

## PEDAGOGICAL CONDITIONS FOR DEVELOPING COMPETENCE IN ANTIQUÉ EQUIPMENT PREPARATION AMONG TECHNOLOGY SUBJECT TEACHERS

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**Abstract.** *The article analyzes the pedagogical conditions for the formation of competence in the manufacture of antique equipment in teachers of technology from a scientific, theoretical and practical point of view. In this direction, the system of theoretical knowledge, practical workshop activities, teacher-student traditions, project-based learning and the possibilities of innovative pedagogical technologies serving to improve the professional training of teachers are highlighted. Also, effective mechanisms for improving the methodological skills of teachers by integrating elements of national crafts into the educational process, combining the educational process with real labor activity, and developing creativity and labor culture in students are substantiated.*

**Keywords.** *technology education, professional competence, antique equipment, crafts, practical activities, workshop exercises, pedagogical conditions, project method, restoration, national decorative arts, methodological training, innovative approach.*

**Introduction.** In our country, the modernization of the education system, the orientation of the younger generation to professional development, and the preservation of national cultural heritage are recognized as one of the priority areas of state policy. In particular, technology, which is taught in general secondary schools, has significant didactic opportunities for the formation of practical skills and qualifications in students, the development of labor culture, and the teaching of the secrets of national crafts and traditional crafts. In this regard, improving the professional competence of technology teachers in line with modern requirements is one of the urgent pedagogical problems.

In today's globalization environment, many national values, including the traditions of crafts associated with the production of antique and historical equipment, are gradually being forgotten. However, this direction serves not only to preserve examples of material culture, but also to educate the younger generation in the spirit of aesthetic taste, creativity, patience and hard work. Since the process of creating antique equipment includes many practical activities such as woodworking, decoration, restoration, design and construction, it can be an effective tool for enriching the content of technology. However, the analysis of pedagogical practice shows that most technology teachers are unable to fully use this direction in the educational process due to the insufficient level of theoretical knowledge, practical skills and methodological preparation for the production of antique equipment. This requires the

development of scientifically based pedagogical conditions for the formation of special competence in this area. In particular, the issues of educational and methodological support, a system of practical exercises, exchange of experience based on the traditions of mentoring and studentship, and the introduction of innovative approaches that enrich the professional training of teachers are of particular importance.

Therefore, determining the pedagogical conditions for the formation of competence in the preparation of antique equipment in technology teachers, substantiating their content, structure, and effectiveness, is currently a relevant scientific problem from both a theoretical and practical perspective.

**Literature review.** The concept of teaching based on practical activity in the process of technological and vocational education has been substantiated by many foreign researchers. In particular, according to the principle of “learning by doing” put forward by John Dewey, knowledge is acquired directly in the process of practical activity and is strengthened through personal experience. This approach creates a methodological basis for organizing the production, design and restoration of objects in the science of technology [1]. Also, David Kolb's experiential learning model shows that teachers' professional skills are formed through the stages of reflection, experience, analysis and practical application. This model scientifically substantiates the effectiveness of workshop classes, project work and practical training in the preparation of antique equipment [2].

Lev Vygotsky's theory of the zone of proximal development plays an important role in explaining the socio-cultural nature of professional and pedagogical activity. According to him, complex labor operations are mastered faster in teacher-student cooperation. This approach forms the theoretical basis for integrating traditional craft experience into the pedagogical process [3].

These studies show that a model of teaching based on practical activities develops not only technical skills in teachers, but also creativity, problem-solving, and design thinking.

The methodology of vocational and technological education has been studied in depth by scientists from the CIS countries. In particular, Sergey Batyshev emphasizes that practical training in vocational education, which is close to the production process, forms solid professional skills in students. He indicates the modeling of production technologies and the introduction of a workshop environment into the educational process as an effective pedagogical condition [4].

Viktor Bepalko, on the other hand, developed the theory of pedagogical technologies and substantiated the mechanisms for preliminary design of the teaching process, guaranteeing the result, and gradually forming competence. This approach allows for modular training of skills in the manufacture of antique equipment, clearly defining assessment criteria, and monitoring the professional development of teachers [5].

The work of CIS researchers emphasizes the integration of technological education with production, project activities aimed at the manufacture of real objects, and the priority of practice-based methods.

The issues of teaching technological subjects and developing vocational training based on crafts have also been widely studied by scientists of our republic. In particular, H.M.

Berdieva and B.B. Amonov scientifically substantiated the fact that the use of elements of national applied art in technological education increases students' professional interest and creative activity [6].

