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STEAM IMPLEMENTATION IN THE ORGANIZATION OF ACTIVITIES OF THE DEVELOPMENT CENTERS IN PRESCHOOL EDUCATION

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Abstract
This article describes the issues of organizing development centers in children's studies in preschool educational organizations based on a modern approach.

Keywords: Modern approach, center, development, STEAM, critical thinking, independent thinking, active communication.

Introduction

The whole development of the child's personality should receive the majority of emphasis at this point in the preschool education process given the changing social circumstances. In this sense, encouraging young people's curiosity, purposefulness, independence, responsibility, and successful socialization helps to ensure society and states remain competitive.

Preschool education was successfully incorporated into the continuing education system with great ease thanks to the creation of the "state requirements for the development of children of primary and preschool age" and the "first step" curriculum. The curriculum states that it is crucial to consider the age characteristics and demands of children with certain symptoms while organizing a developing environment in a preschool educational setting. The content of the evolving environment is also indicated at the same time.

The preschool educational institution's demonstration and development environment is shaped by cultural and historical values, including national and regional traditions. It should align with the climate and natural features of the area [1]. Additionally, the environment's content should support the formation of a child's successful socialization and primary worldview. Naturally, these kinds of innovations which are meant to bring preschool education up to date in terms of both form and content require all educators, beginning with parents, to approach a child's education and preparation for it in light of current demands.

The use of STEAM technology in preschool education is crucial to achieving the aforementioned objective. One effective strategy for addressing the issues of the twenty-first century is STEAM education. It is important to note that STEAM is a well-liked teaching strategy that has been shown to foster creativity, critical thinking, problem solving, scientific investigation, and other cognitive benefits in a variety of literary works. It is implemented through daily child observation and taught in integrated early childhood education. It also talks

about how STEAM education helps kids become more engaged and capable of taking charge of their own education.
It is preferable to incorporate STEAM into early childhood education. Science is a topic that is frequently ignored. Little ones, however, are frequently inquisitive, animated, and ready to learn.
The procedures used in development centers, which are clusters of early childhood education establishments, support kids' ongoing acquisition and retention of new information. Development centers' primary objective is to teach kids how to autonomously add to their knowledge and adjust to the continuous processes of renewal. Children that attend development centers structured according to the program are exposed to the following materials:
- acceptance and implementation of changes;
- critical thinking;
- make a choice;
- ability to solve problems;
- manifestation of creative, thinking and inventive possibilities;
- taking care of people, society, country, environment[1].

METHODS

The world we live in now is not the same as it was yesterday, and it never will be. All areas of human endeavor are introducing rapidly evolving technologies. 65% of today's youth choose careers in fields that don't exist yet. Future specialists will require extensive training as well as understanding from numerous scientific, technical, and technological domains. The STEAM program, which is extensively utilized in preschool education, allows us to carry out these kinds of tasks.
Through play, STEAM empowers our kids to become inventors, the next wave of explorers, to conduct research as scientists, develop technology, design as engineers, create as artists, and analyze analytically as mathematicians. The integration of five subject areas into a single educational program through the use of a practical approach is the foundation of STEAM education, which is currently emerging as one of the major global trends. Such education is contingent upon both its ongoing nature and the growth of kids' communication skills in groups, where they share and gather ideas. Therefore, the following are included in the primary educational program: includes sections for developing logical thinking, children's studies, and Lego technology.
STEAM (S-science, T-technology, E-engineering, A-art, M-mathematics) is a modern approach combining science, technology, engineering, art and mathematics. STEAM helps children develop the following important characteristics and skills[2]:
- Comprehensive understanding of problems;
- Creative thinking;
- Engineering approach;
- Critical thinking;
- Understanding and applying scientific methods;
- Understanding the fundamentals of design.

The STEAM approach helps kids learn about the world and nature, which helps them discover their interests, develop their problem-solving and teamwork skills, learn the fundamentals of leadership, and express themselves freely. All of these things help kids reach a whole new developmental stage. The program's material is listed below:

Building self-confidence. Using this method, kids "launch" manually constructed roads, bridges, and autos. They also "develop" and test submerged and aerial structures as they reach the objective. The "product" that did not perform well is evaluated and refined over time. As a result, children experience inspiration, triumph, exhilaration, and delight when they solve all of their issues on their own and accomplish their goals. With every triumph, their self-confidence grows [3].

