Innovational methods of raising the profile of the pedagogical profession.

(on the example of a practical subject profile)

Zulaykho Islomovna Jurayeva¹

*¹Samarkand regional center for retraining and advanced training
of public educators*

E-mail: zjurayeva008@gmail.com

ABSTRACT

The article is devoted to the currently topical problem of forming the professional competence of future teachers of technology. The role of labour training in the formation of values and the active life position of the individual is considered. The main methods of the study of this problem is a retrospective analysis, allowing a comprehensive and systematic study of the impact of various factors on the process of formation of professional and pedagogical competence of the future teacher of technology. Essential characteristics of the interdisciplinary approach as factors in the formation of professional and pedagogical competencies of students have been identified. The authors offer own interpretation of the formalization of the future teacher's professional competence in technology, including the mastery of three fundamental components: a high degree of mastery of the conceptual teaching apparatus; high quality of pedagogical problems solving; mastery of professional terminology and basic categories of pedagogy in the process of solving educational and professional problems. The materials of the article are of practical value for students of pedagogical universities, technology teachers and specialists, whose field of activity is connected with labor training and education of students in training organizations.

Keywords: stages of formation, interdisciplinary approach, professional and pedagogical competence, teacher, technology, pedagogical education.

1. INTRODUCTION

The new generation of educational standards places high demands on teachers. In order to raise a good citizen, a teacher must be a role model, able to design collaborative activities with students, ready to cooperate, open to communication.

The readiness to learn and improve their skills in self-education, to discuss problems in dialogue, and to test the knowledge and experience gained in practice is of great importance. The competence of a technology teacher includes such qualities as initiative, cooperation, ability to work in a group, communication abilities, ability to learn, evaluate, think logically, select and use information.

The main task of each teacher is not only to give students a certain amount of knowledge, but also to develop their personal competencies and interest in teaching, to activate independent cognitive activities and to teach: a) to learn; b) to know; c) to discover; d) to do; e) to live; f) to be human. In other words, the teacher's task now is to organise students' independent cognitive activities, teach them to independently acquire knowledge and apply the knowledge they have acquired in practice.

Modern society is characterised by changes in the environment and in everyday life, and technology is seen as the most important factor in the efficiency of a person's life activity as a rational way of achieving a goal where organizational and information components dominate and require appropriate readiness for creative activity. In this connection, it is of vital importance that young people form an idea of how to transform the natural and artificial environment around them.

In these conditions, the education system must, on the basis of a competency-based approach, ensure the formation of a set of competencies for the future teacher, the lack of which is explained by the predominance of forms and methods in traditional training models focused on the reproductive acquisition of knowledge and skills, which does not ensure the competitiveness of a teacher training university graduate. At the same time, it becomes important to substantiate the conditions for the formation of future teachers' competencies, including technological competencies.

2. LITERATURE REVIEW

Different aspects of ensuring competence as an indicator of the subject's professionalism are devoted to the research of V.A. Adolf, A.C. Belkin, M.V. Bolina, V.N. Vvedensky, H. Davydova, E.F. Zeyer, N.V. Kuzmina, A.G. Nikiforov, A.K. Markova, V.A. Slastenin, A.B. Vasilyev, E.F. Zeyer, Efanova and etc., revealing the essence of competence and professionalism, various types of professional competence of a teacher.

The work of P.R. Atutov, S.Y. Batyshev, G.M. Gadzhiev, P.A. Galustov, E.M. Muravyov, V.A. Polyakov, M.N. Skatkin, V.D. Simonenko, Yu Khotunseva and others are devoted to the improvement of the process of preparing the future teacher of technology, as well as to the study of general theoretical aspects of ensuring the connection of labor training (technology) with the basics of science.

The problems of educational process organization for the purpose of formation of technological culture and readiness of future teachers for transformative activity are considered in dissertation studies of V.D. Simonenko, N.V. Matyash, A.N. Sergeeva, I.Yu. Bashkirova [1], N.V. Sayapina [2]. A certain influence on the solution of the problem was made by scientific works disclosing the content, methods and organizational forms of training of technology teacher Yu. V. Lvov, E. V. Romanova, E. V. Popova, N. G. Isaenkova [3; 4].

3. THE PURPOSE AND OBJECTIVES OF THE WORK

The methods that help to solve the research tasks are analysis of pedagogical phenomena, study of psychological and pedagogical literature and regulatory documentation on the problem under study. Also, survey (conversation, interviews, questionnaires, testing) methods; expert evaluation; observation; modelling; pedagogical experiment; methods of mathematical and statistical processing of the results of the experimental study were also used in this research.

