

7.2 Didactic features of the formation of students, competencies in the study of the section “Tertiary Sector of the Economy” at school

Today, school geographic education faces an important task of creating conditions for the comprehensive development of students, their acquisition of key and subject competencies, and the education of a conscious citizen of the state who seeks to develop and learn throughout life. All this is spelled out in the State Education Standard (Cabinet of Ministers of Ukraine, 2020). Another document that regulates and defines the specifics of the educational process is the curriculum. In recent years, these documents have been amended to teach students to use their knowledge and skills to solve everyday problems and situations, ensure self-realization, and create the need for continuous education (Ministry of Education and Science of Ukraine, 2024a). A competency-based approach has been consistently implemented in the content of all curricula, which corresponds to the strategic direction of education development in the context of the provisions of the New Ukrainian School Concept (Ministry of Education and Science of Ukraine, 2024b; Bang & Medin, 2010).

The 9th grade geography course “Ukraine and the World Economy” completes the basic level of geographical education in primary school. The main goal of the course is to develop knowledge about trends in the development of the national and world economy and to determine Ukraine's place in the modern world (Ministry of Education and Science of Ukraine, 2024b). The curriculum was adjusted back in 2018, as many changes related to economic geography took place. First, there were changes related to the introduction of the national classifier “Types of Economic Activity” in Ukraine, which groups specific types of economic activity. It replaced the previously used classifier, namely the all-Union classifier of economic sectors. Secondly, the new classifier provides more objective information that can be used for comparative analysis of the structure of Ukraine's economy in accordance with international standards and to determine its place in the world. Thirdly, the UN international organization has decided to consider the world economy based on the sectoral model,

and new knowledge has been introduced into the educational process that students should have, namely, to study the modern world economy based on global value chains, studying in detail the specifics of the location of goods production and services provision. This approach allows us to explain to students the current realities in the location of enterprises and services, moving away from the old schemes of describing the economy. It is also important that the adopted classifiers and standards will allow us to consider the actual economic relations, instead of the outdated characterization of economic regions. With the new approach, it is possible to better explain to students the location of production on the territory of Ukraine, its sales and the role of these products on international markets (Geographer, 2022). These changes require appropriate basic training of students in economic geography, because these are the citizens who will carry out their professional activities in the new economic and economic realities (Honcharuk et al., 2021).

Our work is devoted to the methodological aspects of developing students' competencies in the study of the topic "Tertiary sector of the economy", which is the final section in the study of the sectoral structure of the economy. Knowledge of this topic is extremely important, because it is the sector that currently prevails in Ukraine and is the most dynamic in its development.

The transformation of the educational process from the standpoint of the competence approach is to ensure the personal orientation of the learning process, which is realized through various innovative pedagogical teaching technologies, forms of lessons, motivation and differentiation of the learning process, and also allows to develop algorithms for the formation of elements of subject geographical competencies of students, geographical facts, nomenclature, ideas, concepts, cause and effect relationships, applied and cartographic skills, etc. (Udovychenko, 2017).

The methodological features of teaching geography at school and the study of the formation of competencies in students in geography lessons are devoted to the works of such scientists as S. Kobernik, R. Kovalenko (2005), I. Udovychenko (2017), O. Topuzov, V. Samoilenko, L. Vishnikina (2012), I. Dibrova (2016), M. Lavruk (2015), O. Stadnyk, T. Nazarenko (2016), E. Pierson, C. E. Brady, S. J. Lee (2023) and

many others. Their works reveal the methodological features of knowledge formation and analyze the main directions of geography teachers' work on the formation of relevant competencies in students.

The study of the didactic features of the formation of key and subject competencies of students while studying the section 'Tertiary Sector of the Economy' in the 9th grade geography course was carried out taking into account the provisions of the competency-based approach defined by the Concept of the 'New Ukrainian School' and the current State Standard of Basic Secondary Education. The methodological basis was provided by the works of Ukrainian and foreign scientists on the methodology of teaching geography, the formation of students' competences, as well as research on the introduction of innovative pedagogical technologies in school education. To achieve the goal, a set of interrelated methods was used: theoretical, empirical and statistical. At the theoretical level, an analysis was carried out of the regulatory and legal documents of the Ministry of Education and Science of Ukraine (educational programmes, curricula, methodological recommendations for the 2022–2025 academic years), current geography textbooks for the 9th grade, as well as scientific and methodological publications covering the issues of competency-based learning. This made it possible to determine the content of the section 'Tertiary Sector of the Economy,' trace its consistency with the curriculum, and identify the strengths and weaknesses of the didactic support.

