



**PSYCHOLOGICAL FACTORS FOR SUCCESSFUL EVALUATION OF  
SCIENTIFIC INFORMATION**

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ABSTRACT	KEYWORDS
<p>The article analyzes the role of cognitive processes in the process of assimilation of educational information, psychological factors for the successful assimilation of scientific information, the importance of mental processes formed in students, the inclusion of mental processes in accordance with the indicated stages of information assimilation.</p>	<p>Cognitive processes, understanding, perception, memory, thinking, goal, education, activity, educational activity, professional activity, individuality.</p>

**Introduction**

In modern education, the competence-based approach plays an important role in the development of mental qualities formed in students. Such an individual approach is a continuation of the student-centered paradigm. Therefore, individual characteristics of the subject with educational activity are taken into account in psychology.

Psychologists emphasize that the teaching process depends on the educational activity of the student, that the individual characteristics of students are related to the psychological characteristics of the educational activity and are included in it, as well as affect the process and result of information acquisition [4; p. 56].

Students are a special social group that includes a specific group of individuals studying at a higher education institution based on a specific professional goal. This period includes the period of adolescence, which lasts from 18 to 25 years. The main task of teenagers in this period is to choose their professional path. Therefore, students who aim to become qualified specialists in the profession of their choice in the future consider it important to get quality education and choose a profession suitable for their abilities.

As soon as students enter higher educational institutions, their physical development slows down, and instead of it, the period of further development of cognitive processes begins. In this period, in accordance with the indicators of improving cognitive processes of students, the textbooks and tasks in the higher educational institution should become more complex. In this case, the main task of students should be to be able to consciously work with information independently, not to perform tasks given by teachers mechanically.

According to the psychologist B. G. Ananiev, the period from 17 to 25 years old is the final period of personality formation and the main period of professionalization. During this period, young people develop self-awareness, worldview, a stable image of "I", and their own philosophy of life. Students' thinking is characterized by a tendency to abstract theory and reaches the stage of formal operations. The student will have the ability to process information hypothetically-deductively, to abstract, form hypotheses and analyze his thoughts [5; 28-p].

In the course of educational activities, young people develop the ability to approach certain problems in a non-standard way, to add specific problems to more general problems, and even to ask important questions based on poorly formulated problems. Individual methods of information processing, mental activity styles, cognitive styles and thinking styles are formed during the student age. Communication with peers is not only emotional, but also informative: students share news and knowledge with each other, learn to communicate scientific messages during seminars, all this helps to develop social intelligence. Despite the importance of communication, autonomy, desire for self-expression, independence, susceptibility to peer influence play an important role for young men [5; p. 129].

Research shows that many new things in adolescence affect not only the learning process, but also the quality of the acquired knowledge. Purposeful development of students' cognitive characteristics has a positive effect on the development and change of the structure of cognitive abilities. The success of education in this period is determined by many factors: didactic conditions of the educational process, the content of the presented information, etc. An important place among them is occupied by psychological characteristics, which include thinking, awareness of values, personality characteristics and others. The factors mentioned above are more important when it comes to mastering scientific terminology [4; p. 99].

Many researchers identify personal characteristics that influence educational outcomes. R.S. As psychological factors of the success of educational activities, Nemov considers the development of intelligence, learning motivation, freedom of cognitive processes, the ability to cooperate with peers and teachers, perseverance, striving for the goal, consciousness, self-discipline, etc. determines the availability of abilities[5; p. 93].

Psychologist N.D. Levitov in his research [2; 460 c] identified the following "psychological components of mastery":

- 1) positive attitude of students to study;
- 2) the process of direct emotional acquaintance with the material;
- 3) active processing of the received material;
- 4) the process of remembering and storing received and processed information.

The content of these components V.A. Considered and described from a didactic point of view by Krutetsky [3; 117 c].

Foreign researchers also highlight the importance of psychological factors in the learning process. A review of American scientists who analyzed articles published in the journal "Contemporary Educational Psychology" from 1995 to 2010 points out that the first place is research on the problem of individual differences, such as academic appropriation, success, creativity, gender difference, motivation, etc. Another group of researchers noted the influence of professional self-awareness on the success of training personnel, the formation of scientific interests and plans, the aspirations of future specialists to acquire knowledge and their professional activities [5; 94-b].