4. MAIN PART

The problem of forming the professional competence of future teachers of technology as an element of humanisation of teacher education is undoubtedly relevant at the present time and is caused by the objective need of society to train competitive employees of the education sector who are effectively carrying out their professional activities in the conditions of high technology development. Fundamental changes in the social and economic sphere make it important for children to develop a desire to work in order to improve their education and professional training. Formation of children's desire for a way of working, promotion of systematic inclusion of the modern generation into working life, their introduction to the culture of educational and socially useful technical work, increase in the creative component of design and technological activity of students should remain the core of the modern educational system in the conditions of its humanistically directed transformation, reform and democratization.

The content of the professional training of future teachers of technology shows that there is a gap between the traditional system of training of future teachers of technology and the need to humanise this process based on systematic, interdisciplinary and personalised approaches. The search for a solution to this problem is relevant for teacher education in general and technology teachers in particular, which is due to the pronounced interdisciplinary nature of their professional and pedagogical training, the high level of danger (risks) in the professional activities of technology teachers and the increased level of their responsibility for physical and psychological safety, occupational health and safety of students.

The improvement of technological training based on an in-depth study of the theoretical and methodological foundations of spiritual, moral and labour education is becoming an objective necessity in the context of modernising higher teacher education. The development of production technologies has always had an impact on society and people's relationships, and ultimately on the status of the state. However, the technological factor acquires fundamental importance: an exceptionally high level of technology development will facilitate progress towards the goals adopted by society and proclaimed in the Constitution of the Republic of Uzbekistan.

Of course, one of the main factors affecting the technological level of society, together with economic and political factors, is the vocational and educational factor. Consequently, the government's priority task is

to implement a strategy for the targeted vocational and educational development of society, and the formation of students' needs for systematic work should become a priority in the context of modernising education.

Meanwhile, the educational and development potential of labour activity is underestimated and the value orientations of physical labour are being eroded. In educational organisations, the subject 'Technology' is classified as secondary and may be replaced by other disciplines, if not absent from the curriculum. There is a reduction in the time spent on labour training and education. All of the above facts show that there is a dismissive attitude in our country towards educating the modern generation at work: in France and Japan, for example, up to five lessons per week are devoted to working life in primary school. Analysing the allocation of teaching time to subjects in primary school in the USA, we can conclude that subjects such as mathematics, handicrafts, music and fine arts occupy equal positions in the curriculum [5, p. 37].

The role of labour education for children has been devalued in public consciousness. It usually boils down to the development of physical work skills among students. Insufficient availability of subject equipment in schools leads to the prevalence of low content, primitive labour activity and, as a result, to the formation of a negative attitude among children to it. The attractiveness of productive labour for young people, whose activities are limited to service mediation, is decreasing, which does not represent the interests of the country as a whole and does not increase its national wealth.

In this connection, special, personal and professional requirements are imposed on the technology teacher [6, p. 16]. There is no doubt that a teacher must have not only scientific and professional knowledge about people and phenomena, but also knowledge with a humanitarian component, and must be armed with modern pedagogical competencies and humanistic skills. This task can be performed not only by humanitarian disciplines, but also by disciplines with a profile, technical and technological orientation, aimed at forming and developing rational and moral and ethical qualities. Consequently, the problem of the teacher's personality is becoming particularly important today. The renewal of the school and the education system as a whole depends on the teacher's position, his ability to design comfortable and psychologically safe conditions for the subjects of the educational process, his attitude to the profession, his inner state and personality [7, p. 105].

In determining the theoretical basis for the development of students' professional and pedagogical competencies, we identify the stages during which these competencies are systematically developed and improved. An important means of developing students' pedagogical competence is interdisciplinary integration, which is connected with the purposeful construction of logical links in a single conceptual space of pedagogical activity and contributes to solving problems using a complex of competences mastered by students. The first stage is the study of pedagogy and philosophy courses. The second stage is to ensure the professional orientation of students' personality, i.e. students' readiness to apply philosophical knowledge in educational work, which results from the movement of analysis of pedagogical concepts from their philosophical basis to pedagogical interpretation. Finally, the third step is to ensure inter-subject links between pedagogy and the fundamental disciplines of teacher training - psychology and philosophy. It should be noted that it is necessary to widely use in teaching pedagogy and psychology the technologies of teaching design activity [8, p. 134], in particular, the design of psychologically safe educational environment. A teacher who knows the technologies of designing comfortable and psychologically safe conditions will be able to effectively organise the work training of students and accompany their psychological mastery of specific technologies.

The analysis of the above approaches to the problem of forming students' professional competences in the process of pedagogical education makes it possible to consider their formation as the result of mastering: the necessary thinking qualities; a system of special characteristics of professional thinking; thinking operations accompanied by conscious operation of the pedagogical concept apparatus.

