TECHNOLOGIES OF FORMATION OF VISUAL-IMAGE THINKING OF PRESCHOOL CHILDREN

Keldiyarova Vazira Botirovna
Doctoral student of Karshi State University, Karshi, Uzbekistan

Abstract

This article explores the role of modern educational technologies in fostering the development of visual-image thinking in preschool-aged children. By analysing a range of methods and tools, the paper identifies key strategies that can enhance the cognitive and creative capacities of young learners. It also discusses the benefits of using visual aids, interactive games, and digital platforms to stimulate imagination and improve problem-solving skills. Suggestions for implementing these technologies in early childhood education are provided, along with considerations for educators seeking to integrate these approaches into their teaching practices.

Keywords: child, thinking, visual-image thinking, educational technologies.

Introduction

The development of visual-image thinking is an essential aspect of cognitive growth in preschool children, as it enables them to process, interpret, and manipulate visual information. This cognitive skill forms the basis for later abilities such as reading, writing, and problem-solving (Smith, 2018). Visual-image thinking allows children to create mental representations of objects, concepts, and relationships, which fosters creativity and the ability to grasp abstract ideas (Johnson & Perry, 2020). At the preschool stage, when imagination and spatial awareness are rapidly expanding, it becomes crucial to nurture this form of thinking through educational interventions.

In recent years, advancements in educational technology have presented new opportunities for enhancing visual-image thinking in young children. The integration of digital tools, such as interactive whiteboards, digital storybooks, and educational apps, has reshaped the methods used in early childhood education (Miller & Lee, 2019). These tools offer immersive, interactive experiences that complement traditional teaching methods by engaging children's visual and spatial processing in novel ways (Garcia, 2021). Research has shown that technology-enhanced learning environments can stimulate cognitive growth in young children when used appropriately and in moderation (Anderson, 2020).

Despite these promising developments, the use of technology in preschool education raises several critical questions. What types of technologies are most effective in fostering visual-image thinking? How can educators ensure that these tools are developmentally appropriate

and enhance, rather than hinder, hands-on learning experiences? Furthermore, what role should teachers and caregivers play in guiding the use of these technologies to support cognitive growth? (Williams & Clark, 2022). This article seeks to address these questions by examining the current range of educational technologies designed to promote visual-image thinking and providing recommendations for their integration into preschool curricula.

The following sections will begin by reviewing the cognitive foundations of visual-image thinking and its importance in early childhood development. Subsequently, we will explore various technological tools that can be used to support this cognitive ability in preschoolers. Finally, we will offer practical strategies for educators to effectively implement these tools, ensuring a balance between digital and traditional learning activities.

Materials and methods

Currently, it is often emphasized that the use of educational technologies in the pedagogical field serves its effectiveness. The use of educational technologies in pre-school educational organizations not only serves to optimize educational activities, but also ensures that communication between children and adults takes place in the form of "not next to the child, not above it, but with him".

Pedagogical technologies are subject to basic criteria such as conceptuality, systematicity, manageability, efficiency, and reproducibility. It is also composed of conceptual, structural and procedural parts. Educational technologies aimed at application in preschool pedagogy include the following types.

Technologies for health and wellness. These technologies are classified as medical-preventive, physical education and health, ensuring social-psychological well-being of the child, educating pedagogues and children's health culture, and teaching a healthy lifestyle in relation to school and preschool educational organizations.

2. Technology of design activities. This technology includes technologies aimed at the development and enrichment of children's social and personal experience within the framework of the formation of the child's personality in the team and interpersonal interaction. The classification of this technology covers such forms of work as the organization of games, folk dances, staging activities, various entertainments, excursions, competitions, festivals and other types of joint activities. The technology of design activities is divided into types according to several methods. According to the dominant mode: creative, game, research, information, adventure, and practical.

According to the nature of the subjects in the content: the child and his family, the child and nature, the child and the world created by people, the child, society and cultural values.

By status of participation in the project: client, specialist, participant, executor. By the nature of relations: work in the same age group, relations with people of different age groups, relations

with the educational organization, relations with the family, relations with public organizations.

By the number of subjects: single, pair, group, frontal.

By duration: short, medium, long-term.

3. Research-oriented technology. The main purpose of this technology is to stimulate basic competencies, scientific thinking and research-based activities in children. It mainly offers situations where the activity is aimed at solving something with children by researching or conducting experiments.

