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THE SOCIO-PEDAGOGICAL NECESSITY OF SELF-DEVELOPMENT OF FUTURE TEACHERS

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Annotation. This article provides a consistent scientific analysis of important issues related to the pedagogical aspects of self-development of future teachers, including their professional competence, socio-spiritual activity, intellectual capacity, moral qualities, aesthetic, psychological, and physical preparedness, as well as their comprehensive and well-rounded development.

Keywords: thinking, dialectical relations, intelligence, morality, intellect, teacher, self-development, creative potential, motivation, pedagogical design.

Introduction. At the global level, innovative models of self-development of future teachers are being implemented in educational centers. In today's global processes, the field of education is also undergoing reforms in its own way. This, in turn, is closely connected with the achievements of information and communication technologies within the education system. The development of the education system in the present era is inextricably linked with the advancement of modern technologies. Such development makes a significant contribution to providing educational processes with didactic resources.

Literature Review. The theoretical and philosophical views presented in the scientific works of scholars such as Korotaeva, B.S. Abdullaeva, A.R. Aripdjanova, R. Ishmuhamedov, and A. Abduqodirov, as well as other sources listed in the references, were identified as the methodological basis for this study.

Research Methodology. In the process of analyzing this article, methods of scientific inquiry such as objectivity, historicity, and generalization were employed. In addition, important issues related to the pedagogical aspects of self-development of future teachers, their professional competence, socio-spiritual activity, intellectual capacity, moral qualities, aesthetic, psychological, and physical preparedness, as well as their comprehensive development, were analyzed based on a systematic approach.

Analysis and Results. Today, the fields of science and education in the world are developing in connection with modern pedagogical approaches. Information and communication technologies are becoming increasingly important in ensuring quality education. This, in turn, expands knowledge and enables rapid access to new information. It opens wide opportunities for developing the analytical thinking of future teachers. Moreover, enhancing the creative abilities of future teachers significantly contributes to increasing the effectiveness of intellectual activity. Modern pedagogy places particular emphasis on the development of critical thinking and creative abilities. Scientific research is being conducted to facilitate the

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exchange of information among individuals, to study and improve the specific features of modern pedagogical and communication technologies, and to develop knowledge and skills.

At present, one of the most important issues in the educational process is the self-development of future teachers. In this regard, the philosophical, pedagogical, and gnoseological aspects of developing analytical thinking have been studied in the scientific works of B.S. Abdullaeva, N.M. Kenjaboeva, Z.T. Rakhimov, N.A. Muslimov, N.X. Avliyakulov, J.G. Yuldoshev, and G.N. Ibragimova.

Future teachers represent one of the most socially active groups within society. Their engagement in science and research places them in a significant position within the intellectual life of society. This, in turn, requires a high level of moral and professional responsibility from them. As members of the intellectual stratum of society, future teachers are subject to a number of demands, which are closely related to their cognitive activity, comprehension, and analytical thinking in the educational process.

Concepts such as “knowledge” and “cognitive activity,” along with their pedagogical and psychological characteristics, were addressed by medieval thinkers such as Farabi, Beruni, Ibn Sina, Ulugbek, and Alisher Navoi. They emphasized that human beings are capable of understanding nature and society; that cognition begins with sensation and perception and develops into thinking; and that the human intellect is active and serves as the primary tool of knowledge. According to English philosophers of the 17th–18th centuries, human knowledge begins with sensations, experience is the source of knowledge, and information obtained through the senses is processed through cognitive activity.

Knowledge, as a general concept of human activity, characterizes individual traits as part of society. According to scholar L.V. Zharova [1], cognitive activity consists of thinking, patterns of behavior, and their explicit and implicit manifestations. It should also be noted that any cognitive activity is based on values formed through traditions. Cognitive systems, on the one hand, can be considered as the result of performed activities, and on the other hand, as one of the foundations for future actions. Consequently, the perceived image of such systems is the process of cognitive activity itself (E.V. Korotaeva [2]).

Cognitive (gnoseological) activity is one of the philosophical problems. This philosophical direction is extremely important for the formation of an individual as a personality (see Figure 1.1: Cognitive Activity).

