

## Technologies for Developing Intellectual and Thinking Motives That Encourage Creativity in Students

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**Abstract:** in this article, all the problems related to the development of creative competence of the future primary school teacher are considered.

**Keywords:** education, upbringing, development, attitude, knowledge, skills, qualifications, creativity, competency, elementary school teacher, ability, emosiya, experience.



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In modern psychology, intellectual thinking is recognized as an important form of creative activity of a person and has three specific characteristics:

The first characteristic is activity aimed at solving various problems and issues;

The second characteristic is activity related to the inner feelings of a person;

The third characteristic is activity that arises on the basis of imagination and concepts about the environment surrounding a person, the basis of which is the thinking process.

The intellectual thinking process occurs from the moment a problem situation is created. Regardless of what this problem situation is, the main thing in it is the contradiction between the needs and possibilities of the subject. As a result, the creative person forms a working hypothesis to find a solution to the problem. In other words, the issue of creativity here is a specific image (model) of thinking in a problem situation.

According to further views on the concept of thinking, psychologists interpret it as divergent and convergent.

The concept of “divergent thinking” was introduced by D. Guilford (Guilford, 1950). He recommends divergent and convergent thinking instead of the classical concepts of thinking: inductive (induction inductio - “to establish” in observation and experience) and deductive (deduction deductio - to inquire, to determine the conclusion).

The theory of divergent thinking (lat. divergere - different directions and options for looking) - implies the use of different options by a person in finding a solution to a problem ( “Brainstorming”, “Focal objects” and other methods).

Convergent thinking (lat. Convergere - the same direction and view) - implies the strategy of using algorithms that are approximately mastered based on the given instructions (instructions) on

the content and sequence of determining the solution to the problem, in accordance with inductive and deductive thinking.

### Philosophical and Psychological Foundations of Creativity

There are two ways to find a solution to the problem posed in any scientific research, and they are the ways of the movement of intellectual thought (imagination), like a transport leaving the starting point - from the individual, to the particular (particularity) and from there to the general, and vice versa, from the general, to the particular (particularity) and from there to the particular.

Comparing these ways of creative activity with each other, the following scheme can be imagined.

Separation	specialty	commonality
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It is this scheme that constitutes the subject of logic in philosophy. The subject of logic does not pay attention to the errors on the way to knowing the truth, the crooked paths to it or the possibility of going the right way, as well as the "mental obstacles" in it and the "bridges" (staircases) that help to cross it, or in other words, it is not interested in various contradictions on the path of scientific knowledge above. Logic recognizes the ultimate result - the existence of truth in its pure form, that is, the intellectual-thinking movement aimed at knowledge.

On a psychological basis, its opposite is true, in which the subject of logic is the crookedness of the path of intellectual-thinking movement leading to the knowledge of the truth and its cause, how obstacles arise on this path and how to overcome them, and how to achieve scientific truth in short and easy ways. In this sense, the second path in the scheme of the general philosophical foundations of the intellectual movement of the person in question (generality, specialness, individuality) can be said to be relevant (suitable) for the development of students' creative abilities in national crafts.

According to the analysis of the relationship between the above-mentioned philosophical and psychological foundations, the subject of psychology is suitable for the development of students' creative abilities in national crafts, its psychological basis can be explained as follows, "First, to know the truth known to many (generality-U), then to know the truth that concerns some and oneself (specificity-M), and finally to reveal the truth that is not yet known to anyone (individuality-A)". In this case, creativity according to this psychological basis can be expressed by the following symbolic formula  $N=\pm Bb\pm Bo\pm Fj$ , where N is the result. It includes a new product, item, development, recommendation, etc.

Bb-management block, which includes the teacher's ability to lead, that is, the level of pedagogical and scientific (effective) formation of the elements of the topic, content, form (in school or out of class, etc.) and duration of creative work.

Bo-managed object, which includes the state of students' activities, the provision of raw materials, the necessary conditions in the school.

