



## FUTURE TECHNOLOGICAL EDUCATION OF PROFESSIONAL TEACHERS' COMPETENCE OF FORMATION MECHANISMS

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**M.M.Qodirov**

Free Researcher, Associate Professor (PhD) At Tashkent State Pedagogical University, Uzbekistan

### ABSTRACT

This article serves to increase the efficiency of the mechanisms of formation of professional competence of highly qualified technological education teachers in pedagogical institutions of higher education.

### KEYWORDS

Specialist, education, professional, technology, competence, competence, teacher.

### INTRODUCTION

An information-educational environment aimed at forming the professional qualities of future technological education teachers has been introduced in our republic, the material and technical base, regulatory and legal documents that ensure the development of professional qualities have been developed. In the Strategy of Actions for the further development of the Republic of Uzbekistan, "stimulating research and innovation activities, creating effective mechanisms for the implementation of scientific and innovation achievements" was defined as a priority task. This creates conditions for the improvement and introduction of methods and tools

for the formation of professional qualities of future teachers of technological education [1].

Today, during the activities of human life, the rapid development and changes in the world, views on the value of people, require a reconsideration of the approach to the issues of formation of professional competences of the future specialist [3].

John Raven writes about this: "Society needs new confidence and hope. But in the implementation of these, it is necessary to take into account the origin of people, the general value system, the social process and the education system. <...> If someone wants to



form competence, then it is necessary to help people to understand what activity is carried out in this process and how it is carried out, their place in this process and the place of other people in society" [6].

In particular, the essence of pedagogical activity in this process will also change seriously. The practice in schools, which is carried out in the formation of the professional competence of future technological education teachers, develops their educational activities by forming the education and knowledge of future teachers based on their qualifications and skills.

The development of education is increasingly becoming one of the most urgent issues, including the assessment of the skills of pedagogues, the level of their professional competence, their development, and the formation of their professional skills [7].

In this regard, M.I. Lukyanova writes that one of the urgent issues is the increase in the demand for teachers of general education schools, that is, the increase of pedagogues with knowledge and qualifications, which will help the formation of professional competence among teachers. The importance of this issue becomes more specific with the spread of the idea of humanization and humanitarianization in education and reforms in the educational process [4].

In the process of studying psychology, didactics, legal and methodical literature, that is, about the issue of (professional) competence in the pedagogue, the question of the structure of the professional competence of the future technological education teachers was transversal.

According to T.M.Sorokina, professional competence of a teacher is defined as unity of theoretical and practical training in the course of pedagogical activities. Competence is seen as a stage of maturity of a specialist, that is, in the state of appearance of the

basis of pedagogical activity. The competence of the teacher determines the level of finding solutions to pedagogical tasks arising in different situations.

In T.M.Sorokina's research, the teacher's professional competence is explained as a dynamic process of professional preparation in his work, a feature of professional growth, a reason for professional changes [7].

V.N. Vvedenskyi said that the appropriateness of the introduction of the concept of "professional competence" is that it has a broad structure, its unique integrative nature, and it combines the concepts of "mature specialist", "competence", "professional skill" with a broad meaning, etc. counts. However, he also points out that the concept in question is similar to the concept of "competence". According to him, competence is a specific characteristic, and competence is the essence of specific professional or task characteristics [2].

M.I. Lukyanova explains that it is understood that the teacher's psychological-pedagogical competence, the specific qualities of professional training in pedagogical activities are of a high level and that it is carried out in interaction with the students during the educational process. Sections of psychological-pedagogical views are defined as a component of psychological-pedagogical competence [4].

A.V. Khutorsky proposes three levels of hierarchical competence:

The three-level hierarchical competence proposed by A.V. Khutorsky emphasizes the possibility of specific formation within academic subjects [9].

At the same time, Andrey Viktorovich clarified the list of basic competence as the basis of the goal of general education, that is, he gives the opinion that based on



the social competence of the future teacher, it creates conditions for him to acquire social competence during his educational activities.

It identifies seven key aspects of educational competence:

1. Semantic-value competence. This type of competence is related to the value of the student's thinking within the framework of the worldview, his ability to understand and see the environment and use it effectively during his work, he can always strive towards his place and goal, and it determines the result of his actions. In particular, this type of competence creates a basis for self-awareness of the future teacher during his educational or other activities. The individual educational program and general activity of the future teacher also depend on this type of competence.

2. Multicultural competence - a set of questions in a certain area, future teachers should be aware of them, should be able to perceive them during their work. These are the characteristics of national and universal culture, the spiritual and cultural basis of humanity and human life, the cultural basis of individual nations, family, social and general traditions, the role of science and religion in human life and its influence on the world, in general, the competence to form cultural activities using time effectively.

