily reflected in its predictive function. Indeed, identifying possible directions for the development of the pedagogical process, assessing the factors influencing its implementation, serves as new knowledge about the specific pedagogical phenomenon obtained, as well as information for management.

## CONCLUSION

The research conducted for this study led to the following conclusions:

- Intellectual and cultural development represents a significant aspect of individual development, fostering independence, individuality, cognitive activity, critical thinking, wide-ranging assimilation of cultural heritage, and the ability to apply acquired knowledge, skills, and abilities in practice. Latin, as an ancient language, reflects the rich heritage of ancient states, science, and culture, providing an opportunity to identify important aspects such as analytical thinking, analyzing archaisms and borrowed words, and understanding the impact of Latin grammar rules on other languages.
- Based on the medical terminology and cultural aspects of Latin, it is crucial to consider the unity of concepts and reality as essential components of structuring linguocountry studies in the learning process. In this approach, the concept is considered as a large unit of the material (topic, broad concept), while reality is seen as a more specific and separate manifestation (specific concept, word). This allows for the flexible systematization and modification of learning materials, their scope, and complexity levels, depending on students' abilities and the characteristics of Latin learning.
- When organizing the process of working with concepts and realities in Latin language learning, it is effective to use individualized and differentiated learning technologies that allow students to choose one or more concepts from medicine or pharmacology, based on their interests; propose their own variations for classifying alternative ideas, learned and translated sentences, based on the main concepts suggested by the teacher; identify multiple interpretations related to one concept using textbooks, manuals, and dictionaries; clarify the equivalents of selected

concepts in the Uzbek language; and analyze and present the expression of medical concepts in Russian and English languages in the form of clusters.

- Creating a modernized electronic-didactic support for teaching Latin based on modules that consist of a theoretical section (anatomical-histological, pharmacological, clinical); a practical section (working on terms, practical and case assignments); and auxiliary materials (Internet links, independent and control assignments) contributes to the development of students' learning and cognitive activity.

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