



THE IMPORTANCE OF USING INTERACTIVE TASKS IN IMPROVING CHEMISTRY TEACHING

Khurshida Khasanova

Navoi Regional Center for Public Education and Training,
doctor of philosophy(PhD)

x-xasanova1989@inbox.uz

Article history:	Abstract:
Received: September 28 th 2021 Accepted: October 30 th 2021 Published: November 30 th 2021	Chemistry is one of those sciences that has penetrated into almost all spheres of human life, is considered the basis of many scientific discoveries. Students need to present the theoretical foundations of the subject scientifically and qualitatively assess the level of assimilation of the acquired knowledge. When teaching a subject in an exciting way, creative tasks based on interdisciplinary connections and life skills should be used.

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At a time when new forms of current techniques and technology are constantly improving, one of the key categories of the teaching process is the growth of a person's worldview and intellectual potential in step with the times, i.e. lifelong learning. Knowledge learned in the twenty-first century must not only be memorized, but also applied to difficulties that arise in daily life and during the manufacturing process.

The President of the Republic of Uzbekistan's Decree "On steps to further strengthen the system of training, retraining, and advanced training of public educators" is one of the education reforms adopted in the country in recent years. In accordance with Resolution 3982, it sets such urgent tasks as ensuring the continuity and consistency of educational stages, creating a modern methodology of education, improving state educational standards on the basis of a competency approach, developing and implementing a new generation of teaching materials.

LITERATURE REVIEW.

Among educators, the role of school teachers is unique in shaping and maintaining each link in the product-to-product chain. In order to effectively organize the work of the teacher, he must work tirelessly, be able to obtain the necessary information from various sources, improve it in accordance with the subject and apply it in accordance with the old approaches. At a time when almost every home has modern computers, unlimited access to the Internet, the teacher teaches students who can acquire the necessary knowledge of science around the world at any moment. must have good capacity and preparation to give.

A.A. Brudniy, M.A. Akhmetov, A.N. Lyaminin contextual textual assignments, A.S. Rayeva and N.A. Nakhova use of situational assignments in chemistry

lessons, N.A. Zagranichnaya chemistry S. Bakir conducted research on the use of complex tasks, including interdisciplinary links, assignments in the form of letters, A.A. Jurin in the form of fairy tales.

RESEARCH METHODOLOGY.

When the problem of spiritual, intellectual and creative development of the student's personality is analyzed as a priority through the implementation of skills, activities and concepts, their psychological sensitivity, the ability to comprehensively perceive objects, processes and ideas as a whole, with logical reasoning. It is necessary to jointly determine the solution of the problem on the basis of the sequence "Thinking-Analysis-Conclusion" on the basis of solidarity, to be able to express the conclusion in a creative and interesting way.

Chemistry is penetrating almost all areas of human life. The components of the means of nutrition, clothing, production, movement, leisure, which are the basis of many scientific discoveries, the spacecraft that conquer the universe, the construction of high-speed submarines that move at high speeds under the infinite ocean, the astronauts in space breathing is one of the sciences that studies the clothes they wear, the fuel counted as a means of movement, and more. Modern teaching methods should be used to convey to students the importance and scope of this interesting science, to acquire scientific knowledge of the science, and to analyze problems.

Among the interactive teaching methods, the use of didactic tasks is one of the most convenient ways to effectively organize a modern lesson. Didactic tasks in chemistry lessons are a mechanism that presents and accumulates social experiences in practice on the basis of established norms and rules in different situations. The purpose of using interactive tasks in chemistry

lessons is to fully involve students in the teaching process not only through the acquisition of knowledge, but also through the practical application of the acquired knowledge. Through the use of interactive

