Promising directions for improving the quality of students' knowledge on the subject "Chemistry»

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In the traditional system of teaching the discipline "Chemistry" in a technical university, the passive method of teaching is used as a method of transmitting information. Currently, the main methodological innovations in the presentation of the discipline of "Chemistry" are associated with the use of interactive methods, case studies, business games, etc. [1]. The above-mentioned educational methods often ignore the development of students personal components: motivation, leadership, communication skills, ability to cooperate, etc. The old motivational schemes in modern life are no longer working. The world around us is changing rapidly. Therefore, when studying the discipline "Chemistry", it is necessary to use new directions. One of these areas is gamification. Gamification is the process of using the dynamics of games and game thinking in non-game processes to increase the audience's enthusiasm for solving applied problems, acquiring knowledge, skills and abilities [2]. Gamification allows students to develop their personal and communication skills in a harmonious way. It is useful to combine traditional forms and methods of teaching students with elements of gamification. The techniques and principles on which the games are built can also be used in the study of the discipline "Chemistry" . The assimilation of information or the performance of any actions in a playful way, with increased emotional involvement, is much faster and better. Elements of gamification in the study of the discipline "Chemistry» are the following: a) splitting information into "levels"; b) access to a new level, only after mastering the previous material; c) visual display of success-points, badges, graphics; d) competitive element, etc. The use of these and other elements in video games allows you to consolidate and develop knowledge, give the necessary practical experience, makes the learning process more interesting and exciting. The use of gamification in the study chemistry will ensure safety and reduce costs because chemical reactions and processes will take place in a virtual environment. According to Russian experts, in the coming years, gamification will be one of the main educational directions not only in Russia, but also in the world [3].

References

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