Development of the Future Creativity of Future Technology Teachers on the Basis of an Innovative Approach

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Annotation: The content of technology teaching based on innovative pedagogical technologies is covered in the article. Instructional tools and didactic possibilities that activate technical creativity skills of future teachers have been revealed.

Keywords: innovative pedagogical technologies, didactic tools, knowledge, skills, development, technical knowledge, creativity, collective creativity.

Introduction. Today, as time is rapidly developing, future pedagogues are required to aim for even higher goals, to be aware of the news in science, technology and technology. It is recognized by the world community that since ancient times, our great ancestors have been passionate about innovation and started the renaissance period in the East. In particular, the desire to acquire knowledge, learn a craft, and become a professional was very strong in our ancestors, and this, in turn, led to the emergence of scholars who made a great contribution to the development of many world sciences in our country.

Today, the fundamental reforms implemented in the field of education in our country, as stated by our head of state, serve for the development of young people, who are considered the future of our country, as mature individuals in all aspects, and for their development into competitive personnel. During the rapidly developing science and technology of the 21st century, foreign experiences and new projects are entering every field, leading to changes in the development and education of our country. The reforms carried out in the field of education in order to fully preserve the rich cultural heritage and historical traditions of our people, and to widely promote handicrafts. It serves to improve the quality of education in full compliance with educational standards.

The Main Part. Technology science teachers in general secondary schools should not feel like second-rate science teachers and should be able to arouse students' interest in science while having a deep understanding of this subject. In the process of teaching, technology teachers should deeply feel the role and essence of this subject in society, the goals of the subject in education, and at the same time teach students hard work, creativity and, in some sense, entrepreneurship. "It is known that the teaching profession is a very responsible profession that requires various integrated knowledge and skills. A teacher of technology teaches students in the future, as well as forming skills related to certain professions. The teacher must have high qualifications and professional skills in preparing the given items.
In order to achieve this result, in addition to knowledge and skills, the teacher must have the ability to influence students through his proven method, education and upbringing. In addition to providing knowledge to students in the course of the lesson, it is necessary to train students in higher education institutions to develop their working skills and to educate them through work. "Technology" plays an important role in introducing students to the world of work and profession. To improve its methodology, to strengthen its material equipment, to strengthen the connection of the school with the surrounding industry, to organize socially useful and productive work, to increase its educational economic efficiency and to combine it with education, to prepare students for work. Improvement is one of the urgent tasks of today [1,2].

While the technology lesson uses general didactic principles for other school subjects, it also has its own characteristics. Pupils are not engaged in the activity of knowledge, but in the activity of creation. Subjects, tools, and processes of the science of technology serve not as a simple learning object, but as an instructional tool, didactic material, and a technical tool of education that activates students' work. The science of technology as an educational subject teaches these and other features [3]. Studying the science of technology consists of studying materials, their properties, and making various items from them based on the properties of these materials. This process consists of teachers applying technological knowledge, analyzing the quality level of finished products through creative and technical thinking, and imparting professional knowledge to students. Teaching students to work from a young age will have a great effect on their future life. Along with working skills, it is necessary to develop such abilities as creativity, technical knowledge, and collective creativity in students. In one of the most authoritative philosophical dictionaries of the early twentieth century by the famous idealist philosopher E.L.Radlov, creativity is related to the creation of something, the ability to create is most characteristic of God, and man can only perform relatively creative actions [2]. Along with such statements, attention was paid to the existence of unconscious processes in the creative process. Later, as the scientific study of various types of creativity changed, so did the attitude towards it and the definitions given to creativity. Recently, attention has been focused mainly on the fact that the creation of a new product is related to creativity that did not exist before; creativity is manifested in various spheres of human activity, when new material and spiritual values are created.

Creativity is an activity that contributes to the creation, discovery of something previously unknown for a specific subject. Another point is related to the scope of creative activity. In social practice, as a rule, creativity is measured by new categories such as discovery, invention, rationalization. Recently, a lot has been said about innovative (innovative) activities related to the introduction of innovations into organizational and technological processes. But such activity can be called rationalization.

**Rationalization** - to improve the use of existing technologies (we only consider the aspect related to solving technical problems). So, we can say this: the inventor is primarily interested in the final effect, the function, the designer - the device that performs the function, and the rationalizer - the more rational use of the finished device for some personal purposes. A rationalization proposal is a solution to a specific problem to improve the performance of a specific problem locally (as opposed to an invention of general importance) in a new specific environment (for example, in some workshops of a factory), but not plant-wide but most production). In certain cases, a rationalization proposal can be an invention. Design can be linked to the activities of inventors and rationalizers, if their implementation requires the creation of certain designs. The practical difference between invention, design, and rationalization is to be found in the nature of the goals of each activity. The invention is aimed at solving a technical problem, a problem in general design creating a structure.

A project is a creative solution of an intellectual and practical nature carried out by students. Independent work of students under the guidance of the teacher. If we focus on the working definition of creativity, it
is appropriate to associate it with solving new problems or finding new ways to solve previously solved problems, solving various problems that arise in production, situational difficulties, looks and everyday life. Before considering the structure of a creative solution to a new problem, let's touch on general information about the types of technical creativity. Types of professional creativity include invention, construction, rationalization, design. There is a close relationship between all types of technical creativity. In the first period of rapid development of technology, such a division was not observed, and scientific literature mainly talked about inventive activity. Currently, there is a scientific and practical division of the proposal of discovery, invention and rationalization, which are carried out not only in relation to technical objects. Thus, discovery is the establishment of a previously unknown objectively existing property or phenomenon. An invention called a new solution to a problem that has positive significance for production, culture, etc. Inventions are divided into constructive (devices), technological (methods) and related to the creation of new substances [3,4,5]. Technological science opens the doors of opportunities for us to step into new areas of the educational system. Another clear example of this is that the science of labor education has been changed to the science of technology. The main reason for this is that the word "work" has a wide meaning and concept, and does not correspond to our time of advanced technology and technology.

**Conclusion.** It is necessary to form an innovative infrastructure by introducing digital technologies and modern methods into the technological education process. But in order to achieve a high level in this field, first of all, the material and technical base must meet the requirements of the time. To eliminate these shortcomings, the following measures should be taken:

- the actual content of technology taught in general secondary schools is not enough to form technological literacy, critical thinking and creativity competencies that can be applied in independent life;
- lack of metasubject competences and interdisciplinarity in technology education;
- the assessment criteria in the regulatory documents of technology are developed only for graduate competence and lack of textbooks, workbooks and teacher's books, multimedia applications, didactic materials;
- the lack of inclusion of elements necessary for the development of the economy of Uzbekistan, such as mechatronics, robotics, electrical engineering, automation, Arduino, in the content of the science of technology, has a negative effect on the professional qualities of future school graduates and specialists;
- lack of equipment and tools aimed at developing students' tactile competencies in the field of modern technology, mechatronics, robotics, electrical engineering, automatics in order to form a strong motivation for students to study;
- the material and technical base of the science of technology is outdated, it is not equipped with modern equipment and technologies, and proposals have not been developed regarding the provision of funds from the budget.

**References**