Thus, in the studies of domestic and foreign psychologists, in addition to distinguishing the stages of the process, mastering emphasizes its uniformity, complexity and multicomponent nature, that is, its dependence not only on external (pedagogical and socio-cultural), but also on various internal (psychological) conditions. This means that the effectiveness and success of educational activities of students, organized by the teacher and in which it is regulated and supervised in the educational process, depends on their individual psychological characteristics. Therefore, it is necessary to study the influence of psychological factors affecting the process and determine the result of their assimilation and make a distinction.

The structure of the cognitive psychological characteristics of students includes psychic processes in accordance with the established stages of the assimilation of educational information. Let's analyze the student's activity in mastering the cognitive processes of the subject of educational activity, in particular, the system of basic concepts of educational science.

At the stage of initial acquaintance with information, the process of perception plays an important role. Perception is the direct emotional reflection of objects of real reality in the totality of their properties and in the integrity of their appearance. S.L. Rubinstein emphasizes not only the sensuality of perception, but also the perception. The perception of an individual is influenced by his past experience, feelings and feelings, as well as the thinking of the perceiver, since in the process of perception, a primary comparison of the subject or concept with the original is often carried out, which in turn covers the operations of analysis and synthesis[3; 713-c].

The stage of understanding the material, its further processing and memorization is determined by the processes of memory and thinking. Memory is defined as the mental process of remembering, preserving, reproducing, and recognizing all of a person's past experiences. A. Bine and K. Byuler's scientific work is noted to be personally sustained, meaning that consciously understood material is better remembered than unintelligible memorization. The role of the attitude towards strengthening material that increases the efficiency of acquisition has also been noted [3; 714-c].

The process of thinking not only provides for the understanding and processing of educational information, but also plays an important role in the reproduction of material and its application in solving tasks. Psychologists believe that the role of thinking in the process of mastering is incomparable, thinking begins with the stage of memorizing information, and then mental operations accompany all stages of mastering[7; 147-b].

S.L. Rubinshteina, A.N. Leontyeva, J. Piaget, P.Ya. Galperina, N.A. A number of mental operations were studied and described in Menchinskaya's studies, such as analysis, synthesis, differentiation, abstraction, generalization, clarification, selection, classification, coding, re-coding, etc. One of the main themes of modern foreign educational psychology is also the consideration of cognitive processes in the educational process, among which thought processes play a dominant role [7; 147 b]. As noted above, by the age of student, a person develops verbal-logical and hypothetical-deductive thinking, which provides for the processing of the content of concepts, the establishment and explanation of internal logical connections and processes. In the process of professional education, thinking on the basis of theoretical concepts is actively developed, the mental activity of students begins to be carried out using abstract categories, logical structures and concepts.

Research on concept-based thinking sheds light on the problem of concept appropriation. In 1970, G.A. Under his leadership, Butkin was one of the first to undertake the first study of typological differences in students. Butkin" showed in readers a number of features of the process of gradual

formation of mental actions and concepts, depending on the dominance of the figurative or verbal-logical component of thinking " [6, 224-c].

In psychology, individual methods of perception of Information, its mental processing, systematization and restoration are determined by the concept of "thinking style". This phenomenon was described by American psychologists A. Harrison and R. Bremston introduced and described the way of thinking as "an open system of intellectual strategies, methods, skills and operations that a person is inclined to because of their individual characteristics" (from the value system and motivation to characteristic features)" [7; 147-b]. The authors identified five styles of thinking: analytical, synthetic, realistic, pragmatic and idealistic.

Individual human thinking has been found to influence problem-solving techniques, behaviors, and manifestations of individual traits. However, most people have mixed thinking styles, in which one or two leading styles will be present.

So, based on the research of scientists from our country and abroad, we aimed at researching educational tasks that serve to shed light on the degree of assimilation of scientific concepts (the ability to determine the concept, find it in the text, work with it, perceive it, analyze its essence from thought, formulate the skill to use scientific and professional terms). The presence of significant differences between students according to the development characteristics of the processes of perception and perception of educational information represents the scientific relevance of the problem.

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