

## **Assessment and supervision of students' independent work in chemistry at higher school**

A. M. Stikhova

FGBOU VO F. F. Ushakov State Maritime University,  
Russia, Novorossiysk, e-mail: [stihova.am@mail.ru](mailto:stihova.am@mail.ru)

In practice organization of students' independent work does not correspond to present requirements; and experience of its traditional educational modal cannot be used. Present-day methods of students' independent activity assessment are not synonymous in assessment parameters. Even more than that, they are very time-taking at the stage of mathematical processing their results. Solving of the problem should be found in theory of gnoseology, methodology of cognition. All the investigations carried out were performed on the methodological bases of theory of activity. In the process of practical realization of this methodological approach to the essence of independent work the missed member reveals itself: it is insufficiently elaborated theoretical foundation that could become the basis of effective students' independent work in a subject teaching, including chemistry. New approach to independent work is possible along with developing theory of independent work on the basis of interdependence methodology of integrative-differential approach to the process of teaching.

Examining of independent work from the point of view of correlation of integrative / differential approach to teaching chemistry at high school puts it into a new category level and promotes for the development of its theory expressing its integrative / differential essence. However, taking into consideration essence of chemical knowledge, special attention should be paid to means and mechanism of mastering them in the process of students' independent work. In this respect it is necessary to investigate differentiation / integration processes from the point of view of universal law of development. Many-level system of organizing assessment and control of students' independent work while teaching chemistry at high school is created on the basis of differentiation/ integration theory of development.

The methodic system proposed by us includes assessment system of independent work itself in contrast to traditional assessment of only its (final) product – knowledge and skills in the subject. Requirements to types of independent work as well as parameters and criteria of their assessments are elaborated in compliance with engineering-ecologic profile on the given discipline. This created system of students' independent work assessment and control provides not only landmarks for individual activity but also possibilities for its more objective self-estimation and self- control.