



Development of Compensatory Activities of the Future Biology Teacher

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Abstract: In the article examined to the way of the effective forming and development of professional competence of future teacher, in particular, teachers of biology, reasonable necessity of realization for institution of higher learning of the special work on mastering of pedagogical innovations.

Keywords: Teacher, competence, skills, professionalism, technology of educating, pedagogical innovation.

The concept of development of the higher education system of the Republic of Uzbekistan until 2030 outlines measures that provide for "increasing the proportion of hours devoted to self-education, introducing methods and technologies aimed at developing students' self-education skills, critical and creative thinking, system analysis, entrepreneurial skills, the introduction of methods and technologies aimed at enhancing competencies in the educational process, the orientation of the educational process towards the formation of practical skills, is widely some introduction of advanced pedagogical technologies, curricula and teaching materials into the educational process based on international educational standards in this direction. " To accomplish this task, priority must be given to the formation and improvement of the professional and pedagogical competence of the teacher.

An integral component of the professionalism and pedagogical skill of a teacher is his professional competence. Studying the world best practices, several types of professional competence can be distinguished: special competence; social competence; personal competence; individual competence. Professionalism of a teacher is determined by a combination of all types of professional competence. Along with the concept of "professional competence" in pedagogy, the concept of "pedagogical competence" is used.

The pedagogical competence of a future biology teacher is understood as the unity of his theoretical and practical readiness for the implementation of pedagogical activity. This concept reflects the level of possession of the necessary knowledge and skills. Professional competence is one of the most important conditions for the successful work of a future teacher. One of the conditions for the effectiveness of professional training of a modern biology teacher is the need for special work at the university to master pedagogical innovations. In this regard, new approaches to the organization of higher pedagogical education and training of future biology teachers are comprehended:

- cultural approach, which determines the formation of the content of higher pedagogical education through the priority development of "human knowledge";
- a personal-activity approach associated with new technologies of the learning process, which are designed to ensure the transition from the abstract formation of the personality to the pedagogy of personality development;

- a multi-subjective (dialogic) approach that provides the subjective position of the future biology teacher, the attitude to him at the university as a unique person, the personalization of professional training;
- An individually-creative approach that determines the structure of interaction between teacher and student. Scientists to the forefront of teacher education priorities put forward the personal potential of a teacher, his ability to be a subject of innovative activity. Now one thing is clear that pedagogical education is considered not only as the production and appropriation of new knowledge, goals, values, personal meanings, but also as the disclosure of the essential forces, activity abilities of a person, his opportunities for the integrated and responsible fulfillment of professional and social roles, the production of new ideas, decisions, creating real prerequisites for self-development of the personality of the future specialist.

The process of formation of the ability of future biology teachers to master and critically analyze pedagogical innovations includes a whole series of mental actions based on a combination of professional, social and personal motives of a teacher, his theoretical knowledge in psychological and pedagogical, particular methodological and specially scientific disciplines, and practical skills that affect various sides of the educational process. Thus, we consider the formation of future biology teachers of the studied ability as a system of purposeful specially organized work, which includes mastering by future biology teachers a complex of knowledge about innovations and methods of accumulating factual material (observation, description, conversation, etc.), on the basis of which it is organized analysis and reflection. A number of studies have identified different approaches to the study and analysis of innovations. Ya.S. Turbovskoy proposed the concept of studying and generalizing experience on the so-called diagnostic basis - a special methodology for collecting scientific information about the state of teaching practice and those problems in the teacher's activity, which should become the subject of a special scientific analysis and solution at each specific stage of school development. V.P. Kvasha offers a peculiar approach to the analysis of creative finds of a teacher. The first stage: the compliance of innovations with the requirements for innovation, and what idea is laid in the new approach of the teacher to work, are established. Second stage: the type of innovation is determined. Instead, the parameters of studying pedagogical innovation are highlighted. The third stage: the objects and criteria of analysis are determined from the standpoint of using innovations. The fourth stage: the possibilities of self-expression of the teacher are determined. Fifth stage: the possibilities of developing creative thinking are determined. Sixth stage: the scope of the use of pedagogical innovation is determined. As part of the study, we have compiled and apply a critical analysis algorithm for innovations, which includes four stages and determines the totality of pedagogical actions on each of them. The first stage: the study of scientific, theoretical and methodological works of modern innovative teachers and experimental teachers. Student actions: determination of the spectrum of contradictions in the educational process that caused the appearance of this pedagogical innovation and the complex of problems that it is designed to solve; identification of the scientific principles that underlie innovation; the formation of the main idea of innovation. The second stage: the definition of the species and a brief description of the innovation. Student actions: the formation of the essence of innovation (new idea, new approaches to learning, new techniques and methods, etc.); scientific argumentation of innovation; description of training technology; scope of innovation; determination of the type of innovation. In the psychological and pedagogical literature, there are various approaches to the classification of innovations. In the context of our article, we consider pedagogical innovations according to the following indicators: scope of distribution; degree of novelty; branch of pedagogical knowledge; scale of transformations; innovative potential; the possibility of implementation. The third stage: a critical analysis of innovations. The formation of the ability of future teachers for critical analysis and expert evaluation of pedagogical and methodological innovations involves the use of certain criteria in the course of their professional training, which make it possible to judge the degree of effectiveness of the innovation.