At the empirical level, pedagogical observation and questioning of ninth-grade students were conducted to determine the level of development of key and subject competencies during the study of the specified section. The experimental base of the study covered students from two ninth-grade classes of a general secondary school in Uzhhorod (a total of 58 students aged 14–15). During the 2023/2024 academic year, some classes were taught using traditional methods (control group), while others were taught using modern pedagogical technologies (experimental group). The innovative forms and methods included interactive teaching techniques (brainstorming, knowledge tree, role-playing, cartographic laboratory, unfinished sentences,

associations, plus-minus, etc.), project and research tasks, group work, elements of situational analysis and public discussions.

The teaching process was observed during the teaching practice of geography students at Uzhhorod National University. The characteristics of lesson organisation, student activity, their level of cognitive motivation, independence, and ability to apply the knowledge they had acquired in practice were recorded. After completing the study of the section, a questionnaire was conducted aimed at self-assessment of the formation of competencies (communicative, social, informational, intellectual, cartographic, socio-economic, local history, etc.).

The results were processed using quantitative and qualitative analysis methods. To compare the effectiveness of traditional and innovative teaching methods, a statistical generalisation method was used – calculating the percentage (%) of students who fully, partially or did not implement the relevant competencies. The data is presented in the form of tables and graphical summaries, which made it possible to identify the dynamics of changes in the process of forming students' knowledge, abilities and skills.

A qualitative comparative analysis of the content, structure and logic of the presentation of material in various textbooks was carried out, and the most effective didactic approaches for developing students' competencies were identified. Particular attention was paid to the local history approach, which was implemented by involving students in researching objects in their locality, analysing regional statistical data, and creating maps and mini-projects, which helped to increase motivation and independence.

Thus, the use of a set of complementary methods – analysis of programme documents and teaching materials, pedagogical observation, questionnaires, comparative and statistical analysis – made it possible to comprehensively characterise the process of forming key and subject competences in the course 'Ukraine and the World Economy'. This ensured the reliability of the results obtained and allowed us to formulate recommendations for improving the didactic principles of studying the section 'Tertiary Sector of the Economy' in school.

The topic “Tertiary sector of the economy” is the final section in the study of the sectoral structure of the economy and it includes five important topics: “Transport”, “Trade”, “Tourism”, “Research. Education. Healthcare”, “Financial Services. Computer Programming. Outsourcing”. According to the calendar and thematic planning, 10 hours are allocated for the consideration of these five topics on separate content topics and a final lesson on knowledge formation from the reserve time. According to the state requirements for the level of general education of students, a number of knowledge, activity and holistic components have been identified, according to which students must know, understand, explain, evaluate and justify the theoretical provisions of the material studied. An important prerequisite is knowledge of cartographic information provided by the program material. The curriculum provides for the mastery of three cross-cutting content areas. The most widely represented in this topic is the line “Entrepreneurship and Financial Literacy”, which involves the formation of students' knowledge: about optimal and economical ways of transportation; allows you to understand the feasibility of insurance medicine; covers information about technology parks in Ukraine and the world; comparing education in educational institutions, makes a rational choice about studying in educational institutions in Ukraine and the world; monitors the role of tourism in the development of their community, Ukraine and the world; monitors the rapid development of outsourcing in the country, evaluates the conditions for obtaining a license to work in the country. That is, this line forms a number of both general and subject competencies. The cross-cutting content area “Civic Responsibility” is designed to develop knowledge of: modernizing the transport system of the country or one's region; familiarizing oneself with the work of trade establishments and markets; and being able to demonstrate organizational skills in student government. The cross-cutting content line “Environmental safety and sustainable development” is included only in the topic “Transport”, which provides for the analysis of the negative effects of different types of transport on the environment (Ministry of Education and Science of Ukraine, 2024a).

An important methodological condition for studying the Tertiary Sector of the Economy, as well as geography in general, is to follow the local history approach to

teaching, which allows you to build the educational process on the direct study of objects in your region. This helps to intensify learning, increase their independent activity and interest, which is the key to successful learning at school (Barron, 2003).

Below, we will consider the didactic aspects of forming new knowledge, skills and abilities on this topic using innovative pedagogical technologies. When studying the topic “Tertiary sector of the economy” at school, students should know that in modern society, especially in post-industrial countries, it plays a very important role, and in many countries it is a key sector of the economy (USA, Netherlands, Monaco, Liechtenstein, Luxembourg, Great Britain etc.) (Archer et al., 2017). Living in favorable conditions, humanity pays more and more attention to ensuring comfortable living and working conditions, and strives to improve its intellectual and spiritual development. Although Ukraine is an industrial-agrarian country, it is witnessing an increase in the share of the service sector, which employs more than 60% of the country's population and accounts for 40% of the country's GDP. The largest service sectors in our country are transportation, trade, communications, car repair, finance and credit. Tourism, hospitality, catering, repair and construction services, and the entertainment industry are developing very dynamically and rapidly. Thus, when announcing the study of the Tertiary Sector of the Economy, the importance of forming knowledge about the most important types of services, their importance in the modern economy and prospects for development in Ukraine and the world was emphasized.

