



# Problems Of Improving The Creative Competence Of Future Chemistry Teachers

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## ABSTRACT

The article provides a description of the pedagogical competencies of a chemistry teacher, which are components of professional readiness for organizing educational and research activities of students in general education organizations.

## Keywords:

Neuroses, children, treatment, psychotherapy, pharmacotherapy, complementary medicine.

Today, thanks to the development of information and communication technologies, global processes of integration and globalization are accelerating. This, in turn, has a serious impact on the education system as a whole. After gaining independence, attention to the education system increased, as noted by the first president of our republic I.A. Karimov in his works "High spirituality is an invincible force", "Serving the prosperity and for the great future of the Motherland is the greatest joy" and in many other works, paying special attention to the issues of improving the work of teachers in secondary schools, lyceums and vocational colleges, which are the main part of society [1].

Teachers' competence in teaching and learning chemistry is an important factor in determining the success of the educational process. Their ability and knowledge in the process of teaching chemistry will have a direct impact on students' active participation in learning activities. Therefore, developing the

competence of future chemistry teachers, involving efforts to strengthen positive relationships, is an important task to improve the professional preparation of future teachers and ensure high quality education in many countries around the world [2].

In our context, the government has set specific standards in defining the implementation of quality education in accordance with education laws, which relate to the educational curriculum, teacher competence, educational infrastructure, organization of educational activities and educational assessment. Everything is interconnected in ensuring the quality of education, in this regard, special attention is paid to the quality of scientific subjects.

The subject of science covers general science and pure science of biology, physics and chemistry. Science subjects require practical learning as well as theoretical research. Therefore, to be competent, future teachers must be effective in designing,

planning and implementing the teaching process. One of the tasks from this is that future teachers must have the skills of practical training and conducting laboratory experiments. Therefore, future teachers need to be raised with a love of science. According to Kamis, Zanaton and Lilia, positive attitudes towards science and scientific activities will exist through constant monitoring of experiments and constant evaluation of practical activities. [3]

Therefore, this case study aims to determine how future teachers use their competencies to conduct the teaching process as well as evaluate chemistry experiments in laboratory classes. Students cannot carry out experiments and predict the outcome because they are not used to laboratory activities. During laboratory classes, students should be given the opportunity to ask questions, make hypotheses, experiments, and derive experimental results through observation, data processing, and inference [4].

The instruments and apparatus needed for the experiment must be ready before the actual lesson. Data, information, or test results on student performance will be used as a basis for chemistry work for future students. Preparation involves prior perception of the activity to create interesting teaching examples that arouse students' interest in a successful learning process.

In addition to preparing and conducting the educational process, assessment is the process of collecting data to determine the achievement of educational goals. The ability and effectiveness of teachers in implementing activities during the learning process will have a positive impact on students' learning orientation. Teachers also have a responsibility to provide authentic learning experiences and create active learning through active engagement with the subject matter. Therefore, teachers must be truly competent in their subjects. For the subject of chemistry, the teacher's competence in creating and planning will have a significant impact on the learning process and will significantly influence the students to change their behavior.

Therefore, the question arises about what creative skills a future chemistry teacher should have. Chemistry teacher competence is the skill and personality of a teacher in handling the teaching process through teaching methods, teaching aids and resources.

However, it is generally accepted that the term "competence" was introduced into scientific circulation by the American psychologist Robert White in his 1959 article "Motivation reconsidered: the concept of competence" to describe an individual's ability to effectively interact with the environment. [5] In subsequent decades, the concept of competencies has become widely used in the field of personnel management and has acquired many definitions. In essence, they all boil down to one thing: competencies are a set of knowledge, skills and personal experience necessary to effectively perform a certain activity. According to K. Selvi, competence is "a set of knowledge, skills and knowledge in creating meaningful experience in organizing activities." It is defined as "the set of knowledge and skills" necessary to carry out an activity." The teacher must have professional competence in education for teaching and research for conducting experiments in chemistry. [6,7]

Science is the knowledge of natural phenomena which involves research and discovery through practical and laboratory experiments which must be carried out under the guidance of teachers. Therefore, a competent and professional chemistry teacher will definitely understand how to guide students to carry out experiments and their practical implementation.

There is a creative approach to understanding the essence of critical change and innovation in the modern education system. In the modern pedagogical process, the emergence of competency-based and innovative approaches to teaching and educating new promising and competitive students in conditions of competitiveness in the field of education; changing rules and methods, while others need to improve the content of education and implement reforms in it. Consequently, the majority of graduates of

current general education, secondary, vocational and even higher educational institutions experience a lack of creative competition. This leads to certain shortcomings in nurturing the mature spirituality of a competent person. The need to eliminate this problem requires the development of computing technologies and mechanisms for the development of teacher creativity, as well as the preparation of scientific and methodological recommendations based on our national ideology that meet international standards.

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