DIFFERENTIATED CHEMISTRY TEACHING



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Annotation.

This article is devoted to the consideration of chemistry teaching differentiated technology. It is considered the principles of dividing students into groups, as well as the requirements for the content and form of tasks in chemistry. It is shown that this technology use helps to increase the students' motivation.

Key words:

Methodology, chemistry, differentiation, training level, multilevel tasks, motivation.

The objective reality of our time is the necessity to use effective teaching forms and methods. New teaching forms and methods can provide motivation for learning, cooperation and effective feedback between teacher and students, the o effective management possibility of the educational process. To achieve the goals set for the school, it is necessary to improve and find new teaching methods, pay great attention to the increasing the teaching effectiveness.

The teacher must not forget that the child needs a help to achieve results in educational activities, and for this it's necessary to create success situations. The use of the success situation should contribute to improving the knowledge quality of the educational material, and also help students to realize themselves as a full-fledged person [1].

Therefore we are faced with the task of how to organize the educational process in chemistry, so that children with different mastering level of educational material and temperament master the uniform education standards.

One of the most important links in the chemistry teaching process is the students' cognitive activity activation, the development of their attention, memory, thinking, speech, as well as stimulating interest in the subject study, possibly also the profile choice focused on the particular subject study, in the students' profile education at the senior level. The correct organizational forms, methods and methodological techniques combination, contributing to the students' comparatively elementary formation, scientifically correct ideas and concepts about objects and phenomena occurring around us, ensures a systematized stock accumulation of basic chemical knowledge, which, in its turn, become the basis for new concepts, judgments and conclusions, revealing, in a volume accessible to students, the basic life laws and the organic world development.

One of the possible ways of forming success situation in the student's educational activity is the work organization of a chemistry teacher, which takes into account the students' individual characteristics. The most optimal result in this situation will be given by the differentiated learning technology. The differentiated educational process principle is the best way to contribute to the students' personal development implementation and confirms the essence and general secondary education goals [2].

Differentiation translated from the Latin "difference" means division, whole stratification into parts. Differentiated teaching is the educational process organization form where a teacher, working with students, takes into account their characteristics. Learning differentiation (a differentiated approach to learning) is the learning conditions variety creation for different classes, groups in order to take into account their characteristics. And the differentiation goal is to educate everyone at his capabilities, abilities, and characteristics level.

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Differentiation in the chemistry teaching process assumes that the students division into groups will also be used, based on some features, which will be carried out for the next grouping, thus it can be assumed that there is integration in differentiation, which is expressed in the students uniting process. With all this, it should also be taken into account that the students separation, as well as their subsequent unification, can be obvious, i.e. each group will be clearly defined and separated from each other, but also not explicit, i.e. when the boundaries will be erased or blurred, which will allow group members to move freely [3]. The division into groups is carried out, first of all, on the achieving criterion the compulsory training level.

Dividing students into groups –is one of the most essential differentiation signs, but as it turned out in practice, not the only one. Another no less significant point is also the differences in the learning process construction in some groups. In differentiation, a prerequisite is that the learning process must necessarily change. This position is confirmed by practice facts in pedagogy, when different levels classes of children preparation were created without any changes in the educational process, which in turn did not lead to any result, since the students lacked motivation to master new knowledge. It in order, finally, to give a clear concept to the definition of "differentiation" is required to solve one most important question - about the signs that will form the basis for dividing students into groups. These are each student characteristics, on the basis of which the grouping will take place in the differentiation conditions.

Most often, there are three groups of students.

First group students have gaps in program material knowledge, they can independently do tasks in one or two steps, performance of more complex tasks begins with blind tests, and they do not know how to conduct a purposeful search for a way to complete the exercise. This group may include students with knowledge gaps and developmental delays due to frequent absences due to illness, due to systematic poor preparation for lessons.

Second group students have sufficient program material knowledge and can apply them in solving standard tasks. Difficulty moving to a new exercise type; do not cope independently with complex (atypical) tasks solution.

The third group consists of students who can reduce a complex task to simple actions chain, independently master new material, find several ways to complete the assignment.

In chemistry differentiated teaching technology pay great attention to the assignments content and form for training and control work. The educational material is selected in accordance with the students' intellectual development level [4]. Tasks are given taking into account the increasing difficulty and complexity principle.

- A level. Memorization and reproduction. Work by sample. The use of informative cards which includes a theoretical block and detailed instructions for assignment completing.
- B level. Work according to a ready-made scheme, an algorithm. Partial search tasks, including comparison, selection of independent examples.
- C level . Creative knowledge application in an unfamiliar situation and the answer to a problematic question. Independent search and analysis of information.

The active introduction of differentiated teaching technology in chemistry education is possible in two conditions: 1. Methodological assistance to the teacher in the multilevel assignments development for each lesson stage. Bank of ready differentiated tasks, included in the educational and methodological kit for each subject, will be an incentive for the teacher to work in this technology.

2. The students division into levels will be carried out not only at the teacher initiative, but also by the students and parents request.

Organization of a differentiated approach allows learners to realistically assess opportunities, and also see self achievements. As a result interest in the subject increases, partnerships are established between teacher and learners, the students' psychological stress in the classroom is reduced.

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