



The Role of The Teacher in Shaping Students' Interest in Chemistry Through Connection with Life and Other Sciences

Saydullayeva G.A

Tashkent Medical Academy, Teacher of the Department of Medical and Biological Chemistry

Tojiboyeva I.M

Tashkent Medical Academy, Teacher of the Department of Medical and Biological Chemistry

Ro'zikulova Sh .A

Teacher of chemistry at school 44, Payariq district, Samarkand city

ABSTRACT

The article is devoted to the definition of purpose, object, problem and subject of research. This article will consider cognitive, value orientations that are formed in the process of studying chemistry.

At the same time, the main goal will be not only to study chemistry, but also its role in wildlife, as well as the integration of chemistry with such vital subjects as knowledge of the world, biology, physics. The process of implementing the principle of connection with the life of the subject of chemistry develops in students the concepts of handling substances, environmental standards.

ARTICLE INFO

Received: 8th December 2023

Revised: 7th January 2024

Accepted: 10th February 2024

KEY WORDS: The principle of learning, the connection of the subject with life, chemistry, physics, biology

Consideration of such problems as the formation of students' interest in studying chemistry based on the principle of connection with life arose because in psychology such a concept as interest is used as a motivational sphere and is the first, important step for the formation of new knowledge.

Some textbooks and applied chemistry programs do not pay enough attention to practical exercises in order to reduce the volume of the program. Such knowledge and information do not have any meaning for students and are perceived as unnecessary in their future lives, and all this leads to the fact that the teacher cannot encourage students to engage in learning activities.

Every teacher knows that there are such situations as: a child is lazy, but can study well, and treats everything irresponsibly. There are students who ask the question "Why should we study the subject?" This question is very simple for them, but for the teacher it is quite a complex question. The answer to this question is given by the lesson being taught. In the initial periods, when students are just beginning to study chemistry, no teacher can claim that students have no interest in the subject of chemistry. The older the children, the more interest in the subject of chemistry weakens.

So, as the subject is very difficult in the process of learning, so students start to feel afraid of the subject and this is the reason why students lose their motivation. Therefore, the whole process is accompanied by the fact that students show poor results

Every teacher wants his students to show interest and desire for his subject. In order to get results, you need to create an educational environment that motivates students. To do this, the teacher must use different forms of teaching. It is necessary to use creative application, to structure work with

students so that the level of tasks increases with complexity, constantly. It all depends on how the teacher will organize the educational process.

Then the question arises: How to show students' interest in the subject of chemistry?

First of all, both the students and the teacher must have motivation for the learning process.

Motivation is the means, methods, forms that provide students with productive initial information. Each teacher can use these forms, methods, teaching aids based on the theme of the psychological picture of the class and the topic of the lesson.

By conducting various practical classes and connecting the subject of chemistry with such life subjects as biology, physics, and knowledge of the world, the teacher will be able to motivate students and show their interest in the subject.

Let's say the teacher can show the connection between chemistry and biology in studying the topic "Acids", while showing pictures of different sour fruits, using the brainstorming method, he can give an initial idea about acids. The teacher can show the connection between chemistry and physics when studying the topic "Thermal effect and heat of formation", the connection between chemistry and knowledge of the world can be applied in the study of "Initial concepts of chemistry", from the course knowledge of the world the teacher can ask the question: "What is body and matter", students who answer this question will be motivated towards the topic.

Let's look at examples of chemistry lessons connecting them to life. As you know from a biology course, you know what photosynthesis is. This is a process in which cells that contain chlorophyll, when exposed to sunlight, form organic substances from inorganic substances. By inorganic substances we mean water and carbon dioxide, and organic substances are glucose (sugar) and oxygen is released as a by-product.

The section on the topic "Hydrocarbons" is carried out in high school (grades 10-11)

At the same time, the teacher reminds students that the main natural ores of our country are oil and gas. Oil contains hydrocarbons, which include:

1. Paraffins
2. Naphthenes
3. Aromatic hydrocarbons
4. Saturated and unsaturated carbohydrates

There are also oils that contain low, medium and high amounts of sulfur.

Another example in high school can be given when studying the topic "Proteins, Fats, Carbohydrates." At the same time, the teacher explains to students that all these compounds are contained in the food products that we constantly consume. For example, protein is found in cheese and eggs; carbohydrates are contained in buckwheat and pasta; fats are contained in butter, cream, etc. By giving these examples, the teacher makes it clear how important chemistry is not only in human life, but also for all living organisms.

The process of teaching chemistry will give an effect and reveal interest in chemistry if, during teaching, the taught principle is clearly implemented, connecting the subject with life factors.

To get the desired results, you should solve the following problems

1. Consider in detail the problems of student motivation for the subject, connecting chemistry in chemical methodology, psychology, and pedagogy.
2. A set of means through which opportunities can be created to attract students to chemistry.
3. When applying data related to life, the development of chemical techniques.
4. On the learning effect and development of cognitive interest, an experimental determination of the action, which has been identified in science in chemical techniques, connecting it with the factors of life.

To solve these problems we can use the following research methods:

1. Drawing up (modeling) the essence of the lessons
2. The process of observing the educational process
3. Conducting a pedagogical experiment
4. Processing of research results

Bibliography

1. General and inorganic chemistry: textbook / Ed. Denisova V.V., Talanova V.M. – Rn/D: Phoenix, 2018. – 144
2. Suvorov, A.V. General and inorganic chemistry in 2 volumes: Textbook for academic undergraduates / A.V. Suvorov, A.B. Nikolsky. – Lyubertsy: Yurayt, 2016. – 607 p.
3. Engels F. Dialectics of nature. - Marx K., Engels F., op. 2nd ed., vol. 20, pp. 343-626.
4. Ilchenko V. R. Crossroads of physics, chemistry and biology. – M.: Education, 1986
5. Antonov N.S. Interdisciplinary connections of measuring complexes of natural science disciplines in secondary school: Abstract of dissertation. Candidate of Pedagogical Sciences M., 1969.
6. Baturina G.I. Interdisciplinary connections in the process of teaching the basics of science in secondary school. Soviet pedagogy, 1974, No. 5, pp. 153-156.
7. G.M. Methods of teaching chemistry in secondary school: Proc. For students Higher Textbook Establishments / G.M. Chernobelskaya. – M.: Humanite. Ed. VLADOS Center, 2010
8. Vaitkevicius Yu. Development of knowledge in the process of learning new subjects by students of U-UH classes: Author's abstract. dis. .candidate of pedagogy Sci. M., 1961.
9. Vorobyov G.V. Interdisciplinary connections in the learning process.