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GAMING METHODS OF TEACHING CHEMISTRY TO FOREIGN STUDENTS OF PREPARATORY DEPARTMENT

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In order to increase the level of interest of foreign students of Preparatory Department to learning process, better digestion of educational material, to increase their activity in Chemistry classes, it is necessary to apply 'active methods of teaching' that motivate listeners' cognitive activity.

Active learning involves the use of such a system of methods, which focuses primarily not on students' ready-to-use knowledge, their memorization and reproduction, but on the organization of students' knowledge and learning skills acquisition in the process of active cognitive activity.

Gaming methods of education were used firstly in the 20's and 30's of the XXth century. At that time, quizzes that developed the students' outlook were widely used. Along with the quizzes first board games – 'chemical lotto', 'chemical ruler', which intensified the interest of students and ensured assimilation of chemical symbols, appeared. In the 50's and 60's chemical games in words, research-riddles, chemical fairy tales, storytelling-tasks were used. A special 'game boom' was observed in Western pedagogy in the 60's and 70's of the XXth century.

In didactic literature the problem of practical application of games, their didactic capabilities, unspecified demands to games and rational methods of their use in the educational process remains unresolved.

There are many types of classification of didactic games. V. M. Chaika divided didactic games into role-playing, business, organizational-active and computer [4, p. 120]. In role-playing games, students play fantastic characters, while enriching their perceptions of professional or personal relationships with other people. These games help to solve learning motivation problem.

Business games are classified into educational, production and pedagogical ones. Educational games enable the setting of the context of future professional activity during the process of study. Organizational-active games are used for professional training of specialists, increasing their qualification. Computer didactic games are used for language learning, formation of computer knowledge, study of various disciplines.

In the «Encyclopedia of Pedagogical Technologies and Innovations» [1, p. 133] games are divided into simulation and role-playing. Simulation games solve certain problems, help to acquire procedural competencies. The block of simulation games includes several types. The first type (combinatorial games) is represented by various games, which are characterized by the absence of special game procedures, the

probabilistic nature of the game process, game boards and various chips. These include word games, board games («dominoes», «lotus») and various crossword puzzles, which involve reproductive, part-search or even creative activities. These games are used for speech culture formation, certain concepts of chemical nomenclature knowledge check, etc. The second type represents the variety of quizzes that are used predominantly during fixing, repetition and generalization of educational material. The third type of games is represented by the strategic games. These are more complex games, which, unlike the previous ones, already have a certain role-playing color. Strategic games are used to study new material and gain new experience in non-standard terms and to generalize already studied material.

The peculiarity of didactic game technology lies in its non-standard form of pedagogical interaction as a means of developing of the creative potential of a future specialist. Gaming activity performs the following functions: inductive (causing listeners' interest), communicative (assimilation of elements of communication culture of future specialists), self-realization (each participant of the game shows his own abilities), developmental (development of attention, will and other mental skills), entertaining (receiving pleasure), diagnostic (detection of abnormalities in knowledge, skills and abilities), corrective (making positive changes in personality of future specialists).

Implementation of this method helps to strengthen and check listeners' knowledge and to acquire skills [3, p. 248]. Gaming methods are used at different stages of lecture: informational games – for the introduction of new material (trip-lecture), training games – for the formation of skills and abilities ('dominoes', 'find a mistake', 'who is superfluous?' etc.), games for consolidation and generalization of knowledge (crosswords, puzzles, and rebuses), control games – to check the acquired knowledge (competitions, etc).

Here are examples of didactic games that we use in the process of foreign students teaching.

The game «Hands up». The teacher names physical and chemical phenomena, listeners have to listen carefully. If a chemical phenomenon is called, the student raises his hand up, and if the physical – does not raise his hand.

The game «Microphone». A foreign student, who acts as a reporter, takes microphone and puts questions to the audience from a prepared list (What is acid? What is oxide?, etc.).

The game «Unfinished sentence». The teacher begins the sentence, and the students have to continue it one by one. For example, the atom is...

The game 'What combines these words?' A group of words is given to the students. They need to determine by which common feature they are combined. 1) Oxide, base, acid, salt. 2) Potassium, Calcium, Aluminum, Magnesium. 3). H_2SO_4 , HNO_3 , HCl , H_3PO_4 .

The game 'Intruder'. Students have to define the type of connection between the words of one row and find the extra word. 1) Magnesium, Carbon, Calcium, Aluminum. 2) Zinc oxide, Beryllium oxide, Potassium oxide, Aluminum oxide.

The game 'Missing word'. Students need to establish the relationship between the words and suggest a variant of the word to complete the line. 1) Sodium, Potassium, Copper,... 2) Composition reaction, decomposition reaction, displacement reaction.

Competition game «Lottery». A group of students is divided into subgroups. One of the students from each subgroup draws a lot with the task and number, which indicates the order of the students' answers. Subgroups discuss their questions and find the correct answers. One student from each subgroup gives the answer and gets the score (for example, 1 point) for each correct answer. If the answer is incorrect, the student from another subgroup may receive 2 points for the correct answer.

In groups with Arab students we have «Who is the first?» game during practical activities. The first three students, who solved and arranged the assigned task correctly, receive the mark.

In homogeneous groups (for example, all students are from Jordan or Turkey) we offer students with a high level of chemical and linguistic skills to act as a teacher, explaining the topic in their mother tongue to those students who did not understand the learning material. Another option: during the practical activities «high-achieving foreign student» explains the previous topic for the entire group in Ukrainian. We also use this option in a heterogeneous group (students are from different regions of the world, with different initial levels of chemical knowledge, with varying abilities to learn the educational material).

So, the game, of course, is not a leading activity, but a good means to enter into creative activity, especially for regions with a low level of development. It contributes to three main tasks solving:

- 1) increasing the interest in the subject and in auditorium activities;
- 2) the creation of a relaxed psychological atmosphere in the group, and, consequently, the formation of personal traits of character;
- 3) abandoning by teacher the authoritarian style and formation of a personal style of communication.

Dialog mode takes place in the classroom during introduction of games into the learning process. The dialogue that appears during the lecture gradually evolves into student's dialogue with himself.

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