

PREPARATION OF FUTURE PHYSICS TEACHERS TO INNOVATIVE TEACHING TECHNOLOGIES

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ABSTRACT

This article includes the modern technology of learning the subject of drawing. As well as the didactic approach to drawings, testing of knowledge and skills, students on the subject of drawing, gives guidelines on how to use modern pedagogical technologies and teaching methods in order to increase the activity of students during classes on the subject of drawing.

Keywords. Physics, technology, innovation, learning, training, teacher.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

The modern era of the modernization of the entire education system places increased demands on the professional training of a subject teacher, has significantly changed and complicated the role of the teacher in the university. He is now not only a source of information, but also a person who organizes and manages the educational process, organizes developmental training for students, has the necessary knowledge and culture that would allow him to independently solve pedagogical and methodological problems that constantly arise in his professional activities.

It is known that pedagogical innovations do not immediately give a result in economic terms. The effectiveness of the educational process will manifest itself later in the activities of trained professionals. Therefore, it is necessary to implement a systematic approach in organizing the wide use of innovative technologies. In this aspect, we emphasize once again the main factor is the training of teachers using innovative learning technologies.

Innovative learning technologies make it possible to actively use the activity approach in the classroom, help the teacher design the learning process from setting a goal to exercising control, introduce new forms, techniques, tools, and information and communication methods inherent in information technology, which ensures the implementation of the objectives of the National Training Program. personnel of the Republic of Uzbekistan.

If earlier the main tasks of vocational education were the transfer of knowledge and control over their mastering, i.e. the cognitive (cognitive) education paradigm dominated, then in the modern conditions of innovative development, the main task of education is to train future physics teachers to create innovations in various fields of activity, which means switching to a creative (creative, creative) education paradigm. In this case, cognitive education becomes only the initial stage of creative education.

Today, the activity of the teacher should be aimed at the continuous search for innovations, reflections, mastering the psychological foundations of the learning process, improving information ideas put forward in modern society. This, in turn, will expand the range of

professional interests of the teacher, stimulate the need for studying methodological literature, and create the prerequisites for conducting psychological, pedagogical and basic research. Effective scientific and pedagogical training will ensure the quality of innovation. The teacher is fully mastered innovative technologies, professionally ready for the continuous improvement of the educational process.

Working with such teachers, promoting and disseminating their experience, evaluating their innovative activities, mastering the necessary knowledge, skills and skills determines integrative skills.

The introduction of new approaches in education primarily requires updating the content of education, the use of innovative technologies and modern teaching methods, organizing the management of the educational process on a scientific basis in accordance with modern socio-economic conditions, as well as creating scientific and pedagogical foundations for retraining and advanced training of teachers.

At present, almost everyone understands that the most promising solution to the problems that arise is the technologization of the educational process, that is, the provision of teaching work with pedagogical technologies. Scientists, relying on general theoretical principles, are engaged in the scientific development of specific pedagogical technologies, which, in their opinion, should assist the teacher in solving certain specific methodological problems. We regard technological training as the process of forming a teacher of special integrative professional qualities, mastering theoretical and practical mechanisms and acquiring the necessary experience of new activities that determine the teacher's readiness to create and apply personal pedagogical technologies based on subjective experience. At the same time, methodological training and technological training should constitute a single system in the substantive and essential professional meaning of the system of the final stage of training of a teacher (specialist or master).

The organization of work on the use of innovative learning technologies the main goal has a significant change in the activities of educational institutions. To achieve this goal it is necessary:

- update the content of education;
- updating curricula, expanding the content of textbooks with variable materials; bringing their conformity with state educational standards, introduction to existing programs, new developing ideas; the allocation in the curriculum of hours for electives on new subjects;
- the creation of new technological and software-methodical products, replication of positively proven teaching aids;
- to increase the effectiveness of research works carried out in educational institutions on the problems of using innovative learning technologies and developing cooperation between teachers and students.

Teachers' conviction in the effectiveness of innovative learning technologies, which appears in the process of business games with the use of appropriate techniques and methods, demonstrating the activities of qualified teachers, mentoring work: through brief information about the actual teaching practice, seminars, and consultations on innovative technologies . All these techniques will interest listeners, carry away a living example.

The current changes in the socio-economic sphere affect the education system.

The renewal of education implies the democratization, socialization, humanization of education and training, the strengthening of integration processes, the strengthening of relations of education and production. These processes objectively reflect the changed sociocultural situation and determine the need for the use of innovative learning technologies.

The introduction of innovative technologies in the educational process assumes that the teacher acts as the main advisor, interlocutor. Students in the process of learning need to develop critical thinking, creative abilities, to form professional skills.

The introduction of each new technology in the educational process depends largely on who teaches.

Using innovative learning technologies, experienced teachers strive to ensure that students express their attitude to the most important achievements in life and problems, determine their place in life, and create the necessary conditions for students to freely express their point of view.

Therefore, to solve the problems and tasks facing the education system in the context of innovative processes, we need teachers who can bring the necessary information to students and form professionally competent specialists, dedicated, enterprising and enterprising.

This, in turn, means that in the educational process in higher education institutions, innovative technologies, interactive and non-traditional teaching methods have a special place and importance. Possession of them, use in the classroom, the study of excellence create prerequisites for students to achieve a high professional level.

The Ministry of Higher Education of the Republic of Uzbekistan has developed a special action plan for the implementation of the resolution “Development and modernization of the material and technical base of universities and the development of innovative pedagogy, information and communication technologies”.

On the basis of this plan and based on best practices, the following can be recommended:

- ✓ on academic councils of higher educational institutions to discuss the experience of teachers in the use of innovative learning technologies, approve it, recommend for implementation;
- ✓ provide teachers with educational literature, manuals, methodological developments;
- ✓ to conduct for teachers reports on the development of innovative technologies in accordance with the requirements of the National Program for the Training of Personnel of the Republic of Uzbekistan;
- ✓ organize in higher education institutions courses for teachers on the study of innovative learning technologies;
- ✓ prepare consultants based on programs developed by leading methodologists;
- ✓ independent study (with the help of teachers of consultants) of literature on innovative technology compiled by teachers;
- ✓ conducting scientific and practical seminars and master classes on innovative educational technologies in universities;
- ✓ to provide measures for moral and material incentives for teachers who widely apply innovative learning technologies;
- ✓ develop methodological instructions for classes based on innovative technologies used by proactive teachers;

✓ monitor the training of teachers on the use of innovative technologies; accumulate, summarize and analyze the results of the application of innovative learning technologies by teachers;

✓ discuss the result of the experience in this area and determine the tasks for the future.

Thus, innovative educational technologies are aimed at solving the main task - improving the quality of education in the system of continuous education. Innovative technologies, the future means of transferring knowledge and application of modern information technologies, contribute to the development and improvement of students' personal qualities. They have didactic and methodical features.

If a student, along with strong knowledge, manifests independent thinking, creative abilities, and professional skills, then this guarantees innovative educational technologies that contribute to solving problems of educating a harmoniously developed generation.

In this aspect, the main task of quality training future teachers is to teach students knowledge based on innovative technologies and their effective use.

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