3. Competence of learning. In the framework of this competence, future teachers determine the essence of self-awareness and logical thinking, mastery of methodological sciences in the course of their work. This includes knowledge and estimation skills, planning, analysis, reflection, and self-evaluation in learning activities. Future teachers will acquire creative skills during their production activities: they will learn knowledge directly from reality, they will be able to act correctly in non-standard situations, they will be able to use intellectual methods in problematic situations

and find solutions to them. Literacy requirements are defined within this competence: ability to distinguish concrete facts from assumptions, to have the ability to measure, to be able to use probabilities correctly, to know statistical and other cognitive methods.

4. Information competence. With the help of existing objects (television, tape recorder, telephone, fax, computer, printer, modem, copier) and information technologies (audio and video, e-mail, mass media, Internet), to study and analyze information, to get the necessary information and use it, it teaches and shapes how to change and save it, to transmit the received data. This type of competence forms the competence of future teachers in the correct use of information obtained from the learning process and the environment.

5. Communicative competence includes the set of knowledge about the necessary languages, the ability to work with collective and individual persons, and the ability to communicate and work with different social classes and groups, includes a set of knowledge and skills. The future teacher should be able to imagine writing a letter, filling out a questionnaire, writing an application, asking questions and communicating, and others. Acquiring this competence in the educational process creates conditions for communication at all stages, and there are opportunities to conduct communication at an adequate level.

6. Social work competence. This type of competence means having skills and knowledge about the activities of citizens in society (knowing the duties of citizens, observers, voters, representatives), that is, in the field of social work (consumer, buyer, customer, producer rights), including family relations and obligations, economy and within law and career choice. This competence includes, for example, the ability to analyze the situation in the labor market, to act in the



interests of the individual and the public, and to have the etiquettes of work and citizenship in interaction. Future teachers should have minimum literacy and social life skills.

7. The competence of personal growth helps and directs the formation of physical, spiritual and mental activities in a person. Here the future teachers themselves are shown as the concrete object. She devotes her career opportunities and interests to self-awareness and development, psychological literacy, cultural awareness, and self-discipline. This type of competence includes the rules of personal hygiene, taking care of one's health, sexual literacy, internal ecological cultures. It also includes the ability to lead a safe and quality lifestyle.

In particular, in the main educational competence of Andrey Viktorovich, generalization is carried out in the interrelationship of general education and components of the following educational structure:

- specific objects being studied in reality;
- general cultural knowledge studied in reality;
- general education knowledge, skills and methods of activity [9].

Although the given proposal meets the stages in the educational system, it is still necessary to adapt it to the higher education system, taking into account the professional competence of future technological education teachers and dividing them into separate areas.

What is correct and preferable for us is the approach of V.N. Vvedensky, although his research is devoted to the professional competence of the pedagogue in the system of professional development.

We agree with his opinion, that is, "If the formation of the future pedagogic competence is seen within the

framework of the higher education system, then it is possible to talk about the knowledge, skills and professional abilities of the specialist training" [2], in such an approach, only the qualification requirements are taken into account, the professional competence of future technological education teachers and personal failure to take into account the requirements is in the competence of the professional pedagogue and in the development of his identity. For this reason, we propose this professional competence system as an adaptation to the form in the higher education system.

Using this approach, communicative, informational, regulatory and intellectual-pedagogical competences are distinguished, and the last type of competence is shown as the basis for the rest.

Communicative competence of the pedagogue - curbing passions (in the sense of adaptation), embodying the professionally important, integrative aspects; extroversion (a concept whose content is opened by another concept and effective leadership); the ability to establish correct and opposite communication; public speaking skills; listening skills; awarding skills; politeness, smooth communication skills.

Informational competence includes information (knowledge) about oneself, future teachers and their parents, and other pedagogues.