Studying and mastering the material by students depends not only on the didactic features of the lesson, but also on their ability to work with information sources, especially textbooks, which is an important condition for self-development and self-education. It is clear that the geographical text should be supplemented with cartographic and statistical materials. Therefore, we analyzed school textbooks edited by such authors as S. Kobernik, V. Boyko, H. Dovhan, O. Stadnyk to determine the content of the study of the topics in the section “Tertiary sector of the economy” (History, 2017a; History, 2017b; History, 2022). In all the textbooks, the authors draw attention to the importance of studying the tertiary sector of the economy and reveal its structure. The authors emphasize the growing role of this sector in the economies of

countries in the modern world, and reveal the relationship between the level of economic development of countries and the importance of the service sector in their economies.

When studying the topic “Transport”, the material is structured in such a way that students need to know the role of transport in the national economy and the formation of the world economy, to have a number of concepts such as “transport system”, “volume of traffic”, “freight turnover”, “passenger turnover”, “transport hub”, “transport highway”, “transport corridors”, etc. Analyzing the methodological recommendations for the study of geography from the 2022/23 academic year to the present day, which suggest using a specialized scientific dictionary with scientific concepts (Geographer, 2022; School life, 2024). The authors of the textbooks alternately disclose information about rail, road, pipeline, air, and water transport, international transport corridors in the country, and the dominant role of transport in Ukraine's exports of services. It is emphasized that it is important to develop students' knowledge of the transit value of Ukraine's highways, in particular the importance of the gas transportation system, which is currently the only way to supply natural gas from the east, as well as the importance of road transport corridors (History, 2017a; History, 2017b; History, 2022).

The recommendation for the study of geography starting in 2022-23 states that considerable attention should be paid to the transport of Ukraine, which is primarily due to the martial law in Ukraine. It is necessary to focus students' attention on the important role of Ukrainian railway company in the transportation of goods and during the evacuation of the population, as since February 24, 2022, a total of 3.8 million people have been transported free of charge from the war zone to Western Ukraine by this type of transport. This is a very important area of railway transport, as in those regions where such trains did not exist or circulated for a short time, the number of people who were unable to escape the war is much higher, and as a result, the number of victims is higher. The same recommendations also emphasize the advantages and disadvantages of each mode of transportation. Since civilian air transport was completely shut down under martial law, there were significant problems with sea

transportation, which is mainly used to export and import products and goods. Road transport also suffered losses due to damaged infrastructure and rising fuel and lubricant prices, but its role in freight transportation has increased significantly. So, this new information, which should be conveyed to students, but is not in the textbooks of these authors (Geographer, 2022).

The educational process in Ukrainian schools has gained considerable experience in using cartographic and statistical information in the study of economic geography. However, a number of scholars believe that the cartographic support (including atlases) is insufficient when studying transport geography. Therefore, in order to provide students with all the comprehensive information in the classroom, the teacher sometimes has to work not with one textbook, but use information from different sources, creating their own presentation materials, supplementing them with new statistical information.

Thus, assessing the peculiarities of the presentation of the topic “Transport” in textbooks for ninth graders, we note that there is a fairly large amount of material that is presented in accordance with the age and individual characteristics of students. The topics are filled with interesting, simple, understandable and accessible material that is easy to memorize. On the positive side, most textbooks provide interesting information, have thought-provoking questions, sections such as “Think”, “Internet Assistant”, “Work in a Group”, “Test Yourself”, and others. However, there is almost no information about urban transport, including electric and subway, and students need to work with additional sources to get information about them.

The second topic of this section, “Trade,” is designed to develop students' knowledge of another type of service: trade. The textbooks state that students should know the relevant terms; gain knowledge about the types of trade; familiarize themselves with the economic and geographical features of the spread and development of trade in the world and Ukraine; justify the factors of industry location and the specific forms of its organization, etc. According to the methodological recommendations for geography lessons, when studying this topic, it is necessary to use the conceptual and terminological dictionary in a specialized dictionary, as it is consistent with the appa-

status of modern European social and economic geography (Geographer, 2022; School life, 2024).

