through public data and applications. When preparing attacks against a network, a hacker usually tries to get more information about it. Network intelligence is created in the form of DNS queries, ping sweep and port scanning. DNS queries help you understand who owns a domain and what addresses have been transferred to that domain. Echo testing of addresses opened with DNS allows you to see which hosts are running in this environment. After receiving the list of hosts, the hacker uses port scanning tools to create a complete list of services supported by these hosts. And thus, "scout"analyzes the characteristics of applications running on hosts. As a result, you can get information that can make an attack. Currently, there are other types of attacks.

It's not hard to see that the above attacks can be possible for a number of reasons:

- first, identify the sender only by its IP address;
- secondly, the identification procedure is carried out only at the stage of establishing the connection-after which the authenticity of the accepted packages is not checked;
- third, important data related to the system is transmitted unencrypted over the network.

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BRAINSTORMING AS AN INTERACTIVE TECHNOLOGY IN THE FORMATION OF COGNITIVE-COMMUNICATIVE COMPETENCIES IN TEACHING DISCIPLINES IN ENGLISH

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Due to the growing professional significance of English in the labour market, the socio-cultural context of its study in non-linguistic faculties of universities has changed significantly. Today, the most productive and promising are modern pedagogical interactive technologies that allow the most complete formation of foreign language communicative competence of students both in the personal-professional aspect and in the cognitive-operational aspect simultaneously [1].

Teaching subjects in English at the faculties of exact sciences (mathematics, physics, chemistry, economics, etc.) is often accompanied by forced memorization by students of a large number of new words related to the new topic, but not related to each other in meaning, as well as lexical and grammatical rules and features of a foreign language. This usually causes rejection, unacceptance and a painful experience of learning English. With this type of study of a professional foreign language, cognitive and communicative competencies are poorly developed in students.

Our brain is designed in such a way that it always wants to be in a comfort zone. In this case, our comfort zone is speaking our native language, no matter how difficult it may be. And limited fluency and use of a foreign (English) language causes mental and physical stress in the learner. And this is despite the fact that students must master, in addition to professional English, the material of the discipline in their specialty, taught in a foreign language.

Considering that the use of interactive methods and techniques in teaching subjects in a foreign language involves social interaction between students and the teacher, interpersonal communication, etc., interactive technologies are one of the ways to solve the above problem in the formation of cognitive-communicative competencies. The goal of interactive learning is to develop the cognitive and communicative abilities of the learner, which will allow him/her to solve the set goals in the future, both in a group and independently. The central goal of interactive learning technologies is communication, and the general goal is development.

One of the main ideas of interactive technologies for teaching professional foreign languages is the transition from explanation to understanding, from monologue to dialogue, from social control to development, from management to self-management, etc. [2] The use of interactive technologies also contributes to more effective teaching of professional foreign languages and the development of intercultural communication in teaching specialized disciplines in a foreign language.

Students studying the exact sciences do not have the same freedom in transforming and describing the studied material of specialized disciplines and in solving problems even in their native language as students of the humanities. Whereas, for students of the humanities, language is the main tool for communication and reaching out to the listener.

Students of the exact sciences rely heavily on existing terms and formulations, so much of the training in professional foreign languages is devoted to already established phrases, standards and cliches. This is one of the main problems of developing cognitive-communicative competencies in students studying the exact sciences.

When teaching subjects in English at the faculties of exact sciences, it is rational to use such an interactive technology as “Brainstorming”.

Brainstorming is a decision-making method that uses small groups as an organizational form, allowing all participants to develop a collective idea for solving a problem, inspire and complement each other, and ultimately generate creative thinking in a free and relaxed atmosphere. The goal of brainstorming is to generate as many ideas as possible. Osborn believed that the more ideas, the greater the chance of obtaining an effective solution to the problem.

Brainstorming can be divided into forward brainstorming (commonly called brainstorming) and reverse brainstorming. The former is a method of stimulating creativity and generating as many ideas as possible in the decision-making process of a group of experts, while the latter is a method of successively questioning the ideas and plans proposed by the first and analysing their practical feasibility.

Brainstorming is a method of collective idea generation that is used in both the exact and human sciences. However, the nature and goals of this method in different fields of knowledge can differ significantly.

In the exact sciences (e.g. mathematics, mechanics, computer science, physics, etc.), brainstorming is aimed at finding a specific solution to a problem. Logic, accuracy, and compliance with established laws and formulas are important here. Ideas are assessed quickly: they either fit the problem or they don’t. This approach requires structure, and creativity is expressed in the search for

non-standard, but strictly justified solutions.