We understand the formation of the professional competence of the future teacher of technology as the unity of mastering the following components of professionalism: a high degree of mastery of the conceptual teaching apparatus; high quality of solving educational and professional pedagogical tasks; a high degree of efficiency and mandatory use of concepts and categories of pedagogy in solving problems, i.e. the functioning of the conceptual apparatus in a mode of conscious, active and creative application [9]. If we consider the formation of pedagogical competence in this way, we can easily differentiate the criteria of formation and ensure reliable diagnostics, which seems to be an important aspect in terms of teacher education practice. Let us describe each of these components in more detail.

One of the elements of students' professional thinking is the high quality of their pedagogical tasks. Two types of problems are distinguished in the psychological and pedagogical literature: educational and professional, or real problems arising in the course of a teacher's practical activity [10, p. 46]. A pedagogical

task is one of the means of developing pedagogical skills and, ultimately, it is a means of improving the professional competences of a future teacher. If in a real task a teacher is oriented towards changing some initial state (a situation, objects of his/her activity), then in solving the task a student is much more busy analysing his own reasoning and assessing the validity of his position and the positions of his colleagues. In solving a real problem, practical thinking becomes an integral part of professional activity. The inseparability of thinking from performance radically changes the very process of thinking and the search for optimal and the only means and ways of solving a real problem that can be implemented in certain conditions. The specific features of professional tasks also include: the complexity of relationships and their diversity in content, difficult visibility, a small degree of reliability, inconsistency, variability and incompleteness of conditions.

As is known, the professional competence of a technology teacher includes: mastering the principle of teaching technology based on the connection of disciplines, mastering modern cultural knowledge; mastering modern innovative pedagogical technologies, active and interactive methods of teaching, advanced pedagogical experience; forming the ability to design a lesson with modern requirements in mind, the ability to conduct a self-analysis of work. And also, disclosure of the creative potential of the teacher by involving him or her in research activities, experimental work, forming the ability to systematize and summarise their own pedagogical experience.

The modern teacher should:

1. Raise qualifications in his/her subject area and develop his/her professional competence.
2. Improve the methodological culture and master different methods and techniques.
3. Creatively use innovative technologies and the pedagogical experience of colleagues.
4. Develop didactic material, design the lesson taking into account modern requirements.
5. Improve the ability to analyse their own activities and participate in experimental work.

Participate in scientific and practical conferences, seminars, etc.

In the process of organising the learning process, the teacher must apply various forms of training: - lectures, - practical classes, - seminars, - round tables - small group sessions, - project activities, - development of didactic and methodological materials, - development of electronic multimedia products, - individual counselling and presentation of the developments. In today's conditions, the school needs to move from information orientation to personal competence and overcome the great inertia of traditional teaching in the disciplines it teaches. Active and interactive teaching methods serve this purpose.

A modern teacher must have the following interactive methods of teaching using and analyzing video and audio materials practical task of case design, group discussion of creatively problematic feedback through intensive social interaction presentations of ideas modular design study of role models testing the exam with the subsequent analysis of the result and others (solution and compilation of various entertaining tasks of problem situations of puzzles of brainstorming discussions).

Some elements of new pedagogical technologies can be used in professional work, which activate students and encourage them to study the subject in a creative way. The following technologies have become the most acceptable:

The project method is a pedagogical technology oriented not towards the integration of factual knowledge, but towards its application and the acquisition of new knowledge, sometimes through self-education. The method is a technology for organizing educational situations in which students solve practical and problematic tasks in group work, where they can be independent in making decisions and are responsible for their choice and the result of their work, creating a creative product. The project work is based on the development of cognitive and creative skills of students, the ability to independently construct their knowledge, the ability to navigate in the information space and the development of critical thinking. The project method is always focused on students' independent activity - individual, pair or group activity, which students perform during a certain period of time. This approach is organically combined with the learning method in cooperation (student and teacher - partners). Before starting the practical part, a lot of research work is carried out: - identification of the topic, problems, goals and objectives - work with specialized literature, magazines - practical tasks in technology lessons - stand design - project protection.

Practical work. Lesson objectives: - Give an overview of the properties of fabric. - Repeat the properties of the threads. - Introduction to measuring and threading techniques in the needle. - Consolidate previously acquired skills (organising and keeping the workplace in order, working with scissors, marking by template, forming by bending, gluing neatly). - Develop the ability to compare, transfer known knowledge to a similar situation (comparison of paper and fabric properties). - Develop spatial concepts, observation, attentiveness, perseverance, neatness, ability to work with drawings in a textbook.

