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## THE ROLE OF COMMUNICATIVE GRAMMAR IN TEACHING ESP TO GEOLOGISTS

The article discusses the role of communicative grammar in teaching English for Specific Purposes (ESP) to geologists. The authors emphasize the importance of effective communication skills in the field of geology, as geologists often collaborate with international colleagues, present research findings, and contribute to the global scientific community. While grammar is sometimes considered tedious, it plays a significant role in enhancing communicative skills. A lot of Ukrainian scholars have been developing effective approaches to teaching ESP with a strong focus on communication skills. Despite the broad spectrum of fields in which communication approach has been theoretically considered and practically incorporated (e. g. engineering, information technologies, business communication), Earth sciences, namely the field of geology, have received relatively little attention in terms of communicative grammar instruction. This fact accounts for the urgent need to develop relevant exercises for geostudents. The authors suggest various types of communicative grammar exercises suitable for geostudents within the ESP framework. These exercises include contextual dialogues, error correction activities, information gap exercises, descriptive presentations, role-play group discussions, and collaborative problem-solving tasks. In order to support their theoretical observations, the authors have chosen illustrative material based on the grammar topic 'Modal Verbs' and lexical topic 'Environmental Issues'. In conclusion, the article emphasizes the crucial role of communicative grammar in teaching ESP to geologists. When it comes to using modal verbs in a professional context, communicative grammar exercises can improve students' ability to ask for permission, grant or refuse permission, ask for advice and give advice, speculate about future events, and discuss possible consequences of various natural and human-made phenomena in professional contexts.

**Keywords:** communicative grammar, teaching ESP to geologists, geology-specific vocabulary, oral communication, written communication, professional context.

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## РОЛЬ КОМУНІКАТИВНОЇ ГРАМАТИКИ У ВИКЛАДАННІ АНГЛІЙСЬКОЇ МОВИ ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ ДЛЯ ГЕОЛОГІВ

У статті розглянуто роль комунікативної граматики у викладанні англійської мови за професійним спрямуванням для геологів. Автори підкреслюють важливість ефективних комунікативних навичок у галузі геології, оскільки геологи часто співпрацюють із закордонними колегами, презентують результати досліджень та роблять свій внесок у світову наукову спільноту. Хоча граматика іноді вважається не надто цікавою, вона відіграє важливу роль у засвоєнні комунікативних навичок. Багато українських науковців розробляють ефективні підходи до викладання англійської мови професійного спрямування з акцентом на комунікативних навичках. Незважаючи на широкий спектр галузей, в яких комунікативний був теоретично розглянутий та практично впроваджений (наприклад, інженерія, інформаційні технології, ділове спілкування), наукам про Землю, а саме геології, приділялося відносно мало уваги з точки зору викладання комунікативної граматики. Це зумовлює нагальну потребу в розробці відповідних вправ для студентів-геологів. Автори пропонують різні типи вправ із комунікативної граматики, які підходять для студентів-геологів. Ці вправи включають контекстні діалоги, вправи на виправлення помилок, вправи на заповнення інформа-

ційних прогалин, описові презентації, рольові групові дискусії та завдання на спільне розв'язання проблем. Для того, щоб проілюструвати свої теоретичні спостереження на прикладах, автори пропонують навчальний матеріал на основі граматичної теми «Модальні дієслова» та лексичної теми «Екологічні проблеми». У висновку статті підкреслюється важлива роль комунікативної граматики у викладанні англійської мови за професійним спрямуванням для геологів. Коли йдеться про використання модальних дієслів у професійному контексті, вправи з комунікативної граматики можуть покращити вміння студентів використовувати широкий функціональний спектр модальних дієслів для спілкування у професійному контексті.

**Ключові** слова: комунікативна граматика, викладання англійської мови професійного спрямування для геологів, геологічна лексика, усне спілкування, письмове спілкування, професійний контекст.