In the humanities such as history, literature, philosophy, etc., brainstorming, on the contrary, encourages a diversity of opinions and interpretations. There is no one correct answer, and each idea can be valuable if it is substantiated. Participants freely express associations, hypotheses, points of view that can be used for analysis, comparison, or discussion. Creativity plays a key role, as it allows you to see the topic from a new angle.

Thus, in the exact sciences, brainstorming is a way to a solution, and in the humanities, it is a way of understanding and discussing. Both approaches are effective if you take into account the goals and specifics of the subject.

In brainstorming, science students rely on discussion and debate, which develops their skills in problem solving and problem solving in a given direction, using the relevant vocabulary of the discipline. If there is a debate and a choice of the right solution within a group or subgroup, the use of the necessary and appropriate professional vocabulary in a foreign language is a necessary requirement. If the problem is solved, students come to the teacher with the result. And the way they came to this result is the task of brainstorming.

Let us consider as an example the use of the interactive technology "Brainstorming" in classes for master's students of the Faculty of Mathematics and Information Technology when teaching the disciplines "Actual problems of classical mechanics", "Professional foreign terminology in mathematics", "Modeling the processes of solids deformation", etc. in English.

The group of master's students is divided into subgroups of 4-5 people. All subgroups sit independently from each other. Each subgroup is given a task (to solve a problem, prove a statement, write an essay on a given topic, create a visual representation (graph, diagram, correspondence, table, etc.) of the described process, etc.). In the case of a small group, the entire group is given one task.

The following conditions are met regarding the content of the task:

- the content of the task corresponds to the new topic;
- the tasks received by each subgroup are different, i.e. each subgroup has its own task;
- the tasks are equivalent (the same) in terms of complexity and labour intensity.

Distribution of roles in each subgroup is following. The teacher, together with the students of each subgroup, distributes such roles:

- moderator – the elected leader of the subgroup, who has the highest level of English proficiency. The moderator determines the rules for accepting ideas and decisions, directs the discussion, prevents criticism, monitors the progress of the task proposed by the subgroup participants, as well as the recording of the completed task. One of the main functions of the moderator is to ensure that the entire discussion on solving the task is conducted in English;
- idea generators – the strongest and most advanced students in the subgroup who develop and propose ideas, choose a method for solving the proposed task, form the integrity and thoroughness of ideas, and direct ideas towards solving the task;
- the executors of ideas refine and strengthen the ideas, apply the chosen method for finding a solution to the problem, implement all intermediate ideas proposed by all members of the subgroup to achieve the goal, carry out, if necessary, mathematical calculations accompanying the applied mathematical transformations, and form the complete final execution of the task;
- secretary – writes down the solution to the task in a systematic form, while paying attention

to details, sharpens, “polishes” ideas, translating them from oral form into written form.

Each participant should not be limited to the functions of his/her role. All members of the subgroup can perform the functions of other participants, except for the moderator role, and participate in the task execution process at any stage of the discussion.

After each subgroup has completed the task, the secretary and the moderator present the solution on the board in front of the entire group with an oral accompanying text in English.

The role of the teacher is to control each subgroup: to direct the work of the subgroups in solving and completing the task, to regulate the involvement of each subgroup member in the process, to support the competitive spirit, to ensure that the students speak only English.

Let us note that the main goal of students when setting up work in the conditions proposed above is to complete the task and formalize it in writing, and not to focus on the fact that this process is carried out in English.

Therefore, the interactive technology “Brainstorming”, applied in the proposed form, contributes to the formation of cognitive-communicative competencies in students, through the use of cognitive processes such as speech, thinking, and writing.

Regular use of the interactive technology "Brainstorming"when conducting classes on subjects in a foreign language forms the cognitive-communicative competencies of students, which is expressed in:

- in increasing their cognitive and creative activity in a foreign language;
- in increasing motivation and developing intercultural communication;
- in emotional involvement in joint activities to solve educational tasks of a lesson in a foreign language.

Thus, cognitive learning in teaching subjects in a foreign language should be understood as a process of improving the cognitive abilities of students, in which their knowledge of professional English and specialized disciplines contributes to the development of a high level of intelligence, the accumulation of practical experience, and the formation of creative potential necessary in new educational conditions.

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РЕФЛЕКСИВНЫЙ ОТЧЕТ ПО ПРОЕКТУ ACTION RESEARCH: УЛУЧШЕНИЕ КАЧЕСТВА ОБУЧЕНИЯ ЧЕРЕЗ ВНЕДРЕНИЕ НОВЫХ ПЕДАГОГИЧЕСКИХ ПРАКТИК

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