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# PEDAGOGICAL PROBLEMS IN DEVELOPING STUDENTS' LEARNING ACTIVITIES AND THEIR EXPLANATION

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#### **Abstract**

This article briefly describes the differences between academic and cognitive activities, problems that arise in the development of students' cognitive activities, measures to eliminate them, and the work of scientists on these problems.

**Keywords**: Educational process, innovative technology, problem situation, independent thinking, creative thinking.

#### Introduction

When it comes to the progress of our country, our President Shavkat Mirziyoyev always emphasizes that the cornerstone of development, the force that makes a country powerful and a nation great, is science, education and upbringing. The effectiveness of today's modernization processes, reforms and changes is aimed at school education, providing the growing younger generation with high-quality and new knowledge. Implementing these reforms requires teachers to use new teaching methods and focus on each child's interests, based on their desires.

Educational activity and cognitive activity, as two sides of a whole, are disparate phenomena that come from the same point, complement each other, and at the same time require each other - they do not deny each other. If the psychological basis of educational activity is memory phenomena, then the psychological basis of cognitive activity is thinking phenomena. In the objective course of education, educational activity passes into cognitive activity, and cognitive activity passes into educational activity. Both educational activity and cognitive activity relate to one social institution - the assimilation of social experience. Both of these types of activity have a goal, motive, means, and result. If educational activity is aimed at knowledge, skills, and qualifications, then cognitive activity is aimed at the



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formation of creative activity experience and relationships along with knowledge, skills, and qualifications. In educational activity, assimilation is carried out in a reproductive nature, and in cognitive activity in a productive nature.

The main goal of the problems used in educational settings is to educate a well-developed person in all respects. Student independence in cognitive activity is at the highest level. Based on this, we consider the problem of forming independent thinking, problem-solving, and analytical approach skills in students as the first pedagogical problem in the development of students' cognitive activity.

In the realization of independent thinking, the student develops thoughts, reasoning, ideas, hypotheses, goals, etc., and they are expressed in the person's mind as concepts, judgments, and conclusions. Independent thinking is closely related to language and speech, and they constantly require each other. For this reason, the student is fundamentally different from other beings in existence due to his independent thinking, speech, and conscious behavior.

Independent thinking in a student begins with the emergence of a problem situation, but the emergence and solution of this situation do not end there. The student's tendency to know, involuntary behavior does not become clear until a problem situation arises, it arises in an ambiguous form, then in this sense a problem situation is created that needs a solution, and finally its solution is found, but the stage of knowledge after the problem continues involuntarily in the direction of thought.

The great scholar Abu Nasr al-Farabi (873-950) tried to identify the characteristics of independent research and thinking in acquiring knowledge through reason, through contemplation. In his works, it is explained that contemplation has the property of existence, generality, and immediacy, that is, knowledge through the senses. According to al-Farabi's teachings, through contemplation (reason), a person knows the aspects of matter that are unknown to the senses, its general laws, and its essence, acquires knowledge in the system of arts and sciences, and is able to think independently.

In his opinion, one of the most important functions of the mind is to perform logical independent thought operations. This function is performed by the process of logical thinking of a person, an independent "mental power" that is part of the mind, that is, if there is a need to know something that can be understood with the "mental power" (the result of power), the "mental power" (power thought) comes into play. This activity is carried out with the help of reasoning,



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understanding and judgments, and then ends with drawing conclusions. His ideas about the characteristics of thinking, such as generalization and conceptualization, analysis and synthesis, are of great importance. In the teachings of the scholar, there are also hypothetical ideas about the direction of thinking from concreteness to conceptuality and its return from conceptuality to concreteness. Al-Farabi says in his treatise "On the Mind" that only a person who combines 12 qualities in himself will be a moral person. "The fifth of them is to be clear in his words, to be able to express his thoughts and opinions fluently." It is these thoughts that show that our great ancestor emphasized that the independent thinking of a person is his important quality.

Thus, Al-Farabi's ideas about independent thinking and the characteristics of thinking have retained their relevance to the present day, serving as a theoretical basis for the development of independent thinking in young people in the current era of independence.

The power of human thinking lies in the fact that it compares events that have occurred, distinguishes truth from falsehood. The famous Russian educator, scientist, founder of Russian pedagogy and folk schools, Konstantin Dmitrievich Ushinsky, once said that "such a path of education, that is, the path of transition from concrete to abstract, from imagination to thought, is based on such clear laws of nature and psychology."

Today, only if we develop students and young people in the educational spirit of our ancestors, if we establish the correct formation of the mechanism of independent thinking, free movement and an active process for an independent life will emerge in the students.

As the next pedagogical problem in the development of students' cognitive activity, we will consider the problem of forming students' creative thinking skills, interaction in the educational process, and critical thinking skills.