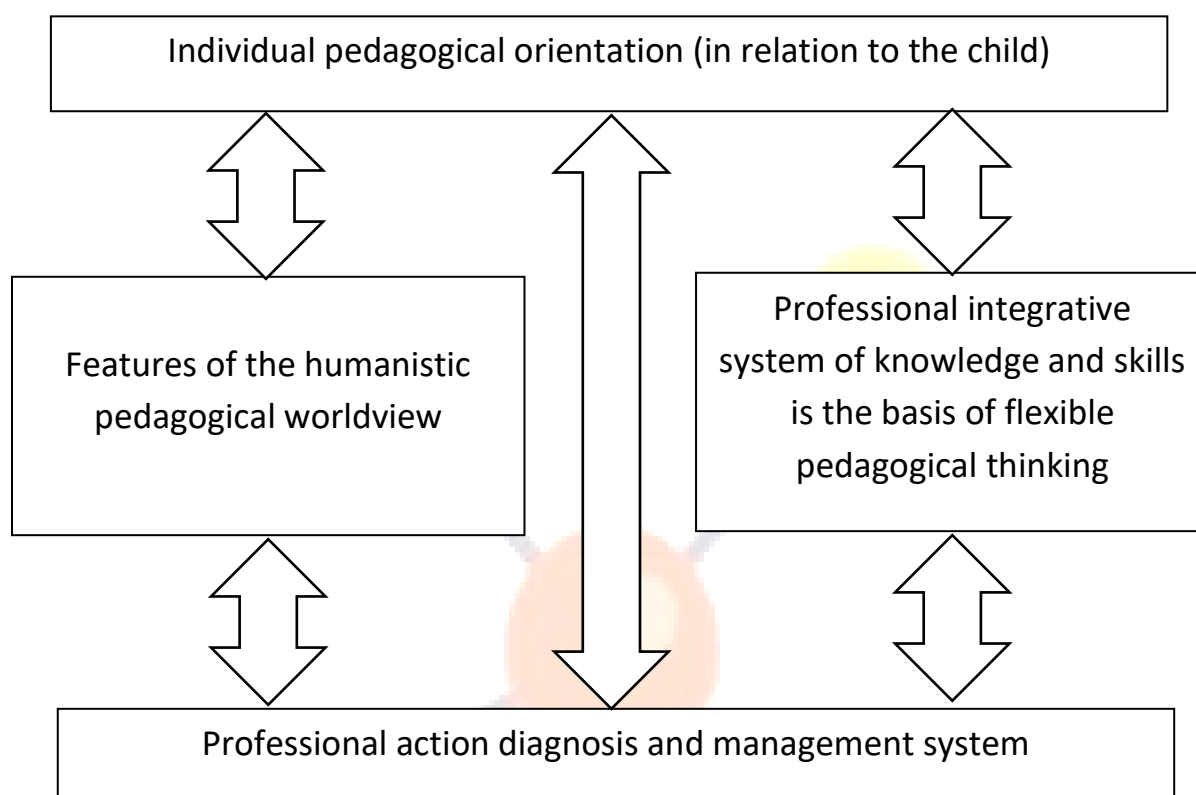
Regulatory competence defines the pedagogue's ability to manage himself. It includes the following: goal setting, planning, agility and decisive activity, evaluation of the result of activity, reflection.

The author sees intellectual-pedagogical competence as a set of skills of analysis, synthesis, comparison, abstraction, generalization, clarification, and as intellect: analogy (similarity), imagination, flexibility and critical thinking [2].



Structure of modern (actual) professional competence  
of future technological education teacher

Figure 1



Thus, we considered three views on the structure of professional competence of a pedagogue. Now, in the course of our work, we will consider the opinions about the structure of the professional competence of the future teacher of labor education.

In T.M.Sorokina's review, professional competence in the education system in pedagogical directions is expressed in the above diagram, the basis of the profession of a teacher in primary schools.

Its special feature is "child-oriented". The fact that the teacher as a pedagogue is aimed at the child causes the future teacher to aim to study, to know the environment, to understand people and himself. He

assumes that caring for the child, interest, love for him will help him develop as a person and maximally activate his individuality.

Orientation of this nature is expressed in the teacher of a modern technological education school in the following aspects:

A) specific features of the humanist pedagogical worldview, creating a "pedagogical environment" for such teachers of young future teachers, their management and implementation in this system. Such a system includes the following: specific characteristics of the interaction between the group of students and the teacher; organizing a conversation with a group of parents and developing his professional skills.