Types of activities. To observe and name the properties of the fabric. Compare the properties of different types of fabric and paper. Perform simple studies (observe, compare, compare) of the technological operations and methods under study: 1) technological methods of material processing mark-up - by eye, by pulling a thread, selecting details - cutting out with scissors, finishing with a straight stitch, 2) design features of products and methods of work with the tools used. Make the simplest generalisations. Analyse the design, technological, decorative and artistic features of the products offered, highlight the known and unknown. Look for information in the application. Plan a sequence of practical actions to achieve the task. To organise the activity: to prepare the workplace, rationally to place materials and tools. Carry out self-monitoring of the quality of work performed. Generalise (realise, formulate) what is new and what has been learnt in the lesson. Carry out practical work. Embody the image in the material based on graphic images, observing safe and rational methods of work.

Integrated technology. One of the leading trends in the development of modern education is the integration of its content. The process of integration (from lat. integratio - connection, restoration) is the unification of previously separated parts and elements of the system into a single whole on the basis of their interdependence and complementarity. Inter-subject links, which are carried out during lessons, help to create a holistic picture of subjects, phenomena and material properties. Children's knowledge becomes more important because by applying it to different subjects, we help to bring the educational process into a single whole.

The Technology subject is integrated with all general education subjects. Knowledge from mathematics, physics, history, biology, chemistry and fine arts can be applied. The technology teacher is particularly interested in the idea of developing and conducting integrated lessons on technology and the visual arts. This is how an integrated lesson on "Embroidery in folk costumes" can be held in 5th grade. The aim of the activity is to awaken interest in folk traditions and crafts and spiritual values. In this way, the integrated lesson "Technology - Fine Arts" gives students the opportunity to make historical comparisons, analyse and draw conclusions, and use their acquired knowledge and skills in practical activities and everyday life.

The analysis of the process of forming the professional competence of future teachers of technology has allowed us to identify the following trends: the need to enrich the variational educational programmes of training of future teachers of technology with the content of humanitarian knowledge based on systematic, interdisciplinary and personal-oriented approaches; expansion of methods and technologies of training future teachers of technology in order to establish and develop professional thinking and a reflective and subjective position. The trends revealed show that the process of forming the professionalism of technology teachers is multidimensional and may have a corresponding planned orientation in the educational process. Thus, the humanitarian component of the professional training of future technology teachers is not only an indicator of the quality of teacher education, but also spiritual and moral culture, professional and psychological potential and motivational and value orientation.

An analysis of the practice of readiness of teachers of technology and entrepreneurship to include schoolchildren in transformative activities, which is the basis of technological competence, indicates the lack of a clear understanding of its essence, structure and the absence of scientifically based recommendations on the formation of technological competence, which highlights the problem of resolving contradictions between the two:

- the importance of technological competence in teachers' work and the lack of a mechanism for its formation in the system of higher professional education;
- the requirements for a teacher of technology and entrepreneurship in terms of technological skills and the absence of a training model that facilitates the formation of technological competence;
- the need for technological competence in the management of schoolchildren's transformative activities and the lack of pedagogical conditions for its formation in the training of future teachers.

The need to resolve these contradictions and the lack of a scientifically substantiated model for forming the competence of future teachers of technology and entrepreneurship determines the research problem, the essence of which is in developing the content and process of forming the technological competence of future teachers of technology and entrepreneurship.

5. CONCLUSION

A study on forming the technological competence of a future technology teacher has been conducted to draw the following conclusions:

1. Changes are taking place in education in order to raise the national education system to a higher level and adapt it to social and economic conditions, taking into account global trends in education, including higher education.

2. Modernisation of the education system is intended to help preserve what made it different from other education systems (fundamentality, science, practical orientation, etc.), since education is the main factor of socialisation and adaptation, cultural assimilation and the transmission of values.

3. In the state's education policy at the present stage, it is important to develop the professionalism and professional competence of future teachers, the importance of which is determined by the breadth of content, interactivity, etc. At the same time, an important characteristic of professional competence is the technological competence of the future teacher, which is an integral quality of the individual, manifested in the general ability and readiness to participate independently and successfully in activities based on the skills and experience gained during the training process.

4. Technological competence of the future teacher as an integral part of professional competence is a set of motivational, organisational and control skills and personality traits that facilitate the inclusion of schoolchildren in transformative activities based on a certain algorithm of actions.

The development of science and technology will not bring happiness to humanity without radical changes in the socio-spiritual, cultural and moral spheres. Its influence as a powerful force for the future of humanity depends in many ways on the level of morality, cultural and spiritual maturity of the people, the degree of respect for universal values and the professional and personal competence of the leader.

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