D. Yusupova shows that the introduction of interactive methods and innovative pedagogical technologies into the teaching process develops the methodological competence of teachers. This approach serves as an important methodological basis for the effective organization of workshops, project work, and practical seminars [7].

Also, studies on the integration of national crafts and applied decorative arts into education emphasize the possibility of forming the aesthetic taste and work culture of young people through traditional woodcarving, furniture making, and restoration elements. This indicates the didactically justified inclusion of the process of making antique equipment in the content of technology science.

**Main part.** In the process of teaching technology, along with the formation of practical labor skills in students, the teacher himself is required to have a high level of professional and methodological training. In particular, the effective organization of such complex and multi-stage activities as the manufacture of antique equipment requires the teacher to have in-depth knowledge of woodworking technology, artistic decoration, restoration, materials science, labor safety and the basics of design. Therefore, the formation of competence in this area will not give the expected result if it is carried out randomly, but only on the basis of purposefully organized pedagogical conditions. First of all, it is important to systematically enrich the theoretical knowledge of teachers in the educational process. A teacher who does not have in-depth knowledge of the historical and cultural significance of antique objects, their structural structure, decorative styles, types of wood and their physical and mechanical properties, traditional assembly methods and restoration principles cannot organize this activity qualitatively. Therefore, it is necessary to strengthen theoretical preparation through advanced training courses, special seminars, and workshop-based training. This process ensures that knowledge is transformed not as simple information, but into a professional tool that serves to solve real practical tasks.

At the same time, the most important factor in the formation of competence is practical activity. The process of making antique equipment consists of successive stages such as design, sketching, material selection, preparation of details, assembly, decoration and finishing, and each stage develops a certain skill of the teacher. During practical training, the teacher goes through the full cycle of creating an item, analyzes errors, solves technological problems, and thereby gains professional experience. Such a form of teaching based on experience, while strengthening theoretical knowledge, develops independent decision-making and creative thinking. Another pedagogical condition is the creation of a cooperative environment based on the teacher-student principle. Master classes organized in collaboration with experienced craftsmen, masters and production specialists allow teachers to master subtle technological secrets. Such direct exchange of experience is of great importance in preserving traditional professional secrets, correctly applying national decorative elements, and increasing the aesthetic value of items. In this process, the teacher is formed not only as a performer, but also as a creative person who becomes an example for students.

It is also important to introduce modern pedagogical and information technologies into the educational process. Working on the basis of the project method, problem situations, practical tasks, portfolios and assessment criteria systematizes the teacher's activities. Work such as creating designs using computer programs, 3D modeling, creating technological maps, calculating material consumption serve to combine traditional crafts with modern approaches. As a result, the effectiveness of the pedagogical process increases, and the teacher can plan his activities on a scientific basis.

In addition, the formation of a motivational environment is also of particular importance. Since the result of the process of making antique equipment is a visible, aesthetically valuable product, the teacher's interest and responsibility for his profession increases. Organizing exhibitions, creative competitions, demonstration of the results of workshop work, and platforms for sharing experience stimulate the professional growth of teachers. A teacher working in such an environment strives to work on himself, master new technologies, and constantly improve his skills.

**Conclusion.** The above theoretical analysis and practical approaches show that the formation of competence in the manufacture of antique equipment among teachers of technology is one of the urgent tasks facing the modern education system. This direction serves to develop not only the technical and practical skills of the teacher, but also his methodological literacy, creativity, aesthetic taste and professional responsibility. Since the process of creating antique items requires complex labor operations, accuracy and patience, it is an effective tool for ensuring the professional development of the teacher.

The results of the study confirm that the formation of competence should not be accidental or limited to theoretical training. It is effective through consistently organized pedagogical conditions, including special educational and methodological support, practical workshop training, exchange of experience based on the traditions of the teacher-student, the use of project and innovative technologies, and the creation of a stimulating educational environment. It is the combination of these factors that allows for the comprehensive development of a teacher's knowledge, skills, and competencies.

Also, the integration of the activity of making antique equipment into the content of technology science is of great didactic importance in preserving the traditions of national crafts, instilling a spirit of respect for historical and cultural heritage, and in guiding the younger generation towards a profession. This serves to connect the educational process with real life, form a work culture among students, and ensure practical effectiveness. In conclusion, the development and implementation of a scientifically based pedagogical system for the formation of competence in making antique equipment among technology teachers is an important factor in improving the professional skills of teachers, enhancing the effectiveness of lessons, and bringing the quality indicators of technological education to a new level. Consistent methodological work carried out in this direction will ensure the practical orientation of the educational process in the future and create a solid foundation for the training of qualified and creative pedagogical personnel.

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