



## CRITERIA AND INDICATORS FOR THE DEVELOPMENT OF INDEPENDENT LEVELS OF THINKING IN STUDENTS

Yakubova Barno Bakhtiyorovna  
Andijan Machine Building Institute  
assistant of the "Humanities" department  
byakubova1990@gmail.com,+998770370057  
City of Andijan, Uzbekistan  
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**Abstract.** This article is designed to systematize diagnostic methodologies for the development of independent thinking in students, develop study and practical recommendations, reveal the results of correlational correlations between components of independent thinking and types of intelligence in students, identify indicators of motivation for independent thinking in students, develop student independent thinking.

**Keywords:** practical lessons, free thinking, activity, independent learn, share ideas.

It is known that the scientifically correct research of the psychological aspects of the formation of the features of creativity in them in content, logical thinking in the formation of knowledge, skills and qualifications in students makes it possible to develop students and their intellect, creative potential, the scope of scientific and practical activities necessary for mobilization of educational activities.

When determining the development criteria and indicators of independent thinking in students, first of all, our study of its specific qualities allows us to identify within these qualities those that prioritize precisely at the student age, and then further develop and formulate them.

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Analysis of the relevant literature has shown that students have structural qualities of the features of creative activity as follows. Including,

- ✚ the process of research, information processing and transformation aimed at discovering something new;
- ✚ sensitivity to additional products of intellectual activity and activity, depth of thought, vision of the problem, admiration;
- ✚ the ability to know, the ability to find solutions in non-standard situations, the ability to focus on discovering new things, deep understanding of one's own experience;
- ✚ semantic flexibility-the ability to identify the main feature of an object and propose a new way to use it;
- ✚ figurative flexibility - the ability to change the form of stimulation in such a way that it sees new features and possibilities of use;
- ✚ semantic spontaneous flexibility - the ability to produce various ideas in a special situation;
- ✚ the ability to identify problems, the ability to create a large number of ideas, originality - the ability to respond non-standard to stimuli;

- ✚ ability to improve an object by adding details;
- ✚ creativity is an intellectual activity expressed by cognitive (general mental abilities) and motivational components, the dominance of internal motivation, the activity of inquiry expressed in the formation and solution of problems;
- ✚ original yechimlarga erishish, qarorni boshqarish qilish qobiliyati
- ✚ the ability to create ideal standards that provide high aesthetic, moral, intellectual assessments, intuition, stability of mental activity, awareness of mental activity;
- ✚ independence of thinking, sensitivity to help, the ability to take reasonable risks, willingness to overcome obstacles, resistance to uncertainty, the desire to resist the opinion of others;
- ✚ the ability to get out of the circle of stereotyped associations at the last stage of mental synthesis, work with a wide semantic field;
- ✚ the ability to possess methods of reflection, transformation and reorganization;
- ✚ creative approach to activity and innovation, ignoring rules, independence in judgment, a subtle sense of humor, disregard for order;
- ✚ bright temperament, clarity of thought - the number of ideas that arise in a certain unit of time, the convenience of generating ideas;
- ✚ flexibility of thought - the ability to move from one thought to another, originality - the ability to develop ideas that differ from generally accepted stereotypes, the ability to respond to stimuli in a non-standard way;
- ✚ curiosity-sensitivity to problems, surrounding situations, receptivity - sensitivity to unusual details, contradictions and inaccuracies, willingness to quickly switch from one thought to another;
- ✚ the ability to develop a hypothesis is an independent thought, a feature of subsequent careful examination of it;
- ✚ satisfaction is the result of creativity-the logical independence of reactions from stimuli, the ability to halve, analyze and synthesize problems;
- ✚ the ability to produce ideas, create something new and unusual;
- ✚ inventiveness is a feature of solving a problem with an unsealed approach that, even with the help of a simple loophole that seems capable and hopeless in certain critical situations, allows you to correct the situation and achieve the desired result, limits the risk of courage in solving problems, lack of attitude, or takes a negative assessment of others;
- ✚ creativism is the norm of human life, creativism is the ability to form specific ideas, find unnatural ways to solve problems; achieve something meaningful and new;
- ✚ the courage of thought, risk, the development of imagination, the ability to see a problem, think, the ability to find a contradiction, the ability to transfer knowledge and experience to a new situation, independence, alternative thinking, flexibility of thinking, self-control.