Analyzing the textbooks, we note that the presentation of information is grouped as follows: studying trade as an important type of service, developing students' knowledge of forms and indicators of trade, characteristics of foreign trade in Ukraine, Ukraine's trading partners, foreign trade in services, retail trade in goods and services in Ukraine. The study of world trade is supplemented by questions about the role of the World Trade Organization (WTO) and integration associations in world trade (History, 2017a; History, 2017b; History, 2022). The methodological recommendations for studying geography state that it is necessary to pay attention to the study of the topic "Trade", since in recent years, the structure of exports and imports of goods and services; the structure of foreign trade; and partnerships in this area have changed dramatically. The state has suffered significant economic losses due to the hostilities, the purchasing power of citizens has significantly decreased, many large trading floors and markets have been destroyed, and some international retail chains have ceased or partially restricted their operations in Ukraine. Other types of services have also gained significant development, in particular, e-commerce is actively developing, which today has more than 10 thousand stores, the logistics company has entered the international level by opening its branches in Poland. Therefore, for a successful didactic study of this topic, as well as the previous one, it is necessary to use several sources of information to modernize it and meet the requirements of today (Geographer, 2022). This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

Thus, by studying the topic "Trade", students gain knowledge about this important type of service, learn to evaluate it, consider the main forms of trade, indicators related to this topic, and get acquainted with the volume and structure of exports and imports of goods and services. On the positive side, by studying the world market for goods and services, the place of our country in this area is much better covered, the main directions of foreign trade relations are revealed, the most influential organiza-

tion in this area, the World Trade Organization (WTO), is studied in detail, and trade relations within regional organizations such as the European Union, NAFTA, and ASEAN are also covered. At the same time, the material presented in this topic is quite difficult to memorize, as it is full of many definitions and information related to the economy, so we believe that 2 hours to study this topic is not enough. Also, students are often confused about the concepts of exports and imports, and statistical information is updated so quickly that sometimes teachers may not have the latest information.

Studying the topic of tourism is always interesting for students. The curriculum is designed to teach students to distinguish between domestic and international tourism, to characterize the tourism industry as a component of the national economy. Students should know the types of tourism, the main tourist centers of the world and Ukraine. The growing role of international tourism in the world economy is emphasized. A prominent place in the study of the topic is occupied by the issue of studying UNESCO World Heritage Sites. Analyzing the textbooks (History, 2017a; History, 2017b; History, 2022), it was found that the presentation of the material is grouped as follows: study of tourism as an important component of the national economy and factors of its development; study of types of tourism; consideration of the modern tourism industry; study of recreational resources of Ukraine; coverage of the current state of tourism in Ukraine and the world and UNESCO World Heritage Sites. The geography textbook is filled with visual materials that will help students better absorb this knowledge, reflects up-to-date information on the development of tourism in Ukraine, and the changes that have occurred with the military operations in eastern Ukraine and the annexation of Crimea. The topic is supplemented by the sections “Journey into the Word”, “Records of Ukraine and the World”, and “The Latest Technologies in the Service of Tourism”. The material presented in the textbook edited by H. Dovhan is noteworthy in terms of information on changes in the tourism industry of Ukraine that have occurred since the beginning of the counter-terrorism operation in the east, and the updated 2019 textbook provides up-to-date information on the impact of the COVID-19 pandemic on the development of the recreational and tourism business in the world

(History, 2022). Thus, each author has his or her own vision of the presentation of the material, so their work should be used in combination.

The methodological recommendations for the study of geography starting in 2022/23 emphasize that students need to be provided with information about the changes that have taken place in the tourism industry. In particular, due to anti-pandemic restrictions, tourist flows have decreased in the country, and many Western carriers have refused to operate flights to Ukraine due to military operations. There were a number of issues in the tourism industry that needed to be addressed, including assistance in returning tourists stranded abroad; many industry workers were forced to leave their places of work and residence due to the war. The Black Sea tourist area has suffered the greatest losses due to the ban on swimming in the sea and the constant danger of shelling. Ukrainian citizens continue to discover their country and the Carpathian-Podilsk recreational area has become more popular, with tourist flows directed to ecologically clean forests, rivers, lakes, and architectural complexes of settlements. Outbound tourism has also gradually resumed, with women and children traveling to popular summer destinations with flights from neighboring countries (Geographer, 2022).

Thus, we believe that the textbooks contain enough material that is presented in an accessible language, is extremely interesting and well illustrated. There are links to Internet resources with interesting information, as well as questions to activate the research component of the educational process and the formation of cognitive activity. The authors mention the development of domestic tourism in Ukraine to a lesser extent, and they also practically do not disclose the negative consequences associated with mass tourism.

The fourth topic of the section “Science. Education. Healthcare” aims to form students' knowledge of the role of education and science in society, to track the peculiarities of the organization of scientific and educational activities, to know the advanced scientific and educational centers in Ukraine and the world; to analyze the impact of the geographical environment on public health; to find out the peculiarities of the location of healthcare institutions in Ukraine and their region. The textbooks

cover the following topics: study of educational services, the role of science and education in society; analysis of scientific activities and technopolises, science and education in Ukraine, and healthcare. There is a lot of information about spending on science and sources of funding, the largest technology parks and research and education centers in the world are described; up-to-date information about the most prestigious higher education institutions in Ukraine and the world, the best medical institutions in the world and our country, and the role of the World Health Organization in this area are covered (History, 2017a; History, 2017b; History, 2022). At the same time, the authors limit themselves to providing information about educational and research centers, technology parks, but do not disclose the specifics of their activities and areas of research. There is almost no information on the impact of the geographical environment on public health.