The improvement of educational, scientific and research activities is also facilitated by the fact that specialists in the field of pedagogy and private methods highlighted gradations of the concept of

“new”: construction of the well-known in another form; repetition of an existing one with minor changes; clarification, specification of the already known; addition already known to essential elements; creating a brand new facility. Based on the methodology proposed by M.S.Burgin, one can apply the methodology for assessing the novelty of pedagogical and methodological innovations. The starting point of such an assessment is the allocation of significant characteristics (criteria for manifestation) of the educational and educational novelty project. Then - the selection of analogues for comparison from the same field of activity. And - the evaluation itself by the algorithm. To determine the normative novelty of pedagogical innovation, we take the traditional methods of training or education as an analogue, and to establish its conditional novelty, we compare the proposed methodology with previously existing ones. Mentally reckless and consistently theoretically acquiring the criterion attributes of novelty, future biology teachers increasingly act as connoisseurs of innovations in the field of classes with younger students in the Russian language. When analyzing the effectiveness of pedagogical innovations, a performance criterion is used, which means a certain stability of the positive results of the educational activity of the teacher. The uniqueness and uniqueness of this indicator, technical simplicity, observability and determination of the results make this criterion necessary in assessing the significance of new techniques, training methods, etc. We created and used the following methodology to evaluate the effectiveness of pedagogical and methodological innovations. The starting point is the determination of the compliance of the content and level of training with the requirements of the state standard. To do this, we turned to the basic programs. Their requirements became a kind of reference point for such an assessment, since they determined the mandatory amount of knowledge and skills that the teacher has no right to prevent the wards. Further, students are invited to determine the level of advancement of each child relative to the previous stage of its development. Then it becomes clear how the current level of schoolchildren’s training corresponds to the approximate optimal level of knowledge and skills for the corresponding category of students, which is characterized by the following indicators: conscious and solid assimilation of leading ideas, concepts, laws, theories, facts that are part of the content of the subjects studied; the ability to apply the acquired knowledge to solve new cognitive problems in practice; developed ability to argue their answers to the studied educational material, to convincingly prove the truth of the judgments and estimates being made; formation of self-education skills. The next criterion on which we orient future biology teachers in a critical analysis of innovations is optimality. Optimality is a successful combination of methods, techniques, forms and means in the work of a teacher. When determining the optimality of a particular innovation, students are invited to analyze the degree of expenditure of physical and mental forces and means of teachers in order to achieve high results. To ensure real progress in the training of future biology teachers, the criterion of the scientific nature of the author’s project proposal is essential. Scientific - the evidence and validity of all conclusions. The criterion of scientific is associated with an active approach to the educational process, as well as with the latest achievements of psychological, pedagogical and methodological science. When evaluating pedagogical innovations, we orient students towards determining the degree of compliance of innovations with the modern achievements of pedagogical science and practice, and identifying the degree of conformity (or inconsistency) to them. One of the criteria that we focus on students when analyzing innovations is the possibility of creative application of innovation in the mass experience of teachers.

The key figure in the implementation of any transformations in education is the teacher. A modern teacher is a professional teacher, he is one who is open to everything new, he is a successful teacher. The success of such a teacher’s professional activity is determined by the formation of professional methodological skills in his teacher. In the recent past, the purpose of training was knowledge. Because the graduates passed the exam, the work of the teacher was also evaluated. Now the requirements for the teacher and for the graduate have changed. In conditions of innovative development, the school needs a biology teacher who can teach the student how to learn. Since there was a demand not for a “graduate who knows,” but for a “graduate who knows how to be creative.” Therefore, the main direction of work is the development of professional competence of a biology teacher, i.e. development of creative personality, the formation of receptivity to pedagogical innovations, the ability to adapt in a changing pedagogical environment.

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