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## PROBLEMS OF COMPETENCE IN CHEMISTRY

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*Abstract.* The problem of competence, as in all disciplines, is in chemistry. This article deals with the competence of a chemistry teacher. This is one of the problems facing chemistry teachers. The article provides detailed information about the problem.

*Keywords:* subject chemical competence, self-education, achievement motivation.

## ПРОБЛЕМЫ КОМПЕТЕНТНОСТИ В ХИМИИ

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*Аннотаци:* Проблема компетентности, как и во всех дисциплинах, находится в химии. В данной статье рассматривается компетенция учителя химии. Это одна из проблем, с которыми сталкиваются учителя химии. В статье представлена подробная информация о проблеме.

*Ключевые слова:* предметная химическая компетентность, самообразование, мотивация достижения.

The modern realities of the world and domestic educational space, due to the dynamics of scientific, technical, economic and social processes, require teachers to have high professionalism, mobility, developed communication and

organizational-active abilities and set the tasks of forming and improving the professional competence of teachers as in the system of additional professional pedagogical education, and through self-educational activities.

The relevance of the study of the problem of forming the professional competence of a chemistry teacher is due both to the need to modernize the content of professional competence in accordance with the changing conditions of the teacher's activity in a modern school, and to the ever-increasing role of chemistry in modern society. Chemistry, playing an outstanding role in modern human civilization, satisfying the needs of society and each person in new materials and technologies, makes certain requirements for the modern educational process, which should develop chemical and environmental thinking in students, and stimulate chemistry teachers to continuously improve pedagogical and subject competencies, mastering the appropriate methodological tools, self-improvement and self-development [2].

In the conditions of the modern constantly changing, information-rich educational environment, the subject competences of a chemistry teacher become decisive in the structure of his professional competence. A modern chemistry teacher who carries out the educational process in a fairly wide range of conditions (classes of various profiles, educational institutions of various levels) must understand the specifics of the content of chemical education and its structure in accordance with the modern level of scientific knowledge, have subject competence at the level of conscious and creative selection of educational information. The professional development of a chemistry teacher is an open, complex, nonlinearly developing system, consisting of subsystems of general, chemical and pedagogical higher professional education, additional professional pedagogical education and self-development [1; 3].

The system of additional professional pedagogical education plays a leading role in the process of professional formation of a teacher, creating conditions for the disclosure, enrichment and development of professionalism. A

dynamic, adapting to changing conditions, functional and effective system of additional professional pedagogical education, built on the principles of continuity, consistency, diversification, participation, reflexive control, facilitation and subjectivity [4], determines the stability and effectiveness of the process of professional development of teachers. The process of developing the teacher's professional competence in the system of additional professional pedagogical education includes the following components: the formation of the teacher's readiness for professional pedagogical activity, the teacher's motivation for professional pedagogical activity, the acquisition of new knowledge, abilities, skills, professional experience, the improvement of personal qualities, practical professional pedagogical activity of the teacher

Based on the structure of the process of development of the teacher's professional competence in the system of additional professional pedagogical education, we can single out the main functions of this system: educational and cognitive, innovation and activity, organizational, methodological and diagnostic and motivational. These functions are interrelated, the spheres of their manifestation and implementation constantly intersect and are inherent in all links of the system - central, regional, school and self-education, therefore it is important to use an integrated approach to the problem of developing the teacher's professional competence.

Self-educational activity of chemistry teachers, as the most important component of professional competence, is aimed at high-quality chemical education of students and includes the following areas: 1) study and implementation of the achievements of chemistry into educational practice; 2) disclosure of the creative, creative and developing function of chemistry, its role in solving global problems of mankind; 3) own research and search activity of a chemistry teacher and attracting students to it; 4) development of students' skills in observing and explaining chemical phenomena (in the laboratory, at work, at home); 5) generalization of their own pedagogical experience, its translation, the

use of advanced pedagogical experience and the latest achievements of pedagogy. The teacher's self-prediction of his own professional development, in addition to self-educational activities, includes a purposeful process of personality development in the professional sphere - professional self-education, in the process of which the emotional-volitional sphere of the teacher's personality is formed, his psychological-pedagogical, communicative and organizational-activity competence. The self-educational process contributes to the cognitive and creative development of the teacher's personality and its professional and personal self-realization, carried out with the help of self-knowledge, introspection, self-esteem, self-programming, self-control and self-correction. The internal motives of the teacher's professional self-improvement should be supported by external factors: scientific and methodological organizations, the requirements of the certification process, the methodological service and the administration of the general educational organization. The process of managing the formation of the teacher's professional competence is the process of determining the strategy and tactics of achieving a given professional level, predicting professional growth and self-realization, determines the individual trajectory of development of each teacher, his individual professional difficulties and needs.

The process of forming the professional competence of a chemistry teacher is based on conscious self-development, which will be successfully carried out in the conditions of: 1) the dynamism of the system of additional professional pedagogical education, based in its development on the principles of andragogy, axiology, synergetics, consistency and integrativity, integrated methodology and personality-activity approach; 2) stimulating professional self-improvement as a unity of three components - self-education, self-education and achievement motivation; 3) identification and implementation of a set of methods and technologies for the formation of the subject chemical competence

of chemistry teachers; 4) determining the ways of managerial influences contributing to the formation of professional competence of chemistry teachers.

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