

METHODOLOGICAL CONDITIONS OF FORMATION OF PROFESSIONAL AND TECHNOLOGICAL COMPETENCES IN THE TRAINING OF FUTURE TECHNOLOGY TEACHERS

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Abstract. *In this article, the problem of creating competence, ways of forming professional technology competence in future technology teachers and methodical conditions is highlighted.*

Keywords: *competence, pedagogical activity, technological competence, professional competence, creativity.*

In pedagogical literature, the terms competence and competency are often used and already have their place. The widespread use of these concepts is especially related to the need to modernize (update) the content of education.

The concept of "competence" entered the field of education as a result of psychological research. Therefore, competence is how a specialist behaves in unconventional situations, unexpected situations, engages in communication, takes a new way in relations with opponents, performs ambiguous tasks, uses information full of conflicts, consistently develops and is complex. means having a plan of action in the processes. Competence is the acquisition of knowledge, skills and abilities necessary for professional activity by a specialist and their practical application at a high level. Competence in pedagogy is understood as the ability of a teacher to acquire knowledge, skills and abilities necessary for the implementation of professional and pedagogical activities, as well as the ability to use them in practical activities based on an innovative approach.

"Competency is not the future specialist's response to certain evaluation criteria, but the ability to use and prove it in development." The professional competence of a teacher means a set of personal qualities and values that determine the manifestation of his knowledge, skills, abilities, views, qualifications and teaching abilities.

Technological competence is professional-pedagogical knowledge, skills, assimilation of advanced technologies that enrich skills, ability to use modern information media, techniques and technologies. The concept of "technological competence" can be evaluated from different points of view, both as a component of professional competence and as a component of a person's information culture. Important signs include knowledge of the basics of information technologies, the use of a computer as a necessary technical tool, the sum of knowledge, skills and abilities related to information search, analysis and use.

"Competence-based education (CBE) is formed in the general sense of the term "competency" proposed by the American linguist N. Chomsky (University of Massachusetts, 1965). At the symposium held in Bern (1996) under the program of the Council of Europe, it was noted that the concept of "competence" is included among such concepts as "learning", "competence", "ability", "skill" [].

The teacher's use of information technologies in the process of activity facilitates teaching and learning, provides comfort in education for the educator, helps to increase the interest of students in learning, intellectual abilities. From the specific features of information technologies, it is known that the use of information technologies in improving the technological competence and skills of the pedagogue will positively change not only the effectiveness of education, but also the result of the educator's work. The skill is to organize all forms of the educational process in the most convenient and effective way, to direct them towards the goals of personal development, to form worldviews and abilities in children, to awaken in them a tendency to activities necessary for society. Pedagogical skill of a pedagogue who is an active participant in the educational process is evidenced by his personality, work experience, civil status, position as a specialist, sufficient mastery of pedagogical techniques, individuality of professional activity. It is necessary to pay special attention to the introduction of new pedagogical technologies at all stages of education, especially to the effective and rational use of information and communication technologies and the achievement of high efficiency. To train competitive, qualified personnel in line with world requirements, to train the next generation with high spirituality, to respond correctly to the changes taking place in social life, to educate well-rounded individuals who deeply understand the essence of our national values. the incoming teacher should show examples of creativity, curiosity, and self-sacrifice. Also, the teacher should have skill and art, he should be able to attract the students, make the lesson interesting and give the student knowledge and education.

Mastering the topics in the program depends on knowing the capabilities and functions of the teaching tools necessary for this topic and using them correctly. For this, it is necessary for the teacher to have a culture of competence approach.

Competence means not only the presence and significant amount of acquired knowledge and experience, but also the ability to use them at the right time and use them in the process of performing one's official duties.