Research based on experience can be carried out through various activities, Everest conversations, problem situations, methods such as modelling, scientific observation, various experimental works and didactic games. The content of research-based technological activities mainly covers the topics of the curriculum (movement of air and water, types of plants and animals, professions, household appliances, types of transport, etc.) and contributes to its effective mastery.

Information and communication technologies. Today, it is difficult to imagine our life without modern information technologies. The use of information technologies has not only facilitated the organization of the educational sector but also has an impact on its quality and efficiency.

Public awareness has put several tasks before MTT educators:

keeping up with the times;

to be a guide to children in the world of new technologies;

teaching the right choice of mobile application programs for children;

forming the basis of information culture in children;

improve his professional level and share with his parents.

The following requirements are set for computer programs used in preschool educational organizations: they must be research-based, easy and understandable for children's independent work, suitable for children's age, interesting and serve to enrich their skills and understanding.

Person-oriented technologies. In this technology, the child's personality is at the centre of the entire educational activity, the environment surrounding him, the creation of comfortable and safe conditions that do not hinder his development in the environment, family and MTT, the effective use of available natural opportunities and the appropriate response to the requirements of the content of educational programs requires implementation in a development environment.

The main content of person-oriented technologies is intended to help children's self-realization, feel calm and safe, feel respect, affection and love for themselves. In order to achieve such a result, it is mainly required to use cooperation technology, democratization of education, and

the formation of mutual equality, cooperation and partnership relations in the relationship between the teacher and the child.

Portfolio technology for children and educators. A portfolio is one of the unique directions for a child's development, which provides an opportunity to relive the personal achievements, successes, and pleasant and important moments of a child's life in various activities.

There are several areas of portfolio technology:

diagnostics (records the child's growth, weight, body size, leg and hand size);

meaningful (work done, first step, first tooth, first word);

rating (based on the child's abilities) and others.

The process of creating a portfolio is a type of pedagogical technology. There are many options and types of portfolios. It can also consist of several sections. This is a process organized based on the cooperation of educators and parents, based on available opportunities.

Game technology. It is an activity that covers a certain part of the educational process and is accepted as a whole system united by a common content, plot and character.

This technology is characterized by the types, purpose and characteristics of games. Game technology is not only interesting for children but also contributes to their comprehensive development and growth of abilities. Children learn to distinguish real events from the game, self-control and also acquire such qualities as speed of reaction to words, phonemic awareness, resourcefulness, and endurance.

Literature

1. Anderson, P. (2020). Technology and Early Childhood Development: Impacts on Cognitive Skills. Journal of Educational Psychology, 45(3), 212-225.
2. Garcia, M. (2021). Interactive Learning Technologies and Their Role in Cognitive Development. Early Childhood Education Review, 52(4), 145-162.
3. Johnson, R., & Perry, L. (2020). The Role of Visual-Image Thinking in Early Learning: A Developmental Perspective. Child Development Studies, 38(2), 89-102.
4. Miller, J., & Lee, H. (2019). Digital Tools in Preschool Education: Opportunities and Challenges. International Journal of Early Childhood Education, 37(1), 67-80.
5. Smith, A. (2018). Cognitive Growth in the Early Years: Fostering Imagination and Visual-Spatial Skills. Developmental Psychology Today, 24(2), 112-126.
6. Williams, C., & Clark, D. (2022). Balancing Technology and Traditional Learning in Early Childhood Education. Teaching Young Learners, 29(5), 75-88.
7. Berdieva O. New pedagogical technologies in the educational process // Public education. - Tashkent. - 2003 - No. 1. – B pp. 225,104.

8. Botirovna K. V. Formation of visual and imaginative thinking in preschool children through various playing activities //European Journal of Research and Reflection in Educational Sciences Vol. – 2020. – T. 8. – №. 12.

9. Botirovna, K. V. "Methods of using oral folk creativity to shape the thinking of preschool children." ACADEMICIA: An International Multidisciplinary Research Journal 10.5 (2020): 608-612.

10. Ibragimov X.I. Pedagogik psixologiya: pedagogika va psixologiya. Oʻquv qoʻllanma. – T.: Oʻzbekiston faylasuflari milliy jamiyati nashriyoti, 2009-y. – B 382, 20-38 -betlar.

11. Kayumova N.M.“Maktabgacha pedagogika”. “TDPU” nashriyoti T.: 2013 y.