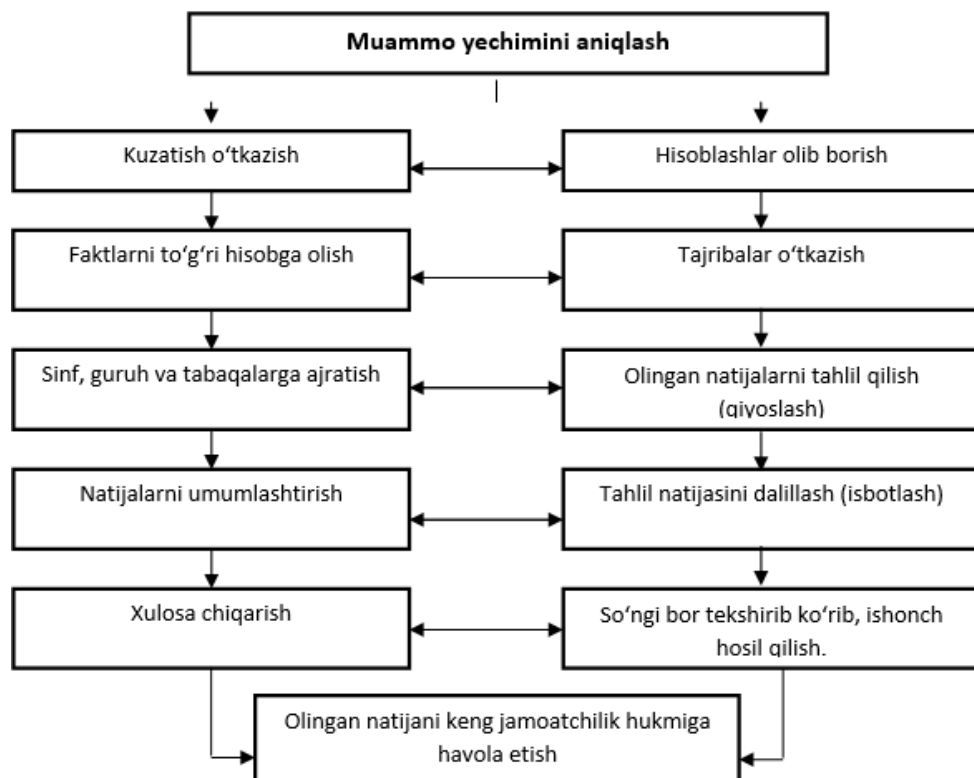
Fj-activity process, which includes the ability of students to correctly determine the goals, tasks, plans of a given topic.

The negative (-) sign in the formula indicates that the creative process also has its own important problematic aspects, that is, it indicates the state of special conditions (related to Bb, Bo, Fj) for the participants in this activity. This includes the presence or absence of a special training course, the level of opportunities for additional activities outside the learning process and the associated fatigue, etc.

The solution to any problem consists of conducting the necessary observations, calculations and experiments, dividing into facts, correctly accounting for facts, dividing into classes, comparing facts, generalizing, proving, drawing conclusions and checking (Figure 1.3.1). Creativity based on this form embodies various contradictions related to the known and unknown, that is, if the

student knows something, then he or she is aroused by the desire and desire to know something else. This contradiction is the essence of the student's intellectual development. Difficulties on this path (which B.M. Kedrov called cognitive-psychological barriers (CBP)) serve as an important factor activating reflective thinking.

In accordance with the categories of generality (U), specificity (M) and specificity (A) of knowledge noted in the psychological foundations of creativity above, the content of students' creativity can be said to consist of a complex of logical, psychological and organizational pedagogical work, from writing simple analytical reflections on a given topic to still unknown special creativity. In this case, their knowledge develops and improves in specific conditions, and within the given and established time fund, in various circles, a creative environment is created, and the effectiveness of ensuring the harmony between creative work and their chosen craft activities increases significantly.



**Figure 2. Sequence of problem solving**

Therefore, one of the important issues in developing students' creativity is the development of a sequence designed for the educational period, ensuring a continuous and progressive psychological cognitive process from simple to complex.

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