In this sense, competence is a description of a person, a person, a professional, at the same time, it is a sum of personal capabilities of a person, his ability to effectively use his professional knowledge and experience in his practical activities. Competence as a description of the specialist's ability to perform effective professional activity has become the basis of the competence approach in education. Emphasizing the complex, integral nature of such competence, its three levels are distinguished in management models abroad:

Integrative competence is the ability to collect knowledge and skills and be able to use them in the rapidly changing conditions of the external environment. Sociopsychological competence - intelligence, knowledge and skills to understand people's behavior, motivation of their work, high level of accessibility and communication culture.

Competence in certain areas of management activity - decision-making, information gathering, methods of working with people, etc.

Psychologically, competence is defined as a criterion for understanding the surrounding world and the proportionality of interaction with it, or more precisely, it is a set of knowledge, skills and abilities that allow the successful implementation of activities, or a person's ability to interact with the environment and himself. is that he has mastered the methods of influencing himself. From the point of view of new socio-educational ideas, this concept is developing further. The first of the stages of competence development is related to the expansion of the range of its

components by including additional areas of competence important for the subject's professional activity.

Components of competence develop and manifest only in the process of performing activities that are interesting for a person. Effective performance resulting from several factors is much more dependent on a number of independent and interchangeable competencies that cover a wide range of situations in the course of action aimed at achieving a goal, than on the level of competence or ability that is taken separately, manifested in a specific situation. will depend. In the assessment of competence, it is necessary to consider not a single level of competence, but a complete set of competences manifested in various situations during the long time spent by a person to achieve personally important goals. In this case, the specific situation faced by a person has a direct impact on his development, the formation of values and the acquisition of new competencies.

Realizing the diversity of the field of competencies that are important to acquire in order to be effective in one's professional activity has created the problem of determining the scope of these competencies, as well as distinguishing among them the most universal basic competencies. Today, there are various classifications of basic competencies related to science in preparation for professional activities abroad. M. Stobart defined the following five groups of basic competencies: Political and social competences (for example, taking responsibility, participating in joint decision-making, resolving conflicts through compromise, participating in the activities of democratic institutions);

Competencies related to the life of a multicultural society (for example, correct understanding of differences, respect for each other, living in harmony with people of other cultures, languages and religious beliefs);

Oral and written communication skills (e.g. multilingualism); Competencies associated with the emergence of the information society (for example, mastering new technologies, being able to use them, being able to have a critical attitude towards information and advertisements distributed through mass media channels);

Competence to learn professionally and personally throughout life as a basis for lifelong learning. [1]

The last competence is of particular importance, so some researchers call it systemic competence. E.P. Tonkonogaya and V. Yu. When considering personal qualities of professional importance, the Krichevskys put competence on a par with ethics, pedagogical organization, management, communication and other qualities. Competence itself means that the pedagogue has the breadth and culture of the general worldview, the presence of professional knowledge in pedagogy, psychology, management theory and the scientific foundations of educational management, the ability to develop their knowledge in practice, knowledge of social and psychological-pedagogical research methods, pedagogical and management implies having the necessary set of skills. In other words, competence is determined by the availability of professional knowledge and skills, as well as the ability to apply and improve them in practical activities. In the work of pedagogues, various aspects and components that allow for a wider and more detailed study of competence from a pedagogical point of view have been isolated and studied.

S.E. The following definitions of competence are given by Shishov:

general competence based on knowledge, experience, values and inclinations acquired through study;

the ability to establish a connection between knowledge and situations, to find a suitable solution to a problem (to say that competence is permissible only if it is demonstrated in a situation, unexpressed competence is not competence, but hidden opportunities is also a big deal). L.M. Dolgova, P.V. According to Simonov and others, competence means being able to act based on acquired knowledge. In contrast to "knowledge, skills, and abilities" that imply pattern-like actions, competence refers to the experience of independent action based on universal knowledge. "Competence is the presence of knowledge and skills in the form of social practice, which is manifested in cases where socio-cultural requirements and demands of society are imposed on the results of the educational process," L.M. says. Dolgova. [3]

V.V. According to Bashev, competences are the individual abilities of a person, which are manifested in the ability to transfer this ability to other conditions when the conditions change. Fields of application determine their specificity and accuracy (mathematical, linguistic, political and other competencies). A person who works effectively in the field of social studies should be able to:

- 1) to be able to analyze the situation in which he finds himself;
- 2) being able to communicate with other people;
- 3) ability to make decisions;
- 4) able to organize individual and collective actions for the implementation of the adopted decisions;
- 5) ability to acquire new methods of activity.