In teaching geography, teachers should take into account the changes brought about by the war: more than 2,000 educational institutions have been damaged by shelling and bombing, of which nearly 1,100 are located on the temporarily occupied territory, and about 200 are completely destroyed. The number of students in schools has also changed, as more than 700,000 students have moved abroad, and about 1.7 million students are already studying in new places. Not only students, but also about 25,000 teachers have also left the country and are now helping to organize the educational process abroad, in particular in Poland, Lithuania, the Czech Republic, and Bulgaria. A similar trend is observed in the healthcare sector, as the war has damaged almost 900 medical institutions, 120 of which were completely destroyed, and direct and indirect losses reached USD 2.7 billion (Geographer, 2022).

The study of the section “Tertiary sector of the economy” is completed with the topic “Financial activity. Computer Programming”, which considers the largest type of service in terms of value - financial, provides information on world banking and financial centers, considers the impact of globalization on the location of financial institutions, provides information on offshore countries and the peculiarities of the location of financial institutions in Ukraine. The authors of the textbooks consider the peculiarities of scientific and educational activities and their impact on the socio-

economic development of society, and provide definitions that students should use. The textbook chapters provide the most up-to-date information on the types of financial services, world centers of banking and financial activities, peculiarities of financial institutions' location in Ukraine, IT services and their components, leading countries in the global software market, and the benefits of outsourcing. The material is supplemented with statistical information in the form of tables on the “World's Largest Banks” and “World's Largest Financial Centers”, etc. When studying such material, teachers should use statistical information that provides argumentation and evidence of the provisions. Such information is presented in the form of diagrams, cartograms, tables in textbooks (History, 2017a; History, 2017b; History, 2022). It is important for students to understand the peculiarities of the geospatial organization of financial services and IT services. Since there is not enough presentation material in the textbooks, we consider it necessary to use additional sources of information. So, the textbooks describe very well the types of financial services, the largest financial centers in the world, types of IT services; IT education and training; IT outsourcing, the reasons for the growth in demand for IT services, the benefits of outsourcing, and the largest countries producing computer software. These topics have interesting and informative material for studying and memorizing. The issue of the development of IT services in Ukraine is somewhat less covered, so students need to emphasize that our country is the world's leading exporter of IT services, including IT outsourcing. There are almost 100 international centers and more than 4 thousand national IT companies in Ukraine, employing more than 100 thousand highly qualified specialists, which is the main advantage of the Ukrainian IT business. By these indicators, our country is a leader in Europe. The main customers of outsourcing services in Ukraine are companies from the US (45%), the EU and Israel. These companies are located in Kyiv, Kharkiv, Lviv, Dnipro, and Odesa. When studying this topic, students should emphasize information related to the war that is not included in their textbooks. For example, the guidelines note that the war has had a negative impact on non-banking financial services markets, microcredit financial companies have ceased operations, and the National Bank of Ukraine has launched a website about the country's financial system, which con-

tains a lot of important information (Geographer, 2022). Despite the war, the Ukrainian IT sector has grown a bit and is an industry that fills the state budget with its taxes. With the outbreak of war, these companies had to urgently reorganize their workflow, as offices were closed, relocated, and temporarily switched to remote work. The number of vacancies in this area also fell sharply, by an average of 2.5 times compared to the previous period. Nevertheless, dozens of global companies wanted to hire Ukrainian specialists. Therefore, to get more information, teachers need to turn to additional sources. Summarizing the above information, it has been found that the reviewed textbooks contain enough information to develop students' knowledge, skills, general and subject competencies. Each author has his or her own approach to the presentation and content of the material, the logic of its construction, and the didactic features of the presentation of information. When studying the section, it is necessary to use the conceptual and terminological apparatus of modern European social geography (School life, 2024).

When planning a lesson, the teacher should choose the structural components that will optimally ensure the achievement of the didactic goal that is put forward for the construction of a modern lesson. Traditional geography lessons are based on the principle of transferring knowledge from teacher to student. The teacher structures the learning process, chooses the methods of presenting information and monitors the learning of the material. The purpose of such lessons is to provide students with solid theoretical knowledge through a detailed presentation of the material, supported by facts and logical arguments. This approach involves the active role of the teacher and the passive role of the students, who must listen carefully and memorize new information, and at the same time requires high concentration and independent work from students (Batson & Ahmad, 2009).