Introduction. Effective communication skills are essential for geologists, as they often collaborate with international colleagues, present research findings at the conferences, go to study or work abroad, and contribute to the global scientific community. While grammar is sometimes perceived as a restrictive and tedious aspect of language learning, its role in enhancing communicative skills is significant. A solid understanding of grammar provides students with a framework to expand their vocabulary and improve fluency in oral communication. Grammar rules help students construct accurate and meaningful sentences, enabling them to express their ideas and engage in discussions effectively. Geology has its own technical vocabulary and terminology. Learning grammar facilitates the acquisition and comprehension of these specialized terms, enabling students to effectively communicate within the field. When it comes to written communication, a confident use of grammar also plays an important role. Within the framework of the ESP course, students have to deliver geology-related essays that require them to incorporate diverse grammar structures such as complex sentences, conditional sentences, passive voice, clauses, and academic vocabulary to present their arguments and findings. Also, they are commonly asked to write scientific abstracts of articles, essays, detailed field trip reports or even research papers. It is clear that without a solid knowledge of grammar, the completion of all these tasks is hardly possible. The development of meaningful grammar assignments aimed at the improvement of general and professional communication skills in the geological sphere has been an urgent issue of higher education these days.

Theoretical background. In the mid-20th century, the communicative approach revolutionized language teaching methodologies. English communicative grammar shifted the focus from rote memorization of grammar rules to facilitating meaningful communication. Students have been encouraged to use grammar in real-life contexts and develop their language skills through interaction. When it comes to English communicative grammar within the ESP framework, its aim is to teach students the language forms and functions relevant to their specific field. It emphasizes using grammar as a tool for effective communication in professional contexts. In Ukraine, the modern development of the communicative approach has gained significant importance in teaching ESP to non-native students. Theorists of ESP have been emphasizing the importance of a competence-based approach, 'in which the acquisition of knowledge is combined with the experience of using the acquired knowledge in situations close to real life. Lexical, grammatical, social, cultural, and other competencies formed in the process of learning a foreign language, will help a graduate to effectively cooperate with native speakers, and feel confident in the country of the language being studied' (Hryshkova, 2015: 26).

A lot of scholars have been developing effective approaches to teaching ESP with a strong focus on communication skills. For example, O. Bihych et al. (Bihych et al., 2013), R. Hryshkova (Hryshkova, 2015), and L. Morska (Morska, 2002) have considered general theoretical issues concerning ESP teaching. O. Tarnopolsky and S. Kozhushko (Tarnopolsky & Kozhushko, 2008) have focused on ESP for business communication, N. Sura has analysed effective methods of ESP in the IT sphere (Sura, 2012), (Sura, 2015), and V. Aleksandrov, S. Isayenko have dealt with problems related to the professional training of future engineers, etc.

Despite the broad spectrum of fields in which Ukrainian scientists have been developing effective methods of strengthening students' communication skills, Earth sciences are paid relatively little attention. This fact accounts for an urgent need for the development of relevant grammar exercises for geostudents, which we will consider in our article. In this regard, we completely agree with the Ukrainian scientist O. Syvak who states that 'Mastery of the specialized vocabulary and the ability to naturally use it in almost any context go hand in hand with solid knowledge of grammar. Grammar teaching cannot be neglected. It is a task for ESP lecturer to apply teaching strategies which are interesting, motivating and engaging' [1; 50]. Therefore, the **purpose** of our article is to consider types of effective grammar exercises with a strong emphasis on the oral communication aspect and support them with proper examples to show how these exercises can be practically applied in teaching ESP to geostudents. In the paper, a common grammar topic 'Modal Verbs' has been chosen to illustrate how grammar exercises can work in a classroom environment. The lexical area is 'Environmental Issues' as it encompasses a broad spectrum of topics that geostudents find quite interesting.

**Results.** Keeping in mind the main goals of communicative grammar in ESP to equip learners with the linguistic tools necessary to communicate confidently, accurately, and effectively within their chosen professional or academic field, we suggest the following types of exercises for geostudents based on the grammar topic 'Modal Verbs' and the lexical topic 'Environmental Issues'.