Thus, competence can be interpreted as ability, readiness, ability, and at the same time, the result of certain actions. In other words, competence is a category of activity, which is manifested in the course of the subject's professional, social and other activities aimed at fulfilling the assigned tasks. If we define it in the most generalized way, competence is certain skills of an individual in terms of interaction with surrounding objects and subjects, necessary for successful activity in society in general and in the professional field in particular. and it means a certain level of formation of professional experiences. N.G. According to Vitkovskaya, competence is the ability to mobilize internal (knowledge, skills and abilities, spiritual qualities, psychological characteristics) and external (material, technical, social) capabilities of a person aimed at solving the problems.

From a psychological point of view, A.K. According to Markova, competence is a characteristic of a certain person, that is, an individual characteristic of a person according to the level of suitability for professional requirements.

In his research, N.A. Muslimov found the basis of the teacher's professional competence to be formed by six qualities, that is, motivational qualities (covering the needs, motives and goals for the chosen profession that are formed and developed throughout a person's life), intellectual potential (all official on the basis of documents, the teacher strives to transfer information and data, to form knowledge, skills and competencies), voluntary qualities (aspiration to the goal, overcoming internal and external obstacles, physical and mental stress, self-control and initiative qualities), practical skills (psychological, pedagogical, methodical and technical-technological abilities, actions, skills of an individual in various spheres of activity and communication), emotional qualities (formation of the necessary skills to manage one's emotions, one's own specific manage their emotions (anger, anger, restlessness, resentment, envy, sympathy, shame, pride, fear, happiness, love, etc.) and understand their emotional states and their causes) and self-control

(freedom in choosing goals and means of achieving them, conscientiousness, critical approach to one's activities, comprehensiveness and understanding of actions, comparing one's behavior with that of others, confidence in the future, one's physical and he emphasizes that he can maintain and manage his psychological state at the required level. The existence of competence is evaluated based on the results of human labor. The level of competence of each specialist is determined depending on the extent to which his work meets the requirements for the final result of this professional activity.

It is correct to assess competence not by the amount of actions performed by a person during work, but by the result of the activity. Likewise, competence cannot be determined by the level of literacy.

M.P. According to Choshanov, competence is a completely new quality of professional training, and its specific aspects include:

the knowledge of a competent person is practical, fast and mobile, they constantly update this knowledge;

competence has content (knowledge) and process (skills) components. It is not enough to understand the content of the problem, it is necessary to be able to solve it with practically acceptable methods, that is, flexibility of methods is a necessary characteristic of competence;

competence requires the ability to choose optimal solutions, to justify the decision, to exclude wrong ways, i.e. to be able to think critically.

A.K. Markova believes that the competence of a particular person is narrower in relation to his professional skills, that is: "A person can be a master of his profession in general, but he may not be competent in solving all professional issues."

Competence does not refer to the sum of individual knowledge and skills or individual activities, but rather to the characteristic that a person needs to fully perform work.

In addition to professional competence, social communication and self-management competencies are also distinguished. T. Yu. Bazarova divides the competence of the teacher into three types: methodical, professional and social. According to him, the success of a teacher depends on all three types of competence.

A.K. Markova divides professional competence into the following types:

special competence - mastering professional activity at a high level, being able to plan one's professional growth;

social competence - joint (group, cooperative) professional activity, cooperation, as well as thorough mastering of professional communication methods related to this profession, social responsibility for the results of one's professional activity;

personal competence - mastery of personal worldviews and ways of self-development, ability to resist professional derailment;

individual competence - the ability to express oneself within the scope of one's profession and develop one's individuality, the readiness to grow professionally, the ability to preserve one's individuality, not to be left behind professionally, to organize one's work rationally knowledge, the ability to perform work without stress.

