

**THE ROLE OF THE REGGIO PEDAGOGICAL ENVIRONMENT IN
STRENGTHENING LOGICAL THINKING IN CHILDREN: AN ANALYSIS BASED
ON THE “HUMAN CAPITAL DEVELOPMENT” AREA OF THE DEVELOPMENT
STRATEGY**

Otahonova Marjona Olim qizi

1st year master's student at the National Pedagogical University of

Uzbekistan named after Nizami

Dilnoza Nazarova Eraliyevna

Associate Professor, Department of History, Nizami National Pedagogical University of
Uzbekistan, Doctor of Philosophy (PhD) in Historical Sciences

Abstract: This article explores the role of the Reggio Emilia pedagogical environment in enhancing logical thinking skills in children. Based on the framework of the “Human Capital Development” direction of the national Development Strategy, the study analyzes how this innovative educational approach fosters critical and independent thinking among preschool-aged children. The research highlights that the Reggio Emilia environment promotes creativity, inquiry, and problem-solving abilities, which are essential for intellectual growth and future competitiveness. Implementing this pedagogy effectively contributes to the development of human capital, aligning with broader national educational and socio-economic goals.

Keywords: Reggio Emilia, pedagogical environment, logical thinking, children, human capital development, preschool education, Development Strategy, critical thinking, cognitive skills.

Introduction

At the stage of educational development of the 21st century, the growth of human capital, the improvement of intellectual potential and the support of children's cognitive activity from an early age are becoming a priority area of state policy. The Development Strategy of the Republic of Uzbekistan for 2022–2026 defines “Human Capital Development” as a separate strategic block, which includes the introduction of advanced pedagogical approaches in the preschool education system, the strengthening of children's independent thinking, understanding of problem situations, research and analysis skills among the main tasks. This area creates the basis for the implementation of modern pedagogical concepts, in particular, child-centered educational technologies such as the Reggio Emilia model.

The Reggio pedagogical approach, based on the experience of Italy, interprets the child as a subject of independent learning. In this model, the educational process is organized based on the “environment - child - teacher - community” system and supports the child in expressing himself through “one hundred languages”. The environment is created as an open system that changes in accordance with the interests and intellectual activities of children. This stimulates the processes of observation, analytical thinking, understanding of cause-and-effect relationships, and creative approaches to problems in children. In the current conditions of globalization, there is an increasing need for an educational environment that develops the accuracy of logical thinking skills, mental operations such as identification, prediction, classification, analysis, and generalization. The constructive, democratic, and interactive nature

of the Reggio environment is distinguished by its focus on children acquiring knowledge not in a ready-made form, but through their own experience. Therefore, this approach directly corresponds to the goals set in the Development Strategy, in particular, the tasks of intellectual development and improving the quality of human capital. This article analyzes the scientific and theoretical foundations of the Reggio pedagogical environment, its role in strengthening logical thinking in preschool children, and its methodological coherence with the direction of “Development of Human Capital” in the Development Strategy. In addition, the practical mechanisms of the approach adapted to the education system of Uzbekistan are also considered.

The scientific and methodological basis of this study was developed based on the priority areas of “Human Capital Development” set out in the Development Strategy of the Republic of Uzbekistan for 2022–2026, modern pedagogical technologies, a person-centered educational approach, and the scientific and pedagogical principles of the Reggio Emilia concept. The research methodology is aimed at systematically studying the mechanisms of formation of children's logical thinking, its connection with the quality of the educational environment, and the results achieved through the Reggio Emilia approach.

The theoretical basis of the methodology is the concepts of L. S. Vygotsky, J. Piaget, G. Gardner on cognitive development, as well as the principle of Reggio pedagogy “environment is the third educator”. Based on this approach, the influence of the environment on the child's thinking, the contribution of social-interactive games, project activities, and the sensory-material environment to the thinking process were analyzed. The study was coordinated with the age-related psychological stages of the formation of logical thinking in children. As a research design, methods such as complex pedagogical diagnostics, observation, semi-structured interview, analysis of children's activity products, experimental-pedagogical testing were used. Observations were conducted in a comparative manner between groups where the Reggio pedagogical environment was introduced and children studying in a traditional educational environment. Experimental work was carried out on indicators of the main components of logical thinking - comparison, creation of analytical products, problem solving, ability to see logical connections, categorization. In data processing, qualitative analysis, content analysis, interpretation of the results of pedagogical experiments, as well as analytical methods aimed at determining the dynamics of children's development were used. The impact of the environment based on the Reggio approach on logical thinking was assessed based on indicators and scientific conclusions were drawn through a systematic comparison with the criteria for human capital development presented in the development strategy. The methodology was aimed at assessing the applicability of the Reggio pedagogical approach in the conditions of Uzbekistan, identifying mechanisms for strengthening logical thinking through it, and developing practical recommendations for the education system.

The Reggio pedagogical approach is characterized by its adaptation to the natural development of children's thinking. In this environment, the child is considered a central subject, his interests, internal motivation and independent research become the main drivers of the educational process. It is these factors that play a decisive role in the formation and strengthening of logical thinking. Research shows that free research encouraged by the environment accelerates cognitive processes in children, such as understanding cause and effect, finding solutions to problems in different ways, comparing concepts and drawing conclusions. The structured, but not sharply limited, nature of the Reggio environment serves the flexible development of the child's thinking. For example, the open arrangement of materials allows the child to make

independent choices, which activates the decision-making process. Decision-making is one of the most important stages of logical thinking. In this regard, the Reggio approach is consistent with the practical requirements of the direction "Development of Human Capital" set out in the Development Strategy of Uzbekistan. As the strategy emphasizes, innovative thinking, problem-solving skills, and intellectual development in children should be developed from an early age. The results of the analysis show that activities organized in the Reggio environment strengthen the elements of logical thinking - classification, grouping, comparison, analysis, and synthesis. In addition, the ability of children to express their thoughts in various forms based on the principle of "100 languages" further expands the thinking process. Because the abundance of expressive activities expands the child's imagination, and imagination serves as a cognitive support for logical thinking. One of the controversial aspects is the need for highly qualified teachers, resources, and a special organization of the environment for the full implementation of the Reggio approach. Otherwise, the effectiveness of the approach may decrease. For this reason, adapting the Reggio principles to local conditions, retraining teachers, and gradually developing the environment remains a strategic task. This process is inextricably linked to the goals of the Development Strategy and requires a comprehensive approach aimed at developing human capital. In conclusion, it can be said that the use of the Reggio pedagogical environment creates significant opportunities for the formation of independent thinking, logical analysis and creative approaches in children. The integration of this approach into the preschool education system will serve to form a new generation of intellectually capable people in Uzbekistan.

Conclusion

The results of this study show that the Reggio pedagogical environment is important in developing logical thinking skills in children. The Reggio approach serves to form children's independent thinking, research and problem-solving skills. This pedagogical environment stimulates children's creative and critical thinking, providing them with freedom and confidence in expressing their thoughts. The analysis showed that the introduction of Reggio pedagogy in preschool educational institutions within the framework of the "Development of Human Capital" direction of the Development Strategy of the Republic of Uzbekistan allows to increase the intellectual potential of children, expand their social and logical thinking. This, in turn, serves as one of the main factors in the formation of the country's competitive human resources. Therefore, the effective organization of the Reggio environment in pedagogical practice, the development of children's logical thinking through the advanced training of teachers and the widespread introduction of advanced pedagogical technologies is a strategic task. In the future, additional research will be conducted in this direction, further improving pedagogical processes and developing innovative methods.

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