The modern educational process in schools is undergoing a period of reform, when the content of education is being updated, and a new learning structure is being introduced to develop students' potential and abilities. In order to achieve this goal and solve a number of challenges faced by modern teachers, it is necessary to actively introduce and apply innovative pedagogical methods aimed at the comprehensive de-

velopment of a young person. These are interactive teaching methods that can help students understand the essence of things rather than memorize them, think rather than memorize them, comprehend ideas, search for the necessary information, be able to operate with it and use it in specific conditions. With the help of modern pedagogical methods and technologies in the educational process, it is possible to: create comfortable psychological conditions for learning; ensure their proper progress, intellectual growth, individual perception of information; create conditions for proper reflection on personal experience and its correlation with the experience of others; involve students in active awareness of new information, development of reflection skills; form skills of dialogic communication, critical thinking and independent behavior (Vishnikina & Dibrova, 2016; Salyuk et al., 2024). Therefore, the structure of lessons using modern pedagogical technologies has a different form and such lessons are called competency-based. In the system of competency-based lessons, the teacher is not a source of knowledge, unlike a traditional lesson, but an organizer of students' independent activities, their assistant, consultant, partner, who is called upon to provide comfortable conditions for the acquisition of key and subject competencies (Volosyuk, 2019).

Therefore, after analyzing the literature and observing the educational process, including during the pedagogical practices of university students, a program for the development of students' competencies in the section "Tertiary sector of economy" was developed. Namely, in some classes, the material was taught in the form of traditional lessons, while in others, modern pedagogical methods and technologies were used (Finkelstein et al., 2019; Leta et al., 2023).

The main task of modern geographic education, both in traditional and non-standard classes, is to carefully select teaching materials that are functional and appropriate. The content of these teaching materials in geography textbooks has been discussed above. When studying the material using traditional methods and means of teaching, the following types of lessons were planned: lessons of studying new material, combined lessons and a seminar lesson. Methods and techniques used in the lessons: explanation, narration, conversation, anticipatory tasks, explanatory and illustrative,

reproductive (by model), partially searching, demonstration, work with a book and a map (Table 1). When working with students in traditional lessons, it is necessary to start with explaining the material, introducing elements of conversation, as students' independence began to increase, then the tasks were complicated by working with map schemes, diagrams, atlas maps and other sources of information. Later, students were asked to characterize individual regions themselves, and then try to explain their interconnections and territorial structure. The main function of the teacher in traditional lessons was to convey educational information and create conditions for students to learn it. In such lessons, the teacher was mostly active, with a predominantly authoritarian teaching style, and students only performed tasks according to his or her instructions. In traditional lessons, there was a clear distribution of time between all macro- and micro-components of the lesson. Such lessons were quite tiring for students, reducing their cognitive activity, as the most productive time of the lesson was spent on checking learning outcomes, while too little time was spent on learning new material. After conducting traditional lessons with ninth-graders, we believe that these were “lonely lessons” because they were not connected with other forms of learning organization and there were no connections with other subjects, which means that it was not possible to form students' interdisciplinary competencies. In such lessons, there was virtually no interaction between the teacher and students, and the students were passively absorbing the material. In the literature, we find information that the anticipatory tasks provided by the curriculum open up wider opportunities for the teacher. When we used them in the study of the topics “Transport of Ukraine” and “UNESCO World Heritage Sites”, we did not observe any effective increase in students' cognitive activity, they performed the tasks mainly to get a higher grade.es of information.

Table 1.

Program for the formation of knowledge in the classroom when studying the
section “Tertiary sector of the economy”

