# CONCEPT OF IMPROVEMENT OF PROFESSIONAL METHODICAL PREPARATION OF FUTURE CHEMISTRY TEACHER IN THE PROCESS OF STUDYING THE BIOCHEMISTRY COURSE

**Kamolova Nargiza Ibragimovna**
PhD doctorate of Tashkent State Pedagogical University named after Nizami

## ABSTRACT

In this article, the methodology of the modern specialist, the essence of integrated pedagogical supports, implementation of scientifically knowledge and educational conditions for the application of the scientific and technical tools and technologies needed in the formation of pedagogical knowledge of future chemistry teachers and the impact of the system of teacher training and methodological support on the quality of teaching. Nowadays, modern aims and objectives of teaching, ways of profound restructuring of content and contents of activities of future teachers and strategies for modernization of teaching methods and technologies, future chemistry in the course of studying the course of biochemistry. Regular knowledge of the constituent, its chemical knowledge as part of the scientific understanding of the world, reflects the main components of interconnected and interconnected chemical knowledge.

**Keywords:** System, vocational training, teaching methodology, continuous education, pedagogical experience, pedagogical research, vocational education, chemical process, integration, mechanism, communication, pedagogical technology, innovative technology, interactive methods.

## INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

Law of the Republic of Uzbekistan ‘About Education”, “National Staff Training Program”, “Strategy of Action for Further Development of the Republic of Uzbekistan for 2017- 2021”, presidential Decree of the President of the Republic of Uzbekistan No.PR-3289 “On measures to further improve the system of education”, dated September 5.2018, in accordance with Resolution PQ-3931 On measures to introduce new principles of management in the public education system”, it is necessary to ensure continuity and consistence of the stages of education, to create modern methodology of education and further improve the content of retraining and advanced training of teachers.

At that time, the process of improving the system of continuous professional training for teachers, including chemistry teachers, is underway in higher education institutions. This is due to the ongoing education reform in secondary schools, as well as the increasing demand for teachers who have personal and professional skills in the community.

In our modern conditions, Pedagogical Universities try to make highly qualified specialists in both the natural sciences and psychology, pedagogy and teaching methodologies. Such a comprehensive training of teachers requires the integration of various scientific disciplines into a holistic system. The core of such a system is the courses of chemistry in school that combine the psychological, pedagogical, special scientific and practical aspects of teacher training.

For this reason, in the course of professional and pedagogical training of chemistry teachers , there are three main directions:

1. Integrating chemistry courses in schools with the psychological and pedagogical cycle based on interdisciplinary links.
2. Improvement of chemistry courses in schools by introducing more effective teaching technologies and identifying key aspects of modern teacher training (environmental, humanitarian, etc.).
3. Introduction of methodological training in the study of special scientific disciplines.

Methodical training of chemistry teachers V.Borovskih, M.B Dyakova, O.S.Zaitsev, S.V.Inozemtseva, N.E. Kuznetsova, L.G. Taskaeva, G.M.have been the subject of research by Chernobelska and other scholars. In addition, a number of studies have been conducted on how to combine methodological training of chemistry and biology teachers with other aspects of vocational training. In particular, N.V.Vajeva and V.M Nazarenko's research focuses on the integration of environmental and methodological training.

In the scientific literature there is a problem of combining special scientific and methodological training of teachers in the whole educational process.

Research in this area by T.V.Borovskiy's which relates to propaedeutic of young students in the study of general and inorganic chemistry. Furthermore, N.V.Vajeva considered the possibility of combining the biochemical, environmental and methodological aspects of future teacher training into a set of biochemical and environmentally-specific practice sessions. However, in order to integrate the methodological training of chemistry teachers in pedagogical universities, each course that students study must have a methodological orientation.

The Biochemistry course is one of the main courses taught by students of chemistry and biology majors at the Pedagogical University. Its importance for teacher's methodological training increases with the increase in biochemical content in the school chemistry courses. Incorporating methodological training into the teaching of biochemistry will improve the quality of the course and enhance the professional training of future chemistry teachers.
To achieve this goal it is necessary to perform the following tasks:

1) Conduct theoretical analysis and determine the current state of the methodological problems of the existing contradictions in this area, as well as ways and means to solve the problem.
2) Development of the concept and definition of the basic requirements for modeling the system of professional biochemistry
3) Developing a system for biochemistry courses in accordance with the developed concept.
4) Developed of unified methodological model of teaching biochemistry students in relation to their methodological training.
5) Assessment of the impact of teaching biochemistry students on the quality of their biochemical and methodological with the developed methodology.

Inclusion of the methodological component in the special science courses raises the problem of ensuring the integrity of the learning process. To solve this problem it is necessary to find something in common between the specific scientific and methodological aspects of the pedagogical process, and to define a common basis for construction. The methodological approach is used as the sole basis for the creation of a methodological system that combines special scientific and vocational training. The methodological approach includes some general ways of looking at the object of research, reflecting the position of the researcher, the general philosophical level of the problem consideration.

According to the leading methodological concept of modern pedagogy, a holistic pedagogical process. So it is clear that the philosophical basis of any pedagogical research should be a holistic approach. A holistic pedagogical process in science is a dedicated, purposeful interaction between teachers and students that addresses the issues of education, development and education. The global pedagogical process has a number of laws that must be taken in to account when developing a specific science course, including of students.

1. The inseparable unity of its constituent and their harmonies interactions are characteristic of a holistic pedagogical process. This means that the introduction of methodological training in the teaching of science should affect all components of the pedagogical process- its content, learning and teaching activities and textbooks. Changing only one component of the learning process does not give the expected result.
2. The methodological component can not be simply incorporated into the process of the learning the basics of science, as it would undermine the integrity of the pedagogical process. The content of existing curricula cannot be supplemented by methodological knowledge, skills, tasks, etc. we need to find ways to incorporate them into the whole process of teaching a specific academic discipline.
3. The key to the integrity of the pedagogical process lies in the cooperative effect, the interaction and interdependence of its components. This means that methodological and specialized scientific training will inevitably affect each other, resulting in an increase or decrease in the quality of acquiring specific scientific or methodological knowledge and skills.
4. Integration of the methodological training into holistic processes of teaching students specific scientific disciplines leads to the emergence of new features of the pedagogical process that are not unique to traditional courses.

The principle of linking the course content with the practical activities of the chemistry teacher is aimed at providing continuous professional training for students at Pedagogical University. In particular, the link between the content of the biochemistry course and the practical work of the chemistry teacher is manifested in various ways:

1) The generalizability of conceptual systems, theoretical concepts and regularities of biochemistry as well as the unification of biochemical research methods.

2) Through the integrity of the content formation methods, that is, the university teacher can duplicate the course of biochemistry in design of biochemical topics and lessons but the size of the school curriculum varies.

3) Through the activities of school students of the same composition to develop the university course.

4) Through the opportunity to educate a number of personality traits( motivation for pedagogical activity, professional and environmental culture) in teaching biochemistry. This is facilitated by the emphasis on the course content on environmental issues require multilateral consideration, discussion and of course, the moral evaluation of various conclusions and decisions.

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