In the 21st century, the education system plays a crucial role in the formation of human capital. Digital technologies, dramatic changes in the social environment and the labor market require new approaches to education. That is why the 4K model - critical thinking, creativity, collaboration and communication - is being promoted as central competencies in the modern educational process. Below we will dwell separately on each 4K section: critical thinking, creativity, communication, collaboration.



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Critical thinking is a methodology that involves developing students' skills in critically evaluating information and forming their own opinions and judgments. Students learn to approach problems from an analytical perspective and form their own point of view based on logical reasoning. The ability to think critically is an additional advantage that characterizes the human mind and leads to the most important development at the individual and global levels. Stephen Brookfield's 2012 book "Teaching Critical Thinking" draws on his experience of the last three decades of conducting critical thinking seminars and courses to study how students learn to think critically and what teachers can do to help them develop this ability. In the work, the scientist substantiates knowledge about the tradition of critical theory, the tradition of American pragmatism, and the power of critical theory.[2]

Creative thinking - develops the ability to think creatively and create innovations. Students learn to use new approaches to achieve their goals, develop innovative solutions, and acquire creative problem-solving skills. Fascinated by the connection between education and art, the Italian ecliptic artist Bruno Munari recognized creativity as a key tool for solving life's problems and conducted indepth research on the creative skills that play an important role in the human mind.

Communication - develops students' ability to communicate with each other in the classroom. They learn to express their thoughts clearly and clearly, listen and understand the interlocutor, and effectively use language tools to convey information. Owen Hargie and David Dixon's "Competent Interpersonal Communication" provides a basic reference for studying interpersonal communication in fourteen areas, in particular: nonverbal communication, questioning, reasoning, listening, explaining, self-disclosure, establishing induction, assertiveness, influencing, negotiating, interacting in group discussions, and leadership.

Collaboration is about teamwork, sharing responsibility, sharing ideas, and working together toward a common goal. In today's work environment, team members must actively collaborate on interrelated projects. Teaching collaboration involves group work, specific assignments for working in groups, role-based tasks, and project-based learning.

If we analyze international experience, countries with advanced education systems such as the USA, Finland, South Korea, and Singapore are successfully



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implementing the 4K model in practice. For example, in Finland, great attention is paid to project and group work based on interdisciplinary integration. In the USA, K4 competencies are included in the core curriculum of every school based on the "21st Century Skills" program. [6] In the Singaporean education system, students develop communicative and creative skills through discussions, creative approaches, and group assignments in every lesson. These experiences are considered to be an important direction for education in Uzbekistan.

As the third pedagogical problem in the development of students' cognitive activity, we analyze the problem of establishing mechanisms for interdisciplinary integration and full use of technological tools (ICT and interactive methods) in the educational process.

The fact that integrative-cognitive tasks are based on interdisciplinary connections and are organized taking into account the current situation in pedagogical, psychological and intellectual terms helps future teachers find solutions to a number of problems related to professional competence. Organization based on an integrative approach in education helps to understand the world as a whole, forms the idea that processes and knowledge are interconnected. In implementing an integrative approach in lessons, teacher cooperation and effective use of information are important, because today's era of developing information technologies requires everyone, especially teachers, to be aware of the latest news.

In her research, V.N. Fedorova demonstrates the didactic possibilities of interdisciplinary integration to increase the effectiveness of the educational process, emphasizing that interdisciplinary connections are manifested as a didactic condition for the interconnectedness and coherence of natural sciences and environmental phenomena.

The use of innovative technologies in integrated lessons also increases the effectiveness of education. This serves to organize the educational process in a modern, active, collaborative and developing independent thinking of the student. This approach creates an opportunity to activate students, connect science with life, and deeply assimilate knowledge. Innovative technologies are a set of advanced, updated, highly effective methods and technologies in the educational process.



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Innovative technologies are a set of advanced, updated, highly effective methods and technologies in the educational process. Innovative technologies used in integrative lessons include:

- 1. ICT (information and communication technologies)- interactive whiteboard, tablet, computer, projector Power Point, Google Slides presentations.
- 2. Multimedia tools animations, video lessons, electronic laboratories.
- 3. Interactive game technologies didactic games, roleplay, gamification. Active methods such as "Who is faster?", "Chain question", "Top player".
- 4. Project method interdisciplinary project development (for example, the "Let's protect nature" project natural science + native language + technology).
- 5. Blended learning a combination of face-to-face and online learning in the classroom. For example: interdisciplinary topics are explained in advance via video, followed by practical exercises in the classroom.
- 6. Active methods such as cluster, insert, brainstorming allow you to visually collect, analyze, and generalize ideas.

In conclusion, it is worth noting that a teacher should have extensive knowledge in his field, conduct lessons based on interesting examples, instructive stories, events and conclusions from life experience, take into account the interests of students during the lesson, and try to find answers to any questions generously. Each of the problems we have listed is an area that is relevant and needs to be paid attention to and formed in the education system.

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