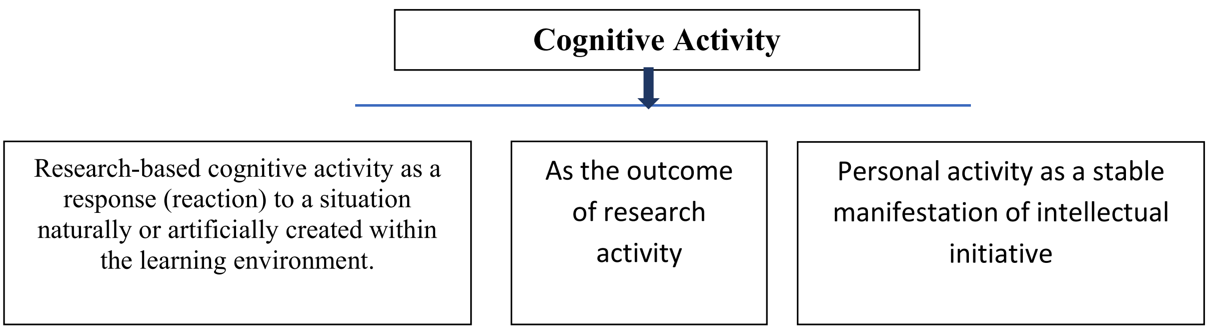

Figure 1.1. Cognitive Activity

In our republic, J. Tulenov and N. G‘ofurov describe cognitive activity as a form of human general activity and recognize its biological characteristics. They emphasize that cognitive activity is highly important in the processes of understanding. In philosophy, cognitive activity is considered as the process of acquiring information about the external world, using it, and developing skills based on it. It is stated that this forms the intellectual world of a person.

In her scientific views, A.V. Sadikova notes that the stability of voluntary actions is manifested in future teachers' persistence in completing tasks and in seeking effective solutions when facing difficulties. In his research, B.S. Abdullaeva [3] emphasizes that future teachers demonstrate high volitional qualities, perseverance in achieving goals, and broad and strong educational-cognitive interests. She states that this level of activity is ensured through the formation of high-level thinking.

Thus, cognitive activity involves mastering theoretical and practical knowledge and understanding surrounding reality. The theory of cognition is a branch of philosophy called **epistemology**, which studies the laws of cognition, its relation to objective reality, and cognitive potential. Epistemological activity investigates various forms and stages of the cognitive process, as well as the criteria and conditions for the objectivity and reliability of knowledge. Therefore, activity is considered a form of a person's conscious and goal-oriented interaction with reality, expressed through a set of purposeful actions. The word *analysis* originates from Arabic and means spreading, examining, investigating, solving, and uncovering. To analyze means to carry out analytical work in all these senses.

The word *thought* (idea) also has Arabic origin and means thinking, idea, mind, reflection, imagination, and consideration. To think means to compare objects or phenomena comprehensively in order to reach a conclusion and to reflect upon them.

In this chapter, the pedagogical aspects of future teachers' cognitive processes in acquiring knowledge, actively participating in understanding the systems of the world, society, and humanity, and analyzing social and global phenomena are thoroughly examined. In particular, the dialectical interrelation of forms of thinking, as well as the connection between intellectuality, creativity, and critical thinking in analytical thinking, is extensively discussed.

Thinking is one of the highest forms of human activity. Independent thinking is considered a tool for understanding the social environment, surroundings, and reality. The content of independent thinking in future teachers' educational-cognitive activities depends on several factors. These include understanding their goals and tasks, applying them in theoretical and practical activities, reflecting events and expected outcomes, and independently solving problems through intellectual search using various effective methods and tools. Any innovation, creativity, and development are the greatest products of human intellectual capacity. Therefore, scientific and technological progress largely depends on the independent thinking of future specialists.

The development of human thinking, analytical skills, and correct conclusion-making improves through the effective use of the philosophical possibilities of a discursive approach. In modern linguistics, one of the main issues of pragmatic and cognitive linguistics is discourse.

The term *discourse* comes from the Latin *"discursus"* meaning discussion. Unlike sensory or intuitive knowledge, discourse refers to logically reasoned and evidence-based knowledge obtained through discussion. As a linguistic term, discourse entered linguistics in the mid-20th century. Discourse is considered an interdisciplinary research object. Social and humanitarian sciences, especially philosophy and pedagogy, approach discourse in their own ways.

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Discourse is defined as a sequence of interconnected speech acts and a communicative phenomenon that occurs between speaker and listener during communication in a specific time and context. In assessing the communicative competence of future teachers, innovative approaches are related to the use of discourse analysis.

