

FORMATION OF EMOTIONAL INTELLIGENCE AS A MEANS OF INCREASING  
COGNITIVE EFFICIENCY IN THE EDUCATIONAL ENVIRONMENT

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**Abstract.** The article examines the significance of developing emotional intelligence in the context of the educational environment and its role in increasing the cognitive efficiency of learners. An overview of theoretical approaches to understanding the structure of emotional intelligence is provided, including models that identify abilities related to recognizing and managing emotions. The results of studies confirming the relationship between a high level of emotional intelligence and academic success, as well as the effectiveness of cognitive activity, are analyzed. Special attention is paid to how emotional intelligence development programs (for example, social-emotional learning) are capable of positively influencing academic achievement and cognitive development. The mechanisms through which emotional intelligence contributes to improving concentration, memory, and the ability to cope with stress in the learning process are discussed. A conclusion is drawn about the necessity of targeted development of emotional intelligence among students and teachers in order to create a favorable educational environment and increase the effectiveness of learning.

**Key words:** emotional intelligence, cognitive efficiency, educational environment, academic performance, social-emotional learning, stress resilience.

**Introduction.** Emotional intelligence (EI) is a relatively new concept in psychology, denoting a set of abilities related to understanding and managing emotions. The term was first introduced by P.Salovey and J.Mayer in 1990 to describe a person's ability to recognize emotions, distinguish between them, and use this information in thinking and activity. Later, the concept gained wide recognition thanks to the works of D.Goleman, who popularized the idea that emotional competencies can play an equal or sometimes even greater role in achieving life success than traditional intelligence (IQ). In a broad sense, emotional intelligence is viewed as the ability to *recognize, understand, and regulate both one's own emotions and the emotions of other people*. Thus, EI combines cognitive and emotional aspects: on the one hand, it includes cognitive abilities for processing emotional information; on the other hand, elements of personal and social competence.

**Methodology.** The relevance of developing emotional intelligence is particularly increasing within the education system. **Cognitive efficiency** in the educational environment is understood as the effectiveness of cognitive activity – the ability of learners to successfully perceive new information, concentrate attention, memorize educational material, and solve intellectual tasks. Cognitive efficiency is influenced not only by basic abilities and intelligence but also by emotional factors: the level of anxiety, the ability to manage stress, motivation, and self-regulation. Emotional intelligence, being associated with these factors, is considered one of the important means of increasing learning effectiveness. The development of EI among students and teachers can contribute to creating a more favorable classroom atmosphere, increasing concentration, improving memory, and enhancing overall academic performance. This article analyzes how targeted development of emotional intelligence can lead to increased cognitive efficiency in the educational environment.

The concept of emotional intelligence was initially proposed within the framework of cognitive psychology. Salovey and Mayer viewed EI as the **ability to understand and manage emotions**, including several key skills. In the early model, the authors identified three groups of abilities:

- (1) *identification and expression of emotions* – the ability to notice one’s own emotions and the emotions of others and express them adequately;
- (2) *regulation of emotions* – the ability to control one’s emotional states and influence the emotions of others;
- (3) *use of emotions in cognitive activity* – the ability to apply information about emotions to problem-solving and decision-making.

**Results.** Subsequently, this model was further developed: a four-factor structure of emotional intelligence (the so-called “*four branches*” of EI) was described, including recognizing, using, understanding, and managing emotions. This approach interprets emotional intelligence as a type of *cognitive ability*, that is, skills that can be measured using intelligence tests applied to the emotional domain.

An alternative approach was proposed within the framework of the so-called **mixed model** of emotional intelligence, popularized by D. Goleman. He included in the structure of EI a wide range of emotional and social competencies, such as empathy, motivation, the ability to cooperate, persistence, self-control skills, and social skills. In this model, emotional intelligence is understood not so much as a narrow cognitive ability, but rather as a set of personality traits on which the success of interpersonal interaction and professional activity depends. This approach has become widespread in management and education, where the development of emotional and social skills is considered part of the formation of *meta-professional competencies* of the individual.

In the early 2000s, K. Petrides and A. Furnham proposed a distinction between **EI as an ability** (ability EI) and **EI as a personality trait** (trait EI). Ability refers specifically to the cognitive aspect – skills of emotional information processing, which are measured by objective tests (an example is the MSCEIT test developed by J. Mayer and P. Salovey). A personality trait refers to a stable characteristic reflecting a person’s self-assessment of their ability to understand and regulate emotions; this characteristic is measured through self-report questionnaires. The distinction between these two aspects has been supported by research: meta-analyses show only a moderate relationship between “ability-based” emotional intelligence and general intelligence tests, as well as the independence of EI questionnaire indicators from IQ. Nevertheless, both approaches agree on one point: emotional intelligence is a skill that can be developed, and the development of this skill brings tangible advantages in various fields of activity, including education. Research over the past decade has convincingly shown that learners’ emotional intelligence positively correlates with their academic performance. Simply put, students and schoolchildren with higher levels of EI, on average, achieve greater success in learning.