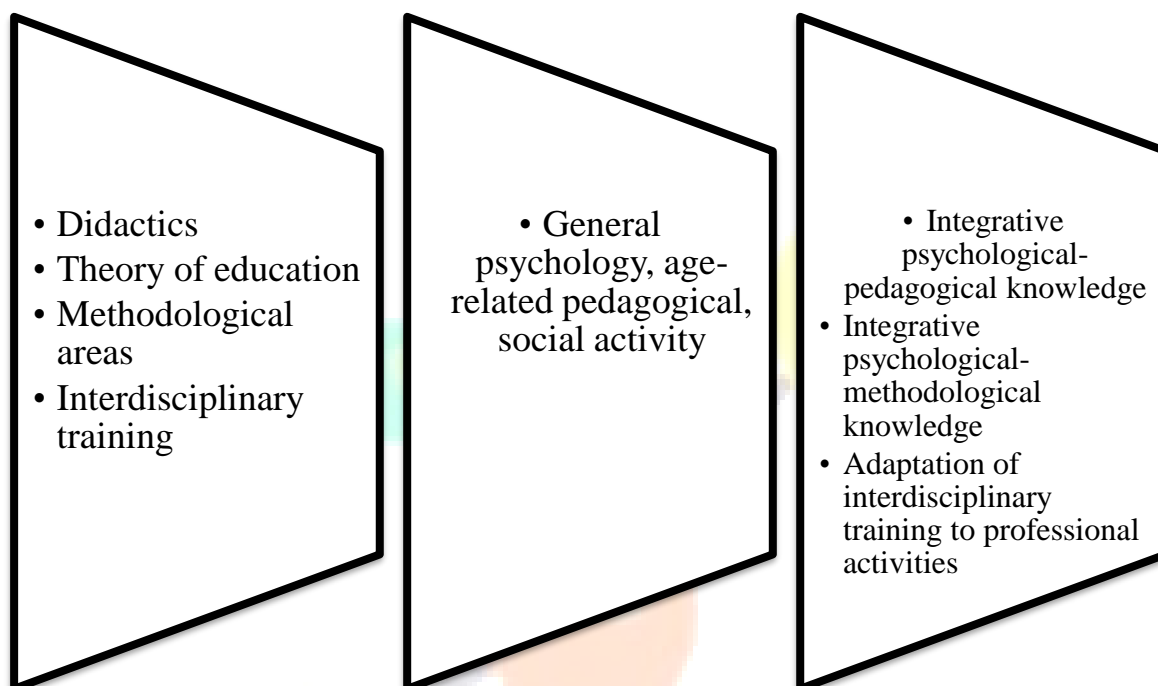




B) knowledge and skills in the professional integrative system are implemented through the teacher's excellent pedagogical thinking. The basis of the

teacher's integrative knowledge system is psychological knowledge.

Figure 2



Psychological knowledge "retains" the main mental difficulties encountered by the future technological education teacher in the process of preparation and in the development of his future professional activities. creates lightness.

C) individual orientation to "students", technological education is the structure of the main professional competence of the school teacher, including it is manifested in diagnostic and management activities.

According to Tatyana Mikhailovna, this form of professional competence includes the following professional actions:

- analytical, helps the teacher to determine the characteristics of the development of schoolchildren

through their diagnosis in the course of their studies through the structure of educational activities;

- design, with the help of which the teacher-pedagogue gives the opportunity to produce available options for the development of students, of course with the support of the teacher and parents;

- scientific forecasting creates opportunities for the teacher to create promising programs for the development of children in the process of learning, including programs for self-improvement.

Thus, the category of "professional competence" of a technological education teacher was seen by T.M. Sarokina as a generalizing concept, that is, it defines the personality of the teacher as a unique pedagogue-educator and psychologist. It is based on the English



concept of the pedagogical possibilities of the pedagogue, the characteristics of the group, the uniqueness of the perspective of its development (relevance of public aspects and characteristics of parent groups, etc.). Such a conceptual understanding creates an environment of professional flexibility in the pedagogue, the selection of pedagogical technologies (not transfer!), methodical, which allows effective implementation of the main goal - the development of the teacher of technological education as a positive person [8].

The structure of professional competence of future technological education teachers includes:

1. the causal part, the future technological education teachers gradually develop their educational and professional activities in a specific direction, that is, based on the general development of the personality of school-age children;
2. part of professional activity, structural system of educational and professional activity.

The last mentioned part is expected to be acquired by future technological education teachers:

- a) special analytical skills give an opportunity to evaluate and perceive the pedagogical situation as a multi-part renewing pedagogical reality;
- b) specific professional-diagnostic activities, studying the structure of the academic subject (mathematics, natural sciences, etc.) . The acquisition of this type of activity by future technological education teachers will lead to the development of technological education in the future;

