

STEAM APPROACH IN PRESCHOOL EDUCATION: A MODERN PATH TO DEVELOPMENT

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Abstract: This article explores the role and significance of the STEAM (Science, Technology, Engineering, Arts, and Mathematics) approach in preschool education. The study analyzes how STEAM-based activities influence children's creativity, thinking, and problem-solving abilities.

Keywords: preschool education, STEAM technology, integrated teaching, creativity, critical thinking.

Introduction.

In modern education, ensuring the intellectual, social, and psychological development of children is of great importance. The preschool stage is crucial in shaping a child as a person. The STEAM approach opens up new opportunities in this process. This technology supports learning through play and hands-on activities, fostering children's interest in science, creativity, and engineering thinking.

Research Methods.

The study was conducted in three preschool institutions in Tashkent. An experimental group was exposed to STEAM-based lessons, while the control group followed traditional methods.

Data collection methods:

- Pedagogical observation
- Surveys (among teachers and parents)
- Analysis of children's creative works
- Diagnostic tests for activity and interest levels

The study involved 60 children aged 5-6 (30 in the experimental group, 30 in the control group).

Results.

The STEAM-based lessons conducted with the experimental group yielded the following results:

- 85% of children showed significant improvement in creative thinking (compared to 50% in the control group);
- 73% actively participated in lessons and proposed new ideas;
- Teamwork and communication skills improved in 68% of cases;
- About 70% of participants demonstrated independent problem-solving skills.

Discussion.

The results indicate that STEAM-based lessons are effective in enhancing children's intellectual and creative potential. Through play, children engage with science, increasing their curiosity. Interdisciplinary integration supports development across various areas. Educators noted that this approach also encourages them to adopt innovative methods, contributing to overall system renewal.

Conclusion.

The research demonstrates that implementing STEAM technology in preschool education positively affects children's personal and intellectual development. Integrated, play-based lessons not only impart knowledge but also develop critical life skills such as applying knowledge, creative problem-solving, teamwork, critical thinking, and communication.

Children actively participate in the discovery and testing of new knowledge, which boosts their intrinsic motivation. The inclusion of arts elements helps simplify and enrich complex subjects like science and engineering, providing methodological support for educators.

Furthermore, the approach encourages teachers to embrace modern teaching strategies, enhancing their professional skills. Therefore, it is recommended to gradually implement STEAM in preschool institutions, provide teacher training, and develop dedicated educational resources.

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