tasks in chemistry lessons, the teacher can achieve the following

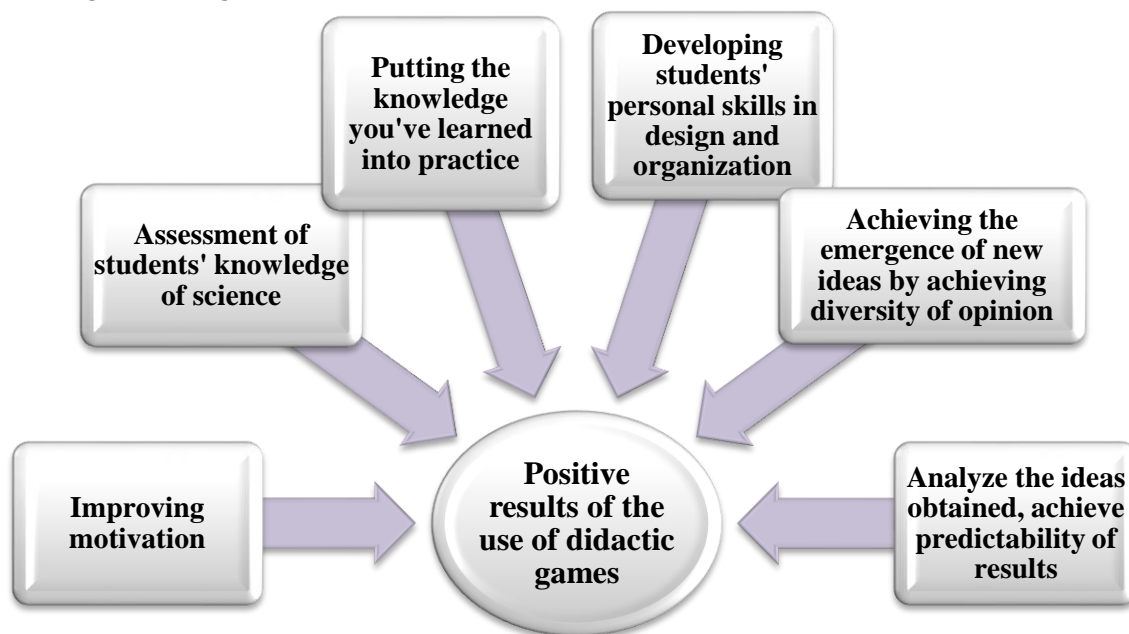


Figure 1. Achievements of the teacher through the use of interactive tasks in chemistry lessons

An interactive task is a task that combines interdisciplinary connections and life skills, has a slightly complex structure, looks creative and attention-grabbing, and the solution lies not in memorized knowledge, but in conclusions based on understanding and logical thinking. Such assignments can be used simultaneously in different parts of the lesson. Chemistry, with its complex chemical theoretical rules, formulas, and reactions that are

difficult to remember, is considered by many students to be one of the most difficult subjects to master. However, replacing routine, monotonous assignments with new interactive assignments will increase their interest in the lesson and lead to a more relaxed and positive attitude towards the subject. The following are examples of a number of interactive tasks described above.

ANALYSIS AND RESULTS.

Level 1 assignment. Separate the following interlocking letters in such a way that the resulting chemical terms are formed.



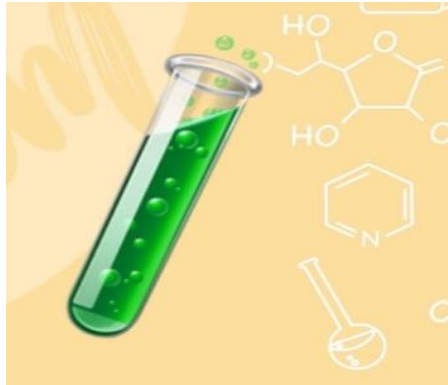
A)Natriyolkalttinsiykualyutemushminiymir

(This puzzle is related to the Uzbek language)

B)kisvodlorodorodseoltilengugurtmodjisdam

(This puzzle is related to the Uzbek language)

Level 2 assignment. Use the numbers below to identify the substances that interact and react. The numbers in parentheses indicate the indices.



C) $7 + (3) 1 = ?$, $(2) 1 + 8 = ?$:

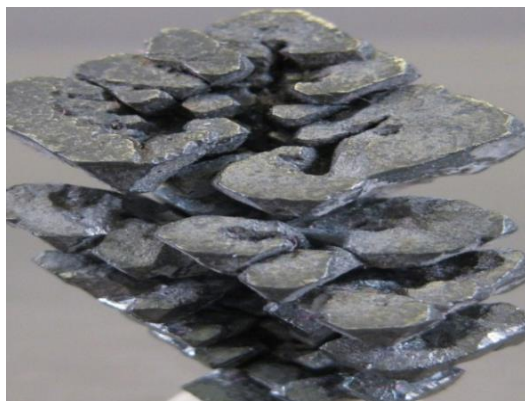
D) Determine the relative molecular mass of the complex substance obtained as a result of the interaction of the substances formed as a result of the above chemical process.

In Task C, nitrogen and hydrogen interact to form ammonia. In Task D, hydrogen and oxygen interact to form water. The interaction of the two substances produces NH_4OH . It has a relative molecular mass of 35.

Level 3 assignment. Identify an unknown element. This assignment contains three pieces of information.

After Task 1, the student is given a sample grade, after Task 2, a good grade, and after Task 3, a satisfactory grade. When creating this type of assignment, the first piece of information should be more vague, the second piece of information should be relatively close, and the third piece of information should be very easy to find.

A) Identify the element



Fact 1. The element that forms the basis of the mineral pictured is found in the human brain.

