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Research Article

CHARACTERISTICS OF FORMATION OF RESEARCH ABILITY IN FUTURE CHEMISTRY STUDENTS

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ABSTRACT

This article describes how to form and develop the research skills of students majored in chemistry, and how to gradually guide students to promising research. The main feature of the formation and development of research skills is the growth of the student's educational problems and personal interest in the profession, the accumulation of educational experience as an element of professional experience, the ability to work independently.

KEYWORDS

Research skills, innovation, research, competence, research competence, intellectual potential, professional competence, professional education.

INTRODUCTION

Modernization of pedagogical education of the Republic of Uzbekistan, transition from transmission of traditional paradigm knowledge to competence, implementation of innovative educational technologies in modern educational schools, individual education directions require changing the system of professional training of future teachers. Today, the role of innovations in the task of young chemical specialists with intellectual abilities is of decisive importance, ensuring high quality and competitiveness of education. Therefore, the future of schools in developed countries is mainly determined by the teacher. The current level of economic development requires the education system to train ready specialists with in-depth knowledge. It is important to work with innovative approaches to education to solve professional problems in the field of education, social and pedagogical, cultural-educational, organizational

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and management. becomes important. Taking into account the main trends in the development of the education of our republic, the relevant developments and their evaluation based on pedagogical innovations, focusing on the development of innovative thinking of chemists who must have intellectual ability in the undergraduate course, it is not only a specialist who must have the ability includes training, but also performing tasks such as solving typical problems, as well as distinguishing pedagogical problems and thinking comprehensively, solving problems covering various conceptual approaches to the possible field. lib helps. Organization of various activities on the implementation of innovations in the education and training of future chemist students with intellectual abilities, knowledge, abilities and skills, qualifications in the field of innovative activity of the future chemistry teacher, allows them to effectively build pedagogical professional activity

The future chemist is mastering the system by experts

- Objectives of learning science:
- study the theoretical foundations and general trends of innovation development
- in education, the content and structure of the innovative activities of pedagogues, teacher technology in the innovative educational system;
- to prepare for the organization of training and educational process on innovative technologies in order to ensure the quality of education.
- -modern trends in the development of innovative processes of education;
- the characteristics of the teacher's practical activity within the framework of innovative activity.
- As a result of studying the discipline, students:
- introducing innovative technologies into the pedagogical process
- creating conditions for effective motivation of students;
- designing the activity in accordance with the innovations in education;
- incorporating modern information and computer technologies into educational activities;
- building and implementing promising professional directions
- self-development taking into account the innovative trends of modern education;
- -formation of own research position.
- -methods of analysis and critical evaluation of various theories, concepts, approaches to building the educational system;
- -technologies of conducting experimental work, participation
- the ability to independently acquire new knowledge and skills and use them in practice;
- the ability to carry out professional and personal self-education;
- the ability to use their capabilities in the implementation of innovative educational policy tasks;
- creating a desire to use individual creativity for oneself
- finding original solutions to research problems;
- the ability to design and build professional activities in accordance with modern innovative approaches to education.

Educational reforms are aimed at educating and training a well-rounded person and a qualified specialist, and in the implementation of this goal, continuous education system reformation and updating of its content in accordance with social requirements were ensured.

Along with representatives of the older generation in scientific institutions, young scientists and researchers with thorough knowledge and knowledge of several

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foreign languages are also conducting large-scale research. They are equipped with modern scientific and laboratory equipment and material resources. The important fundamental results obtained by young scientists serve as a basis for the wide development of practical scientific and technical and innovative developments and are directed mainly to the needs of the manufacturers of our country and the main sectors of the education sector.

The use of new pedagogic technology methods and information communication technologies for training chemical teachers not only leads to the student's conscious assimilation of knowledge at the program level, but also the expansion of the ability to work independently and creatively and think logically. For this purpose, the use of various modern pedagogical technologies, animation and multimedia is highly effective. By using various interactive teaching methods in teaching chemistry, students will have the opportunity to objectively and objectively determine the extent to which they have mastered certain topics, as a result of which students' interest in science will increase.

In the future, the main result of the implementation of the competency-based approach should be the renewed training of personnel who are motivated to the teaching profession and ready for innovative activities in the context of reforming the local education system.

Educational activities for the formation of the student's research ability should be organized in such a way that he can independently plan, implement and manage it. This is possible due to the introduction of various modern educational approaches (systematic, activity-competency, rational, reflective-activity) into the educational process, which should be based on a number of general pedagogical principles.

Taking into account the complexity and versatility of the process of studying the subject, it is possible to distinguish the principles of humanity, consistency, controllability and acceptability, as well as the principle of regulatory, system-forming, totality-based rationality. The principle of humanization connects the main pedagogical concepts (education, upbringing, development); reflects the active role of the person; aimed at developing intellectual, spiritual and physical qualities; considers the student as a subject of rational management of the quality of the educational process. The implementation of this principle is related to the consideration of the rationalization of the process of studying the subject in the context of social and moral-ethical problems. The principle of consistency is used in the summarizing stage of scientific research; it reflects the basic laws of the pedagogical process as a social system. In order for the system to work properly, both a scientific organization and its rational management are necessary. Therefore, it is very important to observe integrity and integration in the education system.

Any system, including pedagogy, has its own "system requirements", that is, what allows it to be maintained:

- movement algorithm and program;

- the scientific nature of system management and methods of forming its elements.

When talking about system requirements, it is necessary to remember about the functional relationships within the system, their rational management leads to the efficient operation of all subsystems.

The principle of controllability implies the application of basic rules and requirements to be observed by the subject of control in the formation and implementation of management actions. This principle works as the main form of conscious and acceptable use of control

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laws in the practice of managing the educational process in chemistry. This principle defines the following requirements for the quality management system of the chemistry teaching process: stability, flexibility, openness, rationality; to rational organization of the process of studying the subject: efficiency, economy, predictability; to the quality of education: compliance with the standard, dimensionality. The implementation of this principle implies the following:

- to create a methodological system of scientific quality management of the educational process in chemistry, to implement a systematic and purposeful approach to the formation of its structure and functions;
- formation of criteria-evaluation base for management of the quality of the educational process in chemistry;
- the development and application of modern educational technologies as a factor of rationalization of the educational process in chemistry and the use of a set of requirements and techniques for organizing student activity during the educational process, as well as methods of its management.

Thus, mastering the knowledge system by future specialists, abilities and skills in the field of innovative activity of the pedagogue, qualifications will help them to more effectively enlighten their pedagogical professional activity, implement innovative approaches in teaching and teach students in their entire capacity. it is required to use all the possibilities.

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