Topics and content of the training material	Methods, techniques and tools for knowledge formation	
	Traditional lesson	A lesson using modern pedagogical methods and technologies
The role of transport and its types	A lesson of learning new material. Teacher's explanation, storytelling.	Lesson of formation of new knowledge, skills, abilities. Techniques: ‘Knowledge Tree’, ‘Formulating Concepts’, ‘Hint’, ‘Cartographic Laboratory’, ‘Pre-assignment of students’, ‘Brainstorming’, ‘Plus - Minus’, ‘Pit Stop’. Teacher's explanation with elements of conversation.
Transport of Ukraine. Research: Urban modes of transport in your regional center	A lesson in learning new material. Ahead of time tasks. Performing and presenting research. Explanatory and illustrative and research methods.	Lesson on the formation of new knowledge, skills, abilities. Role play, conversation, teacher's explanation with elements of conversation, project method. Techniques: ‘Internet minute’, ‘Mathematical minute’, ‘Brainstorming’, ‘Unfinished sentence’
Transport of the world	A lesson on learning new material. Explanation, reproductive method (based on a model), work with a map.	A combined lesson. Techniques: ‘Web’, ‘Drawing a conclusion’, ‘Mathematical minute’, ‘Cartographic laboratory’, ‘Drawing a conclusion’, ‘Press’, ‘Microphone’, Work in groups. Teacher's explanation with elements of conversation.
Trade as a type of service. Trade in Ukraine	Combined lesson. Partial search method, narration.	Lesson of formation of new knowledge, skills, abilities. Techniques: ‘Associations’, ‘Forming concepts’, ‘Hint’, ‘Showing off’, ‘Brainstorming’, ‘Internet Minute’, ‘Name me’, ‘Drawing a conclusion’. Role play, explanation, conversation.
World trade	A lesson on learning new material. Talk, discussion, work with a book and maps.	Combined lesson. Geographical nomenclature, work with a map. Role play (globalists and anti-globalists). Techniques: ‘Hat’, ‘Associations’, ‘Chain’, ‘Internet Minute’, ‘Math Minute’, ‘Cartographic Laboratory’, ‘Plus - Minus’, ‘Students’ advance task’. Teacher's explanation with elements of conversation.
Tourism as a component of the national economy, its types. Tourism in Ukraine	Lesson on the use of knowledge, skills and abilities. Storytelling, conversation, work with a book.	Lesson on the formation of new knowledge, skills and abilities. Techniques: ‘Chain’, ‘Forming concepts’, ‘Hint’, ‘Showing off’, ‘Personal experience’, ‘Internet minute’, ‘Cartographic laboratory’, ‘Unfinished sentence’, ‘Knowledge tree’, ‘Plus - minus’, ‘Personal experience’. Teacher's explanation with elements of conversation.

Continuation of table 1

UNESCO World Heritage Sites. Tourist areas of Ukraine	Lesson-seminar. Advance tasks.	Lesson-excursion. “Students' anticipatory task” Presentation of UNESCO World Heritage Sites in Ukraine. Methods: ‘Video’, ‘Personal experience’. Research method.
International tourism. The main tourist regions of the world	Lesson on the use of knowledge, skills and abilities. Partial search method, demonstration, explanation.	Combined lesson: ‘Conversation’, ‘Mathematical minute’, ‘Brainstorming’, ‘Cartographic laboratory’, ‘Chain’, ‘Tree of knowledge’. Teacher's explanation with elements of conversation.
Science. Education. Health care	Combined lesson. Conversation.	Lesson of formation of new knowledge, skills, abilities. Techniques: ‘Faceting’, ‘Spider's Web’, ‘Problematic question’, ‘Internet Minute’, ‘Associations’, ‘Unfinished sentence’. Teacher's explanation with elements of conversation.
Financial services. Computer programming. Outsourcing	Lesson of learning new material. Telling, explaining, working with a book and maps	Lesson of formation of new knowledge, skills, abilities. Methods: ‘Conversation’, ‘Associations’, ‘Forming concepts’, ‘Cartographic laboratory’, ‘Plus - minus’, ‘Working with a textbook’, ‘Pit stop’, ‘Brainstorming’. Teacher's explanation with elements of conversation

Today's school lessons are not just about conveying the content of the material, but above all about the comprehensive development of students, the disclosure of their cognitive capabilities, a source of new knowledge, a way of communication, increasing motivation, the desire for self-education, and the joint activities of the teacher and student. Therefore, interactive teaching methods have proven to be the most effective. They create psychologically comfortable conditions for the educational process, and students can feel the effectiveness of their work and its success. Lessons with the use of innovative pedagogical technologies provide opportunities for individual perception of educational information, students are involved in the lesson on an equal footing with the teacher, they need to work actively, think and realize information, develop reflection and communication skills, think critically, etc. (Volosyuk, 2019; Metod-claster, 2017). We believe that 9th grade students are already active learners, they have a certain amount of knowledge, operate with some information, and have experience working in groups, so both simple and more complex interactive teaching methods and

techniques can be used with them. In addition, their use will be appropriate at any stage of the lesson (Table 1). Thus, in lessons using innovative teaching methods, the teacher is the organizer of students' learning and cognitive activities, helps them navigate the learning material, find ways to achieve the goal, teaches them to work independently and gain knowledge (Carlone et al., 2011; Conlin and Scherr, 2019). Therefore, we believe that school geography has many conditions for such independent activities and the formation of the necessary competencies. In addition, during geography lessons (both traditional and modern), students should learn to obtain geographical information not only from textbooks, but also from cartographic material, foreign language sources, Internet resources, use modern digital technologies and devices, create information products and effectively cooperate with others (Salyuk et al., 2024).

To determine the effectiveness of using innovative teaching methods, a survey was conducted among students on the formation of relevant competencies (Table 2) during the study of the section “Tertiary sector of the economy”.