2. It is mainly monovalent in metal compounds.
3. Conducts electricity and heat well.

B) Identify the substance



1. The boiling point of this chemical compound is 56°C .

2. Its chemical structural formula contains 2 pi and 6 sigma bonds.

3. Ushbu moddani



Level 4 assignment. Find a solution to the problem. It is no secret that many chemical elements are found in the human body. Below are two metals with similar properties, one is a cation found inside the cell and the other is a cation found outside the cell. Identify the commonalities between these two elements.

Answer: The metal cation found in the intracellular fluid is potassium, and the second cation is sodium. Common features of these elements are:

1. Both elements are metals and alkali metals.
2. Both metals are in the first group and are monovalent in their compounds.
3. Both metals react with water to form alkalis.
4. Both elements have 1 electron in the outer shell.

Assignment 5. Complete a challenging task on how to apply chemical knowledge in everyday life.

There are many important phenomena in nature that can be explained by chemical processes. We encounter them almost every day in our daily lives. There are two phenomena in nature that occur in a chemical process in the presence of oxygen. In the first, oxygen is released, and in the second, oxygen is attached to the substance. The first process helps to sustain the vital functions of almost all living organisms, while the second process results in the deterioration of many household items. Identify the processes.

Answer: Process 1 is photosynthesis and process 2 is corrosion.

There will be students in the class with different intellectual potential. Although the teacher explains the topic to everyone at the same time and in the same way, the level of mastery of the students will be different. An important aspect of the interactive tasks listed above is that they are structured in varying complexity depending on the level of knowledge of the students in the classroom. Assignments are different from traditional assignments in that they have a unique look and structure. Several different types of assignments are prepared and explained to students.

There is a choice, and students choose assignments based on their ability.

CONCLUSIONS AND RECOMMENDATIONS.

As a result of such interactive tasks, students develop their scientific knowledge, have the opportunity to apply and improve their knowledge in practice. In addition, the students' activities create a favorable psychological climate in the classroom, they are able to interact with each other and with the teacher

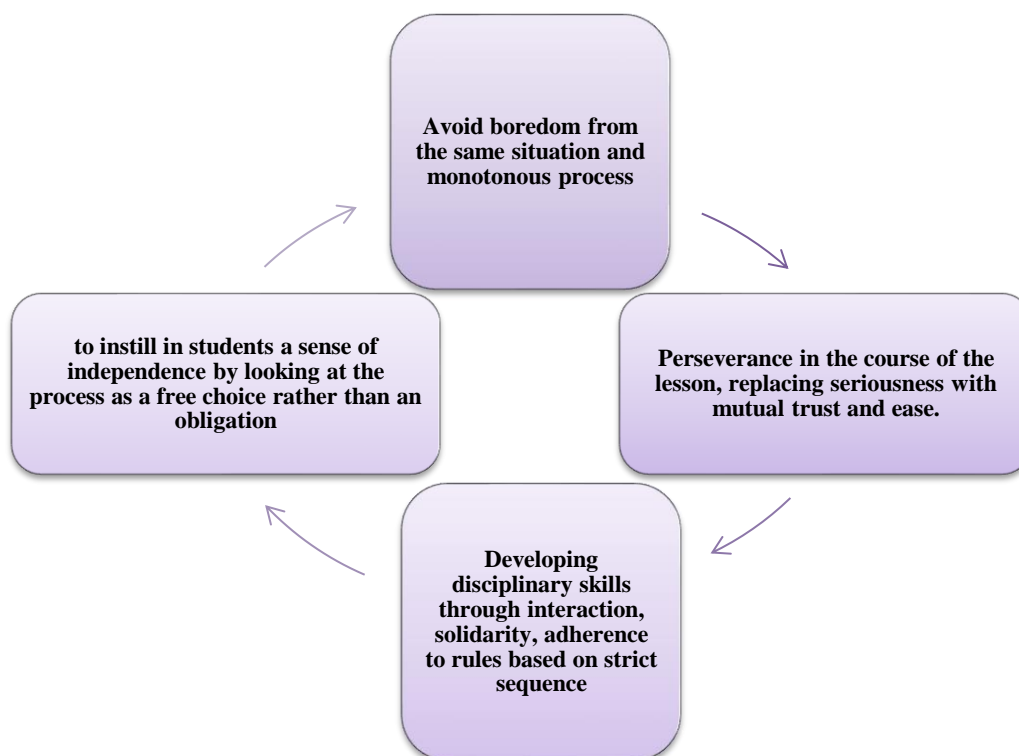


Figure 2. The following additional results can be obtained by using interactive tasks in the lesson. Based on the ideas of the famous Polish philosopher Tadeusz Katarbinski, an inquisitive teacher who is a master of his profession can teach his students even things he does not know. Because the result of each activity is analyzed, and then the person has his own impressions, from which appropriate conclusions are drawn. It is the student who acquires the essence of the methods of observation, comparison, analysis and inference that acquires new knowledge. The role of new interactive tasks in this process is invaluable.

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