Active communication and teamwork. STEAM programs are also characterized by active communication and group work. At the discussion stage, they learn not to be afraid to express their opinions. Most of the time, they are not sitting around a desk, testing and developing "products" based on their designs. They are always busy interacting with educators and their friends in a collaborative team.

RESULTS

Development of interests in technical sciences. Establishing the foundational elements for the emergence of interest is the goal of STEAM education for young children in preschool and elementary school. In the natural and technical sciences, children's interest develops from a fondness for what they do. For kids, STEAM is highly engaging and dynamic, so it keeps them from growing bored. They are not aware of time passing, but they are also not weary. His passion for creating electronic games, automobiles, skyscrapers, bridges, factories, logistics systems, submarines, science, and technology is growing.

Creative and innovative approaches to projects. STEAM education consists of six stages: question (task), discussions, design, construction, testing and improvement. These steps are the basis of a systematic project approach. In turn, cooperation or joint use of various opportunities is the basis of creativity. Thus, at the same time, the use of science and technology in children can create new innovations. A healthy socio-spiritual environment that is rationally organized encourages children to search, show initiative and show their creative abilities. In this case, educators must have a clear idea of how the child's development is progressing, and for this, it is necessary to constantly monitor them.

The teacher teaches the kids in a way that is appropriate for their age, keeping in mind their developmental milestones. The pedagogical team at preschool educational institutions plays a crucial role in setting appropriate goals, considering the needs, interests, and abilities of each child. They also support the natural interests of the children and help them acquire the skills necessary for joint mastery of existence.

This method will assist kids in resolving issues later in life. This method of teaching preschoolers is being used successfully by educational institutions in many industrialized nations, such as the USA, Japan, Israel, Singapore, and Russia, to foster their creative and inventive thinking.

Before discussing the uniqueness of child development, it is important to realize that while all children go through specific developmental phases, every child is different and distinct.

Teachers need to be fully aware of each child's unique set of development markers in order to provide them exactly the same or similar items and activities. Experts also stress that teachers need to be aware of the variations in skills and interests among students in the same age group. This refers to the types of activities related to the uniqueness of child development, which respond to children's interests, that is, their level of mental, social and spiritual maturity. Such activities are aimed at children's interest in nature, satisfaction from experience and desire to test their ideas in an experiment [4].

DISCUSSIONS

In the process of education in development centers, children themselves begin to voluntarily choose the appropriate development center. When working in independent groups and individualizing children, the teacher comes up with such types of activities in which everyone is given the same instruction, but each child is allowed to achieve success independently based on it. The level of individualization can be optimized. Choosing the type of activity that requires dexterity and resourcefulness, and carefully observing the children, the teacher can change or adapt the tasks and materials if necessary.

Based on the "First Step" educational program, it is envisaged that the following development centers will be operated in preschool educational organizations:

- Construction and construction center
- Center for role-playing games and dramatization
- Language and speech
- Science and nature center
- Art center
- Music and rhythmic center [1].

Development centers give children the opportunity to independently individualize the educational process based on their personal skills and interests. For example, in the art center, one child cuts paper, and another child cuts a shape from this paper with scissors. At the center of tabletop games, one child makes a shape out of four wooden cubes, while another prefers to take a picture out of twenty-five pieces of cardboard. The teacher observes the children in the process and writes down the thoughts related to their development. After a long time, he offers children materials that complicate the task or, depending on the situation, directly helps the child to perform these tasks. Due to this behavior, the child can grow up at a good pace [6].

In development centers, educators serve as the kids' helpers. They arrange activities based on the unique developmental stage of each child and offer a variety of chances in lieu of instruction. Activities in small groups with the teacher's assistance, individually, or independently (it is important to dedicate time to the activities they have selected, as children learn to make deliberate decisions and realize their own interests and abilities) should all be included in the schedule. Youngsters ought to be capable of making independent decisions, problem-solving, collaboration with others, goal-setting, and attainment.

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