

**DEVELOPING CHILDREN'S INTELLECTUAL ABILITIES BASED ON THE
"TRIARCHIC THEORY OF INTELLIGENCE"**

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Abstract: This article explores the scientific and psychological foundations of developing analytical, creative, and practical intelligence in children based on R. J. Sternberg's "Triarchic Theory of Intelligence." The study analyzes pedagogical methods aimed at deepening students' thinking processes, enhancing their creative potential, and forming effective decision-making skills in real-life situations. The article presents weekly and monthly developmental programs, practical exercises, and methodological recommendations structured within the triarchic model. Research results demonstrate that Sternberg's model provides comprehensive and balanced support for students' intellectual growth.

Key words: Sternberg's theory, triarchic intelligence, analytical intelligence, creative intelligence, practical intelligence, intellectual development, child psychology, cognitive abilities, triarchic model, pedagogical methods.

**РАЗВИТИЕ ИНТЕЛЛЕКТУАЛЬНЫХ СПОСОБНОСТЕЙ ДЕТЕЙ НА ОСНОВЕ
ТЕОРИИ "ИНТЕЛЛЕКТУАЛЬНОГО ТРЕУГОЛЬНИКА"**

Аннотация: В данной статье раскрываются научно-психологические основы развития аналитического, креативного и практического интеллекта у детей на основе теории «интеллектуального треугольника» Р. Дж. Стернберга. Анализируются педагогические методы, направленные на углубление мыслительных процессов учащихся, развитие их творческого потенциала и формирование навыков принятия эффективных решений в реальных жизненных ситуациях. В статье предлагаются недельные и месячные развивающие программы, практические упражнения и методические рекомендации, разработанные в рамках триархической модели. Результаты исследования показывают, что модель Стернберга способствует комплексной и сбалансированной поддержке интеллектуального роста учащихся.

Ключевые слова: теория Стернберга, интеллектуальный треугольник, аналитический интеллект, креативный интеллект, практический интеллект, развитие интеллекта, детская психология, когнитивные способности, триархическая модель, педагогические методы.

R. J. Sternberg interprets intelligence as a single yet multifaceted system. He emphasizes that intelligence consists of three main components. All of these components are interconnected and form a complete intellectual system when working together.

The first component is called **analytic intelligence**. Analytic intelligence reflects a person's ability to analyze complex situations. This type of intelligence allows for deep processing of information. Analytical processes ensure accuracy and consistency in thinking. The process of comparison is an integral part of analytic intelligence. A child, by comparing two or more elements, can understand their similarities and differences. Logical thinking is considered one of the most crucial elements of analytic intelligence. Logical thinking requires relying on logical rules when drawing conclusions.

Problem-solving skills are also among the core functions of analytic intelligence. A child develops analytical thinking by understanding a problem, breaking it down into parts, and

finding a solution. The evaluation process helps verify the correctness of decisions. Analytic intelligence is often measured in traditional IQ tests.

The second component is creative intelligence. Creative intelligence embodies the ability to generate new and original ideas. This type of intelligence ensures the active functioning of the imagination process. Through creative thinking, a child develops new approaches based on existing information. Finding original solutions is an important indicator of creative intelligence. Approaching any problem in unusual and innovative ways strengthens creativity. Divergent thinking forms the core mechanism of creative intelligence. Divergent thinking refers to the ability to propose multiple solutions to a single question.

Creative intelligence provides a solid foundation for a child’s innovative thinking. Through this type of intelligence, the child can recognize hidden opportunities within situations. Creative thinking broadens imagination and shapes new perspectives. This type of intelligence holds particular significance in fields such as art, technology, and design.

The third component is called practical intelligence. Practical intelligence encompasses the ability to adapt effectively to real-life situations. It reflects a child’s capacity to make appropriate and timely decisions. Through practical intelligence, a child learns to interpret everyday situations accurately. This form of intelligence enables the child to act in accordance with situational demands. Practical intelligence supports solving problems through hands-on and realistic strategies. It helps children rely on personal experience when making decisions. Experience-based reasoning strengthens the child’s confidence in their choices. Practical intelligence also bridges the gap between theoretical learning and real-world application. It teaches children how to transfer knowledge from the classroom into daily activities. Adaptability is considered one of the core indicators of practical intelligence. A highly adaptable child can adjust quickly to new or unexpected conditions. Practical intelligence enhances a child’s ability to cope with challenges independently. It fosters flexible thinking when dealing with various life situations. Decision-making skills are refined as the child encounters diverse practical tasks. Practical intelligence contributes to the development of social competence as well. Children learn how to communicate and collaborate effectively during real-life tasks. This intelligence type empowers them to take initiative in everyday responsibilities. As a result, children become more successful and confident in daily life activities.

