

METHODOLOGY OF INDIVIDUALIZING COGNITIVE ACTIVITY OF STUDENTS

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Abstract. In cognitive activity, the student's independence in acquiring knowledge, developing skills and competencies is very important. The article describes independence of thinking, critical evaluation of everything perceived, rules and stages of cognitive activity and individualization in the individualization of students' cognitive activity.

Keywords. Cognitive activity, knowledge, skills, competence, independence, perception, individualization.

Ensuring the quality and effectiveness of education, wide introduction of methods aimed at the harmonious development of students into educational practice are among the most urgent issues of today. Because in the education system of the Republic of Uzbekistan, the role of the continuous education system in educating the young generation to become spiritual-ethical, mental-intellectual, physically healthy, mature and perfect people in the future has been sufficiently substantiated. Modern society sets before the school the task of preparing graduates who can act in changing life situations, think independently, see emerging problems and look for ways to rationally solve them, work competently with information, are polite, and can work independently.

In such conditions, the emergence of various person-oriented technologies designed to provide the necessary conditions for the individualization of students' cognitive activity has become a natural phenomenon. This requires the use of various forms and methods of organizing educational activities that allow individualizing the cognitive activity of students.

Various directions of new pedagogical technologies include collaborative teaching, project method, information technologies and a differentiated approach to



education in accordance with the goals of individualizing the cognitive activity of students and the most universal methods. These directions apply to the humanistic approach in psychology and education, the main distinguishing feature of which is the special attention to the individuality of the person, his personality, and the conscious development of independent critical thinking.

Psychologists unanimously emphasize the opinion that all children are capable of learning, that every normal and mentally healthy student should receive secondary education, successfully master the educational material of the school curriculum, and the teacher should achieve this. In studying the problems of increasing cognitive activity of students and increasing the efficiency of the educational process, it is important to improve the quality of education, prevent bad results, improve the educational process, and take into account the individual characteristics of students. In cognitive activity, the student's independence in acquiring knowledge, developing skills and competencies is very important. because independence in educational activity is directly related to independence of thinking, critical evaluation of everything perceived, individualization of cognitive activity.

The main problem of modern pedagogy is to reveal the objective foundations of the existing educational paradigm and the essence of the law that ensures their development. At this point, the need to create a new paradigm of humanity based on new knowledge and thinking criteria is shown, which shows that it will bring to the fore the problems of education, which broadly reflect aspects such as content, method, organizational criteria, and personnel supply, as a particularly urgent issue.

Achieving the individualization of students' cognitive activity requires the following conditions:

the level of professional and personal formation of the student is closely related to the effectiveness of the pedagogical system, which illuminates the general essence of the process organized in this way;

Organizational management of the processes ensuring the individualization of the student's cognitive activity is improving in accordance with the purpose; reflexive management guarantees the results of the goal of individualizing the student's cognitive activity.

In many specialized educational institutions, trainings are conducted using the methods of developing individual approach and emotional visual thinking. Paying attention to cognitive pedagogical technologies, applying effective methods of organizing the educational process and filling it with methodical tools that help the student to move as an educational subject, build an individual ducational trajectory, form educational goals, choose the content and forms of education, design his own methodology, is one of the bases of individualization of activity.

The term "cognitive" (from the Latin cognition - knowledge) means "knowing", "related to knowledge". This concept has become very popular since the sixties of the last century, due to the emergence of a new paradigm in psychological research - cognitive psychology. It studies processes traditional to general psychology: perception, attention, memory, imagination, and reasoning. However, the cognitive approach is fundamentally different, because all these processes are considered as components of the general process of information exchange between a person and the environment.

To individualize students cognitive activity, it is necessary to introduce cognitive educational technologies, that is, algorithmic technologies based on the psychological theory of controlling students' cognitive development during the educational process, the results of which can be objectively diagnosed. The algorithmic nature of cognitive technologies implies a common structure for all technologies of this type. The design of the educational process begins with the diagnosis of the initial situation of the students, based on its information, the application of criteria for the selection of an adequate model, the system of influence on education (teaching methods, methods, forms and tools are selected), is determined, and the educational content is selected and structured. Selected



effects are used to individualize students' cognitive activities, determine students' achievements and allow them to identify difficulties in learning new information.

Individualization of students' cognitive activity is a complex process that includes personality development and knowledge acquisition. It allows to solve the problem of increasing the efficiency of the educational process based on the individual capabilities of students.

When individualizing students' cognitive activity, it is necessary to pay attention to the following:

- 1) broad cognitive interests of students;
- 2) characteristics of educational activities:
 - preferred types of training sessions;
 - preferred methods of working with educational material;
 - features of mastering educational material;
 - preferred types of cognitive activity;
- 3) characteristics of interactions in the group, the role of the student in it;
- 4) characteristics of interaction with teachers during educational and cognitive activity;
- 5) features of the student's subjective experience that are important for the educational process.