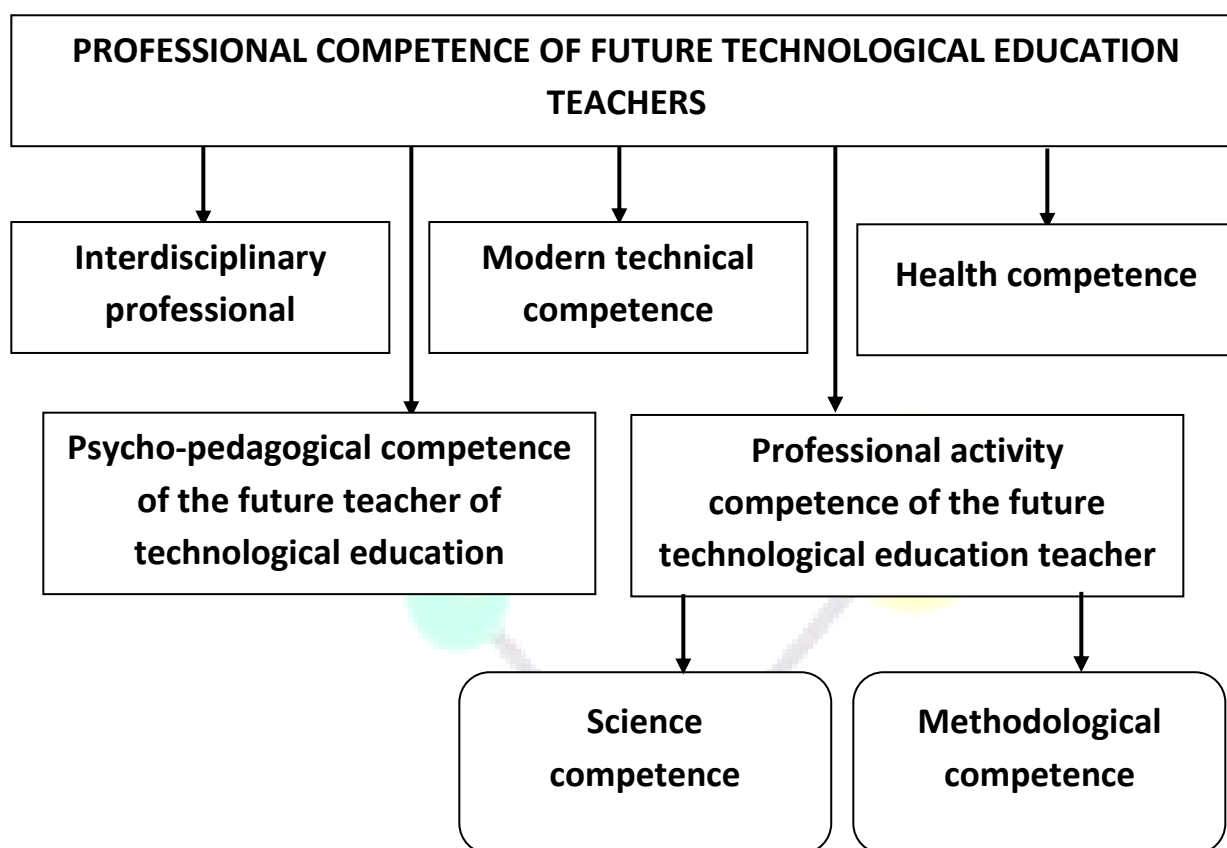
v) the basis of the design movement, the goal of such a movement is to create a perfectly comprehensive system, in which the main goal is to organize the activities of schoolchildren, in the words of T.M. Sorokina, it creates a pedagogical environment. This system covers the unique development of school-aged children during their interaction: with the teacher (in the educational structure and beyond), with peers (in the course of education), with parents.

In the system of the pedagogical environment, scientific forecasting helps future technological education teachers to acquire modeling methods, which in turn, through these methods, leads to the development of school-age children during their studies and forms their mental well-being (in the didactic system).

This approach of T.M.Sarokina determined the basis of the structure of the future pedagogue's professional competence through research with its own characteristics, that is, based on the effectiveness of professional activity. In this way, it is possible to perfect and develop the professional competence of the pedagogue, to realize the continuity of professional formation in one general line [7].

Formation of these competencies can be done by studying four areas: general humanitarian and socio-economic areas, general mathematical and natural sciences areas, general professional areas and retraining areas. We have modernized this way of categorization based on what the fields are studying in general. Thus, we got the following structure of professional competence of future technological education teachers.

**Table 2**



A more modernized appearance of the formation of professional competence of the future teacher of technological education in accordance with the requirements of the qualification.

During our research, we identified a solution to the problem of the formation of professional competence of future teachers of technological education, the main part of which was found to be related to the field of Education.

At the same time, the mechanisms of professional competence of the future teachers of technological education, which we have aimed at, have been achieved, in accordance with the requirements of qualifications, of course, as well as the goal set before us.

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