**Methods.** Researcher Ye.V. Khlistova In his research, able to determine the following characteristics of independent thinking: “the emergence of interest, which is also directed to a certain field of knowledge even in childhood”, “high work ability”, “internal motivation to creativism”, “resistance”, “stubbornness” and “passion for work”, among others.

Researcher A.L.Yuzhaninova, on the other hand, lists such qualities as “striving for originality”, “studying the new”, “denying the common”, as well as “high-level knowledge”,

“analyzing phenomena”, “comparing them”, “firm interest in a particular work”, “relatively quick and easy assimilation of theoretical and practical knowledge”, “independence in work”.

Some researchers distinguish the peculiarities of independent thinking, which are perceived integrity, convergence of concepts, caution (logical, critical thinking), speech activity, risk, ease of processing, sensitivity and conscious processing of information, etc.

Numerous studies also show that students are creative activity - a synthesis of characteristics and signs that characterize the level of compliance with the requirements of a particular type, educational and creative activity and determine the effectiveness of this activity.

Observations by many researchers indicate the likelihood of successful formation of creative personality qualities in students. To do this, it is argued that students should be given the maximum opportunities to try themselves in creativity, start all with simple things.

Having studied the experience of creative activity, the processes inherent in it, it can be concluded that students will have the ability to change the stereotypes of thinking that they have already learned, learn to abandon stereotypes and build new approaches to the perception of previously acquired or new content. Researcher M.Mahmutov analyzed the state of higher education and found that in traditional education, all knowledge, skills can be acquired through reproductive assimilation, which develops memory and reproductive thinking. Reproductive and creative thinking skills are the result of reproductive assimilation. Thus, we can say that the basis of any independent thinking is precisely knowledge, skills. This position is necessary to solve the problem of creative development in the educational process, and this identified aspect serves as a psychological feature and factor in the formation of creativity characteristics of students.

We can conclude about the level of creativity characteristics of students, first of all through their achievements in the educational process and in extracurricular activities. But it is very important to determine independent thinking in time, which is only an opportunity for creative success. It is necessary to regularly study and develop the creative activity of Students, Otherwise their creative activity skills will gradually disappear.

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Tests on the creative activity of students are widely used in foreign schools. In particular, Ye.Torrens 'creative thinking tests, Dj.Guilford's Reasoning Ability test, D.Johnson's creative questionnaire, F.Williams 'comprehensive diagnostic test, A.Joseph, R.Renzulli and R.Like Hartman express tests.

It is necessary to avoid urgent conclusions about their results, without denying the positive role of the test in these tests, according to the opinions of the research authors. The condition for conducting tests does not always affect the objective conclusion about the degree of creative property.

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degree of creative property.

It should be borne in mind that tests have a greater impact on the formation of knowledge and skills than on the features of creative activity.

Researcher D.B. Bogoyavlenskaya emphasized that creativism should be considered not only as a multifunctional process, but also as an indispensable object, from which you can choose the main connection, which determines the development of the entire system and the level of consistent quality. The author receives two sufficient units in the study of creative features – intellectual activity and intellectual initiative, through which he dreams of the essence of intellectual activity.

Dj. Myers argues that high levels of intellectual ability do not guarantee the realization of independent thinking. Intelligence is a prerequisite for creative activity, but, by itself, it is not enough. Systematic goal-oriented activities are necessary for students to identify and develop their aptitude and aptitude for creativity.

Studies show that the process of developing independent thinking consists of at least two stages:

1) the development of "elementary" independent thinking as a general life ability, will not be inherent in a certain area of human life. The delicate period is from 3 to 5 years. Currently, imitation of significant adults as a creative model is probably the primary mechanism for forming creativism.

2) adolescence and youth (from 13 to 20 years old). During this period, "specialized" creativity is formed on the basis of "general" creativity: the ability to create it as a complement and alternative, which is associated with a certain area of human activity. The teenager determines for himself the "ideal model of the creator", wants to imitate him. The second stage ends with the rejection of its own imitation products and a negative attitude towards the previous ideal. The person either stays forever in the imitation phase or moves to the original creativity.

### **Conclusion.**

1. The efficient and appropriate use of methodologies, tests and additional statistical methods aimed at researching independent levels of thinking has served to highlight in more detail the tasks set by our research itself.

With the change in educational stages in students, there was also a change in the indicators of their independent level of thinking. The change in the indicators of independent thinking that serve their personality maturation is also directly related to the characteristics of personality.

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