

IMPROVING COMPONENT PARTS OF CHEMISTRY LESSONS

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Abstract. *In this article, the components of chemistry classes used in practice are analyzed, and the theoretical and practical issues of their improvement based on the structure, content and modern approaches of the current chemistry teaching process are highlighted.*

Keywords: *teaching process, structure, content, chemistry teaching, composition of chemistry lessons, improvement.*

The correct and active organization of students' activities in the lesson, the successful achievement of the goal in the lesson depends in many ways on how to organize the components of the lesson. That is why many didacts and methodologists are working on continuous improvement of the components of the lesson [1-10].

Each chemistry lesson consists of several interrelated elements:

1. Determining the education provided to students;
2. Start the lesson, check students' knowledge and skills;
3. Learning new material;
4. Generalization and systematization, strengthening of knowledge and skills
5. Giving homework.

In the manuals on the methodology of teaching chemistry, the lesson elements are not described in the same way.

All chemistry classes require the use of educational tools. The concept of educational tools is found in Uzbek language manuals in different ways. In I.N. Borisov's "Chemistry Teaching Methodology": (1964) it is given as "equipment", some methodist-chemists use "instructions", "manuals", "educational tools". Although the concept of "educational tools" almost matches our opinion, it is appropriate to use this part of the lesson as "educational tools".

The part of the lesson "Checking students' knowledge and skills" is not presented in the same way in the literature. For example, in the methodological manual of N.E. Kuznetsova, it is used as "repetition", and in other sources it is used as "asking". In our opinion, this part of the lesson should not only consist of asking, repeating or checking homework, but should generally serve as a basis for acquiring new knowledge. In this, students' knowledge and skills are checked and restored. Asking refers to verbal responses only. When students' knowledge and skills are determined, students can give written practical answers, make graphs and forms, and work with knowledge sources. Therefore, it is better to call this part of the lesson "testing students' knowledge and skills".

The opinion of the authors is not the same even in the most basic part of the lesson - learning new material. In N.E. Kuznetsova, it is called "transition of new material". Learning chemical knowledge cannot be limited to "passing" or the teacher's oral presentation. In this case, the study of new material is carried out together with educational tools of various contents, working with sources of knowledge, performing a certain amount of independent and practical work. Taking this into account, it is appropriate to name this element of the lesson as "learning new material".

Checking the knowledge and skills of students.

This is what we officially called the beginning of chemistry class. In general, at the beginning of the lesson, the student should be ready for it, be ready to complete a certain amount of educational work during the lesson.

At this stage of the lesson, attention should be paid to the degree to which the students' workplace is ready (preparation of textbooks, notebooks, etc.).

It is not necessary to start all lessons in the same way, repeating the previous topic, checking the knowledge and skills of students. The teacher spends about 20 minutes to determine the knowledge of students, during this time he has time to determine the knowledge of only 2-3 students. It's hard to know what other students in the class are doing.

When the lesson is organized in this way, the acquired knowledge and skills of the students cannot be combined with the assimilation of new knowledge, and it cannot serve as a basis for the assimilation of new knowledge.

If the teacher does not activate the activity of students during the lesson, if he does not involve them in the process of acquiring new knowledge, cooperation with the class will be lost.

If more students are evaluated in the lesson, there is less time to learn new material. Therefore, the idea arises that it is necessary to always start the lesson by checking the knowledge and skills of the students. There was a need to find effective ways to start classes.

Based on the direct experience of our teacher for more than 20 years, we recommend the following ways to start a lesson.

- 1) from checking the knowledge and skills of the students of the lesson:
- 2) individual request;
- 3) gross inquiry;
- 4) getting written work;
- 5) work with knowledge sources;
- 6) you can start by checking your homework.
- 7) from learning new knowledge (material):
- 8) working with a textbook;
- 9) working with chemicals;
- 10) work with the periodic table;
- 11) application of technical means;
- 12) working with a computer;
- 13) analysis of pictures of different contents;
- 14) new knowledge can be explained using illustrations;
- 15) from discussing the results of observation:
 - tour results;
 - results of observation of chemical experiment;
 - one can start by discussing the results of observing chemical phenomena in nature.
- 16) read additional information:
 - information on chemical science and industry from the timely press;
 - chrestomatous materials;
 - you can start by reading a piece of fiction.

If the chemistry lesson is properly organized, if it starts correctly, the students' activities will be directed to effective activities. The most important thing is that the lesson will be used

efficiently and effectively. Successful mastering of new material also depends on appropriate and correct examination of students' knowledge and skills, which are the basis for new knowledge. When checking, attention should be paid to the main materials: students' worldview ideas, theoretical issues (general concepts, principles, laws) and facts, as well as educational methods.

Some teachers spend valuable time in the class preparing teaching materials, determining attendance, and bringing the student to the blackboard to show some chemical objects. Before the teacher enters the classroom (before the lesson begins), it becomes a habit for the student on duty to determine the attendance of the class and prepare a "report" written on a small piece of paper on the teacher's desk.