Activities related to obtaining information about the key characteristics of a person's spiritual world are considered products of creative thinking. The cognitive process consists of complex stages. It requires conscious attitude, intellectual seriousness, stable conditions, and appropriate circumstances. Through these influences, an individual makes a certain decision. The analytical thinking activity of students has a philosophical and social nature. Looking at the history of philosophical thought, it can be observed that labor activity among people has greatly contributed to the development of thinking.

Through thinking, future generations are able to inherit spiritual legacy about the world. Throughout history, humanity has achieved significant success in all fields based on accumulated experience, knowledge, and skills. Nowadays, the development of students' analytical thinking abilities leads to the development of independent critical thinking.

The development of independent critical thinking is primarily connected with understanding philosophical characteristics and effectively applying them in practical activities. In future teachers, independent thinking begins with the emergence of problematic situations. However, the emergence and solution of a problem do not end the process. In relation to epistemological activity, involuntary behavior and motivation are not clearly visible before the problem situation arises; they appear implicitly. After that, a problem situation requiring a solution is formed. Even after finding a solution, the cognitive process continues involuntarily in its own direction.

Abu Nasr Al-Farabi's Views on Independent and Analytical thinking the great philosopher **Abu Nasr Al-Farabi (873–950)** sought to identify the specific features of independent and analytical thinking in education through the use of intellect. In his works, Al-Farabi explained the ontological nature, universality, and methodological foundation of thinking, and described its epistemological character through sensory cognition.

According to Al-Farabi's philosophical doctrine, through thinking, a person comprehends the essence and meaning of matter, existing laws, and specific systems. In the philosopher's view, thinking is one of the most important foundations of intellectual power. Logic, as a science, performs creative independent thinking practices.Through logical thinking, the above-mentioned tasks are accomplished. When the need to understand an object arises in cognitive activity, the "quvvat natifiya" (natural power) activates the "quvvat fikriyya" (thinking power). This process is carried out through concepts, judgments, and conclusions, and is completed by forming general conclusions. His ideas regarding the processes of universalization, abstraction, analysis, and synthesis in thinking are of great importance.

In his teachings, Al-Farabi also described the movement of thinking from concreteness to abstraction and from abstraction back to concreteness. In his work *"On the Intellect"*, he states that a person who combines twelve virtues becomes morally perfect. In the fifth virtue, he emphasizes that a person's speech must be clear and that they should express their thoughts fluently. These ideas demonstrate that independent thinking is an essential quality of analytical thought.

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Today, these invaluable ideas have not lost their significance. They show that the philosopher made a great contribution to explaining the characteristics of independent and analytical thinking. In the period of independence, these ideas serve as a theoretical foundation for developing independent thinking among students.Through thinking, a person reflects processes directly and indirectly, generalizes phenomena, and understands the necessary interconnections, properties, and relationships between objects and events. Based on certain laws and principles, a person is able to predict the emergence, development, and outcome of social processes.Thinking is the object of study in various sciences. Psychology also studies thinking as a mental process. In psychological science, several types of thinking are distinguished. In social life, production, and education, relationships between individuals are formed through thinking. In collective environments, characteristics such as critical worldview, evaluation, verification, self-criticism, self-control, and group discussion develop. The perception of one person by another is also closely connected with thinking processes.

Discoveries, creative works, inventions, and proposals are products of thinking. Psychology investigates the epistemological aspects of thinking and attempts to provide scientific justification for them. In today's complex conditions, the need to study thinking is extremely high.

Conclusion and Recommendations

In conclusion, future teachers should rely on their practical experience in developing their thinking, continuously improve their knowledge and skills, and pay special attention to acquiring universal knowledge. This will play an important role in their future professional development and may serve as a guiding principle in their lives.

References

1. Zharova, L.V. *Teaching Independence*. Moscow: Prosveshchenie, 1993.
2. Korotaeva, E.V. "Levels of Cognitive Activity." *Narodnoye Obrazovanie*, 1995, No. 10, pp. 156–159.
3. Abdullaeva, B.S. "Formation of Students' Information Competence." *Eastern European Scientific Journal*, 2018, pp. 183–187.
4. Aripjanova, A.R. *Development of Creative Potential of University Teachers in the Context of Educational Informatization*. PhD Dissertation Abstract. Tashkent, 2017.
5. Ishmukhamedov, R., Abduqodirov, A., Pardayev, A. *Innovative Technologies in Education*. Tashkent: Iste'dod, 2008.