1. Contextual Dialogues or role-plays simulate real-life situations encountered by geologists and incorporate specific vocabulary and grammatical structures relevant to their professional domain. They help students practice applying grammar rules and vocabulary in authentic communication contexts. When it comes to modal verbs, as an illustration we suggest practicing the functions 'asking for permission' and 'granting permission' during the visit of students to a geological museum. Example:

Fill in the gaps in the dialogue using MAY, COULD, CAN, SHALL, SHOULDN'T, CAN'T, WOULD. There may be multiple correct answers for some sentences.

	<i>rudent 1:</i> Excuse me, sir. (1)we take some photographs inside the museum?	
	structor: Yes, you (2) However, please avoid using flash photography near delicate exhibits.	
	rudent 2: (3) we ask you a question about the most recent volcanic eruptions?	
	structor: Of course, you (4) I'll be happy to provide you with any information you need.	
	we touch the volcanic rocks from Mauna Loa in this display case?	
	structor: I'm afraid you (6)  . It's best to observe them without physical contact to preserve their integrity.	
	udent 1: (7)it be possible to schedule a guided tour for our class? Instructor: Certainly! I (8) arra	ange a
gui	d tour for your class next week. Just let me know the preferred date and time.	

Student 2: (9) \_\_\_\_\_\_it be possible to have a guest speaker who specializes in volcanic eruptions and their negative impacts on the environment?

Instructor: Yes, it's possible. I (10) \_\_\_\_\_\_ reach out to experts and invite them to give a guest lecture on the topic you've suggested. (Mehela & Liashchenko, 2023: 88)

As for role plays, we can illustrate this type of exercise with the following example, in which a dialogue between a teacher and a student should be played out to discuss possible consequences of a wildfire in Australia. The function of modal verbs here will be expressing possibility concerning future events. Example:

Information Card for Student 1 (Teacher):

The Blue Mountains wildfires in Australia have significant consequences for the environment, wildlife, and nearby communities. Here are some key points to mention:

The Blue Mountains are known for their diverse ecosystems, including unique plant species and habitats for wildlife.

The fires result in the destruction of a large area of vegetation, including forests and natural reserves.

The direct consequences include loss of biodiversity, habitat destruction, and displacement of wildlife.

The long-term impacts may include soil erosion, increased risk of landslides, and potential changes in water quality and availability.

The local communities may face challenges such as property damage, displacement, and economic loss, particularly for those relying on tourism or agriculture.

Task Card for Student 2 (Student):

Your task is to ask questions and gather information from the teacher regarding the possible consequences of the wildfire in the Blue Mountains, Australia. Here are some questions to guide your conversation:

How might the wildfire impact the vegetation and forests in the area?

What the direct consequences for biodiversity and wildlife might be there?

Are there any long-term effects on the environment and ecosystems?

How might the local communities in the Blue Mountains region get affected?

2. Error Correction Activities: students are provided with written or spoken texts that contain grammatical errors commonly made by geology students. They have to identify and correct the errors in pairs/groups. This exercise improves their ability to recognize and rectify grammar mistakes while reinforcing domain-specific language. As an illustration, we suggest a written task, namely a paragraph on possible consequences of a volcano eruption. The function of modal verbs here is also to express possibility concerning future events so that students have to spot incorrect use of perfect infinitives. Example:

Read the following paragraph with your partner. Some sentences contain mistakes. Take turns to spot and correct the errors in modal verb forms and explain the relevant grammar rule.

The eruption of Hawaii's Kilauea volcano (1) might causes widespread destruction and endanger the lives of residents. Lava flows (2) could destroy homes and infrastructure in the affected areas. Ash clouds (3) may have been spreading, causing respiratory problems and flight cancellations. Furthermore, a volcanic eruption of this magnitude (5) might disrupt transportation systems and impact neighboring islands. Evacuation orders (6) might can be issued for safety purposes. Local authorities should have been providing emergency services and shelters for the displaced residents. Geologists and scientists (7) could have been monitoring the volcanic activity closely. Tourists (8) may have had to be warned and advised to stay away from the eruption zone. The volcano (9) may continue to spew lava and ash for several weeks. If the situation worsens, additional measures (10) should have had to be taken to ensure public safety.