The mechanisms through which emotional intelligence influences cognitive efficiency in education are diverse. One of the key factors is **stress resilience and the ability to manage academic emotions**. The learning process is inevitably associated with stressors – exams, deadlines, and complex tasks. Students with developed emotional intelligence are better able to recognize signs of their stress and anxiety and apply self-regulation strategies (for example, relaxation techniques and positive self-instruction), which prevents chronic distress. As a result, the negative impact of anxiety on memory and attention is reduced. It is known that intense anxiety and emotional experiences

“consume” working memory and limit the cognitive resources available for problem-solving. An emotionally intelligent learner restores emotional balance more quickly, thereby maintaining an optimal level of concentration and cognitive productivity during classes and examinations.

In addition, emotional intelligence affects *motivation and learning behavior*. Possessing emotional awareness skills, learners better understand their own educational goals and the value of learning and are able to maintain intrinsic motivation. The ability to manage emotions helps overcome frustration when facing difficult tasks.

**Discussion.** Instead of abandoning a complex assignment due to feelings of irritation or discouragement, a student with high EI can restructure their emotional state – for example, view the task positively or seek support – and continue working. This leads to such learners investing more effort in educational activities and using more effective learning strategies. Research shows that emotional intelligence is associated with the ability to plan study time, set realistic goals, and demonstrate persistence in learning. As a result, not only current academic performance improves, but deeper cognitive skills are also formed: critical thinking, creativity in problem-solving, and the ability to learn from mistakes.

It is also important to emphasize the **social-cognitive aspect**: in the educational environment, a significant part of learning occurs through interaction – with teachers, peers, and in group discussions.

**Emotional competence facilitates communication**, enables effective teamwork, and helps prevent conflicts. A student who is able to understand the feelings of others is better perceived within the group, exchanges knowledge more actively, and is not afraid to ask questions. As a result, a positive emotional climate is created in which intellectual activity is stimulated rather than suppressed by fear or tension. Such a climate benefits all participants in the educational process: as pedagogical observations show, groups with emotionally mature and empathetic students demonstrate higher overall engagement and productivity of collaborative work.

Finally, it is worth noting gender and age-related characteristics described in the literature.

Some studies indicate that, on average, females have a slightly higher level of emotional intelligence than males, which is associated with better skills of emotional expression and empathy. This may partially explain the traditionally higher academic performance of girls during school years: they cope more successfully with learning-related stress and organize themselves emotionally more effectively. In upper grades and higher education, the influence of emotional intelligence on learning outcomes persists, although other factors (independence, professional interests, etc.) may come to the fore. Nevertheless, the development of EI remains relevant at all stages of education – from preschool education to higher education.

The development of emotional intelligence represents an effective means of increasing cognitive efficiency in education. Analysis of theoretical and empirical data shows that emotional intelligence is closely interconnected with academic success, cognitive activity, and the overall psychological well-being of learners. Emotionally competent students concentrate better, assimilate knowledge more productively, and apply it more successfully in practice. They are more resilient to academic stress, are able to motivate themselves, and interact effectively with others, which creates optimal conditions for intellectual development. On the other hand, a low level of emotional literacy can become a barrier to unlocking cognitive potential: the inability to cope with emotions leads to anxiety, procrastination, and academic failure.

For the education system, these conclusions imply the necessity of integrating emotional intelligence development into educational programs. In schools and universities, it is advisable to include elements of social-emotional learning and conduct training aimed at developing communication skills, self-regulation, and empathy. Teacher training should pay attention to developing future educators' own emotional intelligence, since the emotional climate in the classroom is largely shaped by the teacher. The development of EI is an investment not only in students' emotional health but also in improving the quality of education: graduates who possess both high intellectual and emotional competencies are better able to solve complex professional tasks, continue self-education, and work in teams.

**Conclusion.** Thus, emotional intelligence emerges as a key component of the modern educational approach focused on the comprehensive development of the individual. Increasing cognitive efficiency through the prism of emotional intelligence development is a promising direction that is already supported by scientific research and practical results of pilot programs. Further research may be aimed at identifying the most effective methods for teaching emotional skills and assessing their long-term impact on academic achievement.

However, it is already evident that the formation of emotional intelligence should be an integral part of an educational environment striving to raise harmoniously developed, stress-resilient, and intellectually capable individuals.

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