Table 2.

Students' self-assessment of their competencies

Name of the competence	Degree of implementation (number in %)					
	fully		partially		not implemented	
	Traditional lesson	Interactive lesson	Traditional lesson	Interactive lesson	Traditional lesson	Interactive lesson
Key competencies:						
1. Communicative	52	81	24	17	24	2
2. Social	37	63	29	32	34	5
3. Intellectual	44	75	38	24	18	1
4. Informational	74	92	16	7	16	0
5. Linguistic	34	60	51	38	15	2
6. General cultural	43	48	48	46	8	6
7. Self-education and self-development	14	73	24	24	62	3
Subject matter competencies:						
8. Cartographic	55	80	35	20	10	0
9. Natural	41	69	52	26	7	5
10. Socio-economic	70	86	25	13	5	1
11. Environmental	42	65	44	28	14	7
12. Spatial	35	71	48	29	17	0
13. Local history	71	94	25	4	4	2

After analyzing the data, it was found that students whose lessons were taught using traditional methods mastered the information and communication competencies best of all (74% and 52% fully), while 16% did not realize it. Students rated the competence of self-education and self-development the lowest, as 62% of students did not realize it during the study of the section. Among the subject competencies, students of this group mastered the socio-economic and local history competencies best of all (70 and 71%, respectively). We believe this is because geography lessons contained a lot of information related to economic geography, as well as many real-life examples related to the native land. The lowest scores were given to natural and environmental competencies (Table 2). In our opinion, this is due to the fact that students did not fully understand them in the context of studying topics related to social geography (Hufnagel, 2018; Lanouette, 2022).

After analyzing the relevant information obtained in the classroom where teaching was conducted using innovative teaching methods and tools, it was found that in this class, students had much more fully realized competencies. The share of unrealized competencies in such lessons is quite insignificant (Table 2). In their opinion, students mastered the highest level of information and communication competencies among the key competencies (92% and 81%, respectively). It is known that lessons with the use of modern educational technologies are quite informative, full of interesting material and encourage students to acquire knowledge on their own. This is also evidenced by their mastery of intellectual and self-educational competencies, which have been fully mastered by 75% and 73% of students. This once again confirms the fact that the goal of the competency-based learning approach is self-learning and the desire to gain knowledge. Among the subject competencies, the best mastered are: local history (94%), socio-economic (86%), and cartography (80%). The least mastered, as in the previous class, are natural and environmental competencies. It should be noted that the percentage of unrealized competencies is very low in this control class (Table 2). Thus, it can be argued that modern educational methods increase students' learning and cognitive activity and effectively affect the quality of learning.

The scientific article provides a comprehensive analysis of the didactic features of studying the section “Tertiary sector of farms” in geography lessons. The content of various school geography textbooks is considered in detail in order to determine the content of studying the topics of this section. It is established that all textbooks have enough information to form general and subject competencies. Each author has their own approach to the presentation and content of the material, the logic of its construction, and the didactic features of the presentation of information. To present information to students in the classroom, the teacher needs to work not with one textbook, but use various sources, including methodological recommendations for studying the subject. The author offers practical recommendations for improving the teaching of the subject with the use of innovative pedagogical technologies and interactive teaching methods. A comparison of the effectiveness of the educational process in traditional lessons and lessons using modern pedagogical methods and technologies was made. The main goal of traditional lessons was to teach students knowledge. They were “single lessons” and failed to develop students' cross-curricular competencies. In such lessons, the teacher was mostly active, and the students only performed tasks according to his instructions. Methods and techniques used in such lessons: explanation, narration, conversation, anticipatory tasks, explanation, reproductive (modeled), partially searching, demonstration, work with a book and a map. In lessons with the use of modern pedagogical technologies, the teacher is the organizer of students' learning and cognitive activities, helps them navigate the material, find ways to achieve the goal, teaches them to work independently and gain knowledge. Such competency-based lessons create comfortable conditions for the educational process, and students can feel the effectiveness of their work and its success. In such lessons with ninth graders, you can use both simple and more complex teaching methods, such as: “Situation Analysis”, ‘Public Hearings’, ‘Role Play’, ‘Discussion’, ‘Continuous Scale of Opinions’, ‘Brainstorming’, ‘Decision Tree’, ‘Circle of Ideas’, ‘Hat’, ‘Math Minute’, ‘Cartographic Laboratory’, ‘Unfinished Sentence’, ‘Showing Off’, ‘Name Me’, etc. A comparative analysis of the formation of key and subject competencies in students after studying the relevant section showed that students where the lesson was taught

using innovative teaching technologies had higher percentages of formed competencies and very low percentages of unrealized competencies, which confirms the fact that the purpose of the competency-based learning approach is self-learning and the desire to gain knowledge.