3. Information Gap Exercises. Students can be engaged in information gap activities where they need to communicate and exchange specific geological information. Half of the students can be provided with geological data related to a specific site, and the other half with different data. In pairs, students ask questions to obtain missing information and report their findings to the class. As illustration, we suggest Information Gap Exercise on the consequences for the ecosystem after the explosion of the Deepwater Horizon oil platform in 2010, focusing on modals with perfect infinitives referring to the past, grammar function is expressing possibility concerning past events. Students have to exchange information forming correct grammar structures. Example:

Student (Consequences Set A):

Marine life (could / severely /impact) by oil contamination.

Coral reefs (might/ suffer) long-term damage from the oil spill.

The local bird population (would / experience) negative effects due to oil exposure.

Fishing industries (may / face) significant economic losses.

Student B (Consequences Set B):

Oil dispersants (could / mitigate) the impact on marine life.

Ecosystems (would / adapt) to the changes caused by the oil spill.

The local bird population (may / migrate) to safer areas during the disaster.

Fishing industries (might / recover) quickly after the incident.

Further communicative grammar exercises can include Descriptive Presentations, Role-Play Group Discussions, and Collaborative Problem-Solving:

In Descriptive Presentations, students can be assigned to prepare and deliver oral presentations on geological topics, using appropriate grammar structures, such as descriptive adjectives, relative clauses, linking words, and connectors, to convey their ideas effectively.

Example: to ask students to conduct research and deliver a presentation on 'Air Pollution: the geological factors contributing to air pollution, such as volcanic emissions, dust storms, and the impact of human activities on air quality', focusing on accurately describing geological processes involved and their significance. The speaker can ask listeners for tips of advice on how to solve problems. The Function of modal verbs here will be giving advice, making suggestions, etc.

When it comes to Role-Play Discussions in groups, students can be asked to take on different roles, such as a geologist, a project manager, or an environmental consultant. They can be assigned specific scenarios or case studies that require them to engage in discussions and express opinions using grammar structures appropriate for persuasive arguments and expressing uncertainty.

Example: Conduct a role-play discussion on the pros and cons of a geothermal energy project in a specific geological area. Students should defend their positions using modal verbs, and appropriate expressions. The functions of modal verbs can vary depending on the communicative task (expressing permission or prohibition, obligation or necessity, giving advice, and making suggestions).

Last but not least is Collaborative Problem-Solving, in which geology-related problems or case studies encourage students to work together in groups to find solutions. Example: groups can be assigned a hypothetical geological problem, such as mitigating the risk of soil erosion in the Ukrainian Carpathian Mountains due to the severe deforestation rates in the region. Students are supposed to collaboratively discuss and propose strategies, providing justifications using appropriate grammar structures. A wide range of modal verb functions can be used in their discussions.

Conclusions The role of communicative grammar in teaching English for Specific Purposes (ESP) to geologists is crucial for enhancing their overall communication skills. A solid understanding of grammar enables geologists to expand their vocabulary, improve fluency in oral communication, and construct accurate and meaningful sentences to express their ideas effectively.

The development of meaningful grammar exercises tailored to geologists' needs is essential in higher education. Contextual dialogues, error correction activities, information gap exercises, descriptive presentations, role-play group discussions, and collaborative problem-solving activities provide sound opportunities for geostudents to practice grammar structures while focusing on their professional field in close to real-life situations.

By incorporating the above-mentioned grammar exercises on modal verbs into classroom activities, a teacher can help geostudents improve their ability to ask for permission, grant or refuse permission, ask for advice and give advice, speculate about future and past events, and discuss possible consequences of various natural and human-made phenomena in professional contexts.

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