All of the above-mentioned competencies may not be embodied in one person. A person may be a good specialist in his field, but he may not be able to communicate, he may not be able to perform tasks for self-improvement. Accordingly, it can be recognized that his special competence is at a high level, and his social and personal competence is at a lower level. [3]

Based on this, it is worth noting that there are professional competencies that serve as the basis for many professions and do not lose their importance when used both in production and in social practice. Each type of professional competence listed above includes such common interprofessional components. For example, special competence - planning of production processes, skills of working with equipment, ability to read technical documents, skills of performing manual work; personal competence - planning, controlling and managing one's own activities, making decisions independently, finding non-standard solutions (creativity), quickly adapting theoretical and practical thinking, being able to see a problem, acquiring new knowledge and skills independently ability to receive; individual competence requires having motivation, reserves of success, striving to improve the quality of work, self-mobilization, self-confidence and optimism.

A.K. According to Markova, it is appropriate to emphasize another type of competence - "extreme professional competence", which implies a person's readiness to work in suddenly complicated situations. People with such psychological qualities are more ready than others to change their profession and re-study, unemployment is less of a threat to them.

E.F. According to Zeer, professional competence is a set of professional knowledge, skills, as well as methods of performing professional activities, which consist of the following components:

socio-legal competence - knowledge and skills in the field of social institutions and human interactions, as well as professional communication methods and rules of conduct;

special competence - readiness to independently carry out certain types of activities, ability to solve common professional issues and evaluate the results of one's work, ability to independently acquire new knowledge and skills in one's specialty;

personal competence - the ability to constantly improve professional skills and qualifications, to show oneself in professional activities;

self-competence - having a true vision of one's socio-professional capabilities, being able to overcome professional difficulties. [1]

According to the scientist, professional competence is one of the professional aspects of a specialist's personality, along with the following aspects:

a person's professional goal-orientation: striving for success and achievements, carrying out joint activities with the team and burning his soul for the interests of the team, reliability, worthiness of his profession, etc.;

professionally important qualities: conscientiousness, the ability to analyze one's own mental state, independence, responsibility, intellectual maturity, the ability to assess and predict, communication, professional mobilization, the ability to solve problems, etc.;

occupationally important psychophysiological qualities: ability to work, ability to skillfully perform manual work, psychomotor skills, eye contact skills, etc.

All approaches to determining competence have in common that competence is formed and manifested in the process of practical activity. It is no coincidence that most of the classifications of "basic competencies" are associated with various types of human activity: social competencies, informational competencies, communicative competencies, etc.

Based on the above, in the organization of the educational process, the learner should not prepare for his future professional activity by forming a set of skills necessary for professional activity, but should imbibe the competencies here and now. Therefore, as a result of competence education, the following should be ensured:

- the existence of internal motivation to study as a source of self-motivation;
- the ability to organize oneself in the course of educational activities as a condition for mastering integrated activities;
- the ability to differentiate oneself (determine one's own level), which allows each person to determine the level of mastering one or another educational material;
- achievement of personally significant results by the learner;
- the existence of effective activities interconnected between all subjects of the educational process.

At the same time, the methods and technologies of competence-oriented education should ensure the easy transfer and flexibility of abilities formed in certain conditions to other conditions, that is, they should create the characteristic of "non-adaptive activity".

According to international experience, there is a special need to improve the professional and methodical and technological competence of pedagogues, including the development of the most optimal methods and effective models of the educational process, the organization and implementation of an innovative educational environment. Based on this need, it is necessary to introduce development technologies based on an innovative approach, develop teaching methods and didactic tools for subjects aimed at the formation of professional competence.

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