Thus, Sternberg’s triarchic theory of intelligence explains children’s intellectual development in a comprehensive and multidimensional manner. In the table below, we can observe a program designed to develop children’s intelligence based on Sternberg’s model:

Table 1
Development program based on sternberg’s model

Week / Day	Week 1 (Analytical)	Week 2 (Creative)	Week 3 (Practical)	Week 4 (Integrative)
Monday	“Why?” – 10 cause-effect analyses — Analytical thinking	“10 different uses of an object” — Divergent thinking	“Shopping at the store” — simulation — Practical task	Mixed tasks (A+C+P) — Complex thinking
Tuesday	Identifying the main idea in a text, comparison chart — Analysis & comparison	Creating a drawing from an ambiguous shape — Imagination	Home tasks (arranging, assembling, tying) — Skill development	“City project”: plan, design, solutions — Integrative project
Wednesday	Logical puzzles	Inventing 5	Role-play:	“Problem + 3

	(Sudoku, odd one out) — Logical operations	new game rules — Creative construction	“Resolving a conflict” — Social intelligence	solutions” (A/C/P) — Triarchic solution
Thursday	Mini experiment: “Water evaporation” — Research activity	Story: “If animals could talk...” — Creative writing	“Find the path!” — spatial orientation game — Spatial reasoning	Preparing a scientific–practical project — Independent inquiry
Friday	Creating a diagram — Visual analysis	LEGO construction — Modeling	“Situation analysis”: 5 problems — Decision-making	Final presentation (slides/model) — Communication skills
Saturday	Mini-project: “House model” — Design skills	Mini-project: “Invention contest” — Innovative thinking	Mini-project: “Useful item” — Practical project	Final exhibition: “Invention Day” — Integrative creativity

Developing analytical intelligence in children involves strengthening analytical thinking through logical tasks and mathematical puzzles. Through cause–effect analysis, a child understands the reasons behind an event and begins to identify alternative possibilities. Tasks such as identifying the main idea of a text, describing, and comparing reinforce the skills of differentiation and generalization.

Small scientific experiments — formulating a hypothesis, testing it, and drawing conclusions — help develop the coherence and consistency of a child’s thinking. Analytical games such as Sudoku, logic cubes, and comparison cards designed to identify the extra element provide significant educational benefits.

Developing creative intelligence is carried out through exercises aimed at enhancing children’s creative potential. The activity “Ten different uses for one object” activates a child’s unconventional thinking, while finish-the-drawing tasks allow the creation of new images from unusual shapes. Fantasy storytelling encourages the child to expand their imaginative capacity, and divergent-thinking questions strengthen the ability to generate multiple solutions to a single problem.

Creative games such as Story Cubes, constructing new models with LEGO, and activities like “What would you change?” enhance cognitive flexibility and promote free, imaginative thinking.

Developing practical intelligence is carried out through tasks related to real-life situations. A child learns to solve problems according to everyday circumstances — for example, choosing the correct price in a store or building a model house, which helps develop economic and construction skills.[8] Conflict-resolution exercises shape the child’s ability to communicate and make decisions in problematic situations.

Active learning tasks such as cooking, assembling, and tying strengthen independence and the sequencing of actions. Through role-playing scenarios such as shopkeeper–customer or doctor–patient, the child acquires elements of social intelligence. Practical games, including various simulation activities and role-based enactments of social situations, are highly significant as they psychologically prepare the child for real life. To develop all three types of intelligence

simultaneously, using triarchic lesson models is highly effective. In this approach, each activity is presented in three forms: analytical tasks are aimed at analysis and comparison; creative tasks encourage innovation and the generation of original ideas; and practical tasks enable the application of acquired knowledge to real-life situations.

For example, within a lesson on the topic of “water,” an analytical task may require comparing three fundamental properties of water; a creative task may ask students to invent a new device or idea related to water; and a practical task may require writing five everyday solutions for conserving water.

Another way to harmoniously develop the three types of intelligence is to provide children with the opportunity to choose. The child selects a project aligned with one of the three types of intelligence and works in the direction they prefer. In addition, asking solution-oriented questions enhances independent thinking, decision-making skills, and intellectual depth.

At the same time, encouraging multichannel thinking is an important strategy. This approach combines discussion, graphic representation, practical activities, as well as visual and kinesthetic games. Teaching through multiple channels activates children’s cognitive processes and contributes to their comprehensive intellectual development.

Conclusion

R. J. Sternberg’s Triarchic Theory of Intelligence emphasizes the necessity of developing children’s intellect as a multifaceted system. According to this theory, the child’s full intellectual formation depends on the harmonious development of three core abilities — analytical, creative, and practical skills. Analytical intelligence strengthens the child’s ability to think analytically, compare information, and draw logical conclusions. Creative intelligence fosters the generation of new ideas, unconventional thinking, and innovative approaches. Practical intelligence develops the child’s ability to apply knowledge to real-life situations, make appropriate decisions, and adapt effectively. When all three abilities are supported simultaneously, the child’s cognitive potential expands significantly. Methods based on the triarchic approach activate various thinking processes through diverse tasks. Such exercises further enhance the child’s creative potential.

Moreover, the child begins to develop independence in navigating real-life situations and solving problems. As a result, the effectiveness of learning increases sharply. The child learns to use knowledge consciously across different contexts, ensuring balance and stability in intellectual development. Overall, Sternberg’s theory contributes to shaping a child into a well-rounded thinker — creative, analytical, and ready for practical challenges.

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