In the individualization of students' cognitive activity, differentiated tasks not only help to develop students' logical thinking, but also control the level of development, which is very important for the entire educational process. The structure of tasks allows you to identify students who are prone to deductive thinking, contributes to their further development and helps to bring others to a higher level. Such tasks correspond to consistency in thinking, its clarity and accuracy. Here, individualization is mainly done in such a way that students are not given the same tasks, but tasks that vary according to the individual characteristics of the students, as well as by grouping students within the class according to different criteria.



Teaching individual work consists in developing students' interest in the studied material, attracting the attention of each student to what the teacher explains. In it, incomprehensible things are immediately clarified, difficult moments that prevent solid mastering of the studied material are visible.

Individualization of students' cognitive activity meets humanitarian goals, as it helps to meet the needs of self-knowledge, increases the comfort of the educational process by increasing the compatibility between the nature of the work and individual characteristics, and stimulates the development of the student as a subject of cognitive activity. Giving the right to choose the learning task, the form of task completion or the method of learning the material allows the student not only to consider its advantages and characteristics, but also to take responsibility for the result of this activity.

Individualization of students' cognitive activity involves solving the following tasks:

The first is to determine the basis for dividing students into groups with relatively homogeneous cognitive characteristics (since it is a very laborious process to select an educational task for each student).

The second task includes the development of a system of educational tasks aimed at taking into account these characteristics that manifest themselves at different stages of education.

The third task is to create an algorithm for the individualization of education (to highlight the sequence of stages of the organization of such education), which includes the inclusion of the student himself in the cognitive process guided by the teacher about the educational results and methods of solving them when applying various educational tasks, determining his cognitive characteristics, reflection. The model of individualization should provide the possibility of organizing this process within the framework of traditional forms of education that connect it with the use of modern information technologies.

From the point of view of education as a learning process organized by the teacher, the individualization of education should be based on taking into account



the cognitive characteristics of the student at each specific stage of cognitive activity (perception, understanding, consolidation of knowledge). It is appropriate to use K. G. Jung's typology when classifying the cognitive characteristics of students. The analysis of the specific features of the typology identified by K.G. Jung and the typologies developed in detail based on them shows that a person tends to use each of the four types (logic, morality, emotion and intuition) in a certain set of perception and mental operations. Individualization of cognitive activity, taking into account the typological characteristics of students and dividing them into groups, it is necessary to take into account the importance of the joint activity of these four groups, because each of the four types needs others to achieve optimal results in solving complex educational problems.

It is necessary to follow the following rules when individualizing the cognitive activity of students:

- one of the important tasks of the education directed to the person is the development of the student as a subject of educational activity, which, in particular, means to know the specific characteristics and reflect the development of education;
- the participation of the student in the process of self-knowledge increases the learning motivation, because knowing the unique characteristics of a person during adolescence is within the scope of students' interests;
- at the initial stage, in the organization of individual education, it is necessary to involve students in the process of providing psychotype diagnostics, reflecting their characteristics;
- regular use of reflection of students' characteristics, level of education, satisfaction with the educational process during the educational process is appropriate, because process during the educational process is appropriate, because it encourages them to understand themselves as subjects of education;
- the harmony of different forms of work (individual, frontal, group) increases the effectiveness of the educational process;



• when organizing individualized forms of work, it is recommended to advise the teacher to choose tasks aimed at taking into account the individual characteristics of students.

Based on the logic of the cognitive process and the traditional organization of education, as well as taking into account the above rules, we persent in individualization algorithm consisting of the following stages:

- 1. Diagnostic stage
- 2. Reflexive stage
- 3. The beginning of the stage
- 4. The stage of perception and understanding of new material
- 5. The stage of understanding the educational material
- 6. The stage of strengthening and generalization of knowledge
- 7. If the content of the topic is over, go to the 3rd step.
- 8. Control stage

The method of individualizing students' cognitive activity not only leads to an increase in educational efficiency, but also fulfills important requirements. Increases interest in self-knowledge, stimulates cognitive activity, helps to increase the level of students' convenience and independent work skills in the learning process. These stages, in addition to solving educational problems, teach how to master diagnostic methods and take into account one's own cognitive characteristics, and help to develop the most effective individual tactics. Thus, the method of individualizing the cognitive activity of students allows to improve not only the educational process organized by the teacher, but also the cognitive activity of students allows to improve not only the educational process organized by the teacher, but also the cognitive activity of students.

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