Learning new material. Studying new material is the most important part of the lesson, it is advisable to spend about 30 minutes on this part of the lesson.

The content and volume of the new material is defined in the program and is specified in the textbook. If we assume that the basic theoretical knowledge (concept, knowledge, skills, laws and principles) as well as activity methods are clearly indicated in the existing chemistry program, the program should serve as a program for the teacher's preparation for the lesson.

In this part of the lesson, students get new knowledge, learn the rules and acquire a certain number of skills and competencies. In the process of learning a new material, the teacher is required to make effective use of various educational tools, chemical information sources, and various methods of educational methods.

In the words of Professor G.M.Chernobelskaya, if the part of learning a new material is a large work, the creator of the work is the chemistry teacher. The good acquisition of new material by students depends on the activity, organization, experience and skill of the chemistry teacher.

Studying a new topic based on students' previous knowledge and experience, which serves as a basis for new material, will give good results. Homework may not be needed if new material is learned effectively in class.

Learning of new material in the chemistry lesson is mainly carried out in two ways: 1) knowledge is given to students with the direct participation of the student, using various educational tools and applying various educational methods; 2) the activity is activated by the initiative of the teacher, the material is studied independently by the students, the students contribute to mastering the new material. The knowledge acquired by the student himself by striving and searching will be thorough and valuable, they will be kept in the memory for a long time.

When learning new material, the main educational tool after the teacher's illustrated explanation is the textbook. The textbook is the main guide and source of knowledge for the student. Based on the program, the teacher must clearly define the main learning material that students must master, as well as auxiliary materials that help to reveal the main issue.

Studying new material expands and deepens students' knowledge, reveals the essence of studied phenomena, clearly shows the practical importance of chemical knowledge and skills. New material is learned when it is divided into logical parts and connected to each other.

It is desirable to learn the new knowledge learned in the lesson on the example of materials of chemical science and industry of our country. Before starting to learn new material, the teacher introduces students to the content of the material. In the lesson, students must clearly imagine what knowledge, skills, and rules they will learn. For this purpose, it is required to recommend the study plan of the subject.

Generalization and systematization (consolidation) of knowledge and skills - allows to study the characteristics of students, if the knowledge and skills learned in the lesson are not summarized and systematized, the learned material will be removed from the memory of students. Consolidation of the topic develops students' speech. Strengthening can be done in several ways.

Students' knowledge is usually strengthened when new material is learned. Reinforcement is new. it can be carried out in the process of studying the material. The purpose of reinforcement is to determine the extent to which students have acquired knowledge and skills, which learning methods have been newly acquired, and which have been improved.

Consolidation is carried out by giving students various tasks. Tasks can be aimed at restoring new knowledge or applying knowledge in a new situation. For example, "Tell me the main deposits of non-ferrous metallurgy in Uzbekistan. The knowledge and skills of the students are included in the system while performing the practical work required by the program. At the same time, theoretical knowledge is strengthened and developed.

Assessment of students' knowledge in chemistry class. Assessment of students' knowledge is a component of the pedagogical process and is one of the main factors that activates students' learning activities. The assessment given to students makes them interested and increases their responsibility for studying. An insecure caregiver encourages students to believe in their own strength and learn with enthusiasm.

The assessment of the students' knowledge is an indicator of their knowledge, and it determines to what extent they have mastered the new material and what else needs to be worked on. The assessment of students' knowledge is the result of the activities of teachers and students.

In which part of the lesson is it appropriate to assess students' knowledge?

Most teachers assess students' knowledge mainly after reviewing previous material before learning new material. In this case, the graded student can be careless and passive at the stage of learning new material, and can calmly go without doing homework until the time comes to determine his knowledge.

However, it is not possible to determine the level of knowledge and mastery of students just by asking about the past topic. It is difficult to determine the student's real knowledge by evaluating the student's knowledge based only on the completion of homework. Because it is possible that another person helped the student in completing the assignment given at home (for example, in solving a problem).

Therefore, it is appropriate to evaluate the knowledge of students taking into account their activity in the entire lesson process. Assessment of students' knowledge throughout the entire educational process provides an opportunity to better study their unique characteristics.

Students' knowledge, the degree to which they have mastered knowledge and skills that serve as a basis for new material throughout the course of the lesson; participation in learning new material (new knowledge and skills) and acquired knowledge and skills; It is appropriate to evaluate at the end of the lesson, taking into account the content and weight of the independent and practical work performed during the lesson. In this way, the assessment allows to determine the real standard of knowledge and skills of students, to make students work actively in the whole lesson process.

Giving homework. Homework is an integral part of the lesson, it requires proper organization. Homework strengthens students' knowledge, teaches them to work independently, develops mental activity, and educates them to be responsible.

When assigning homework, a certain procedure - rule must be followed. If the new material is not mastered enough, at the same time, if the homework is given without guidance, such homework will be an excessive burden on the students, and even such an assignment may not be completed. Therefore, it is necessary for students to understand the content of homework and the ways of doing it.

The analysis shows that the priority of which component of chemistry lessons can be improved depending on the educational content, the teacher's goals and tasks.

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