

Use of Steam Technology in Forming Creative Skills of Preschool Children

Gafurova Dilnoza Salokhiddinovna

Uzbekistan-Finland pedagogy Institute, teacher of the Preschool Education Department

Abstract

This article presents scientific theoretical approaches and pedagogical conditions for the formation of creative abilities of preschool children based on STEAM technology and various activities.

Keywords: Child, Person, Ability, Interest, Educator, Parent, Game, Activity, STEAM Technology, Process.

Introduction. Quality preparation of the child, who is at the center of preschool education, for school education, formation of a healthy, well-rounded generation, development of the desire to learn in him, using modern, innovative educational technologies in the pedagogical process, creating an environment that forms the ability of logical thinking in the child, To create activities that ensure the child's freedom and independence in educational activities, to form his personality, "I", to adapt preschool children to the rapidly changing world in the world that is rapidly changing globally, technologically, ecologically and economically. training, forming a person capable of living an active life in modern society, achieving the goal of education by providing quality education. [2]

Education and training, which is one of the most important components of personality formation and development, plays a key role in a person's living in society and finding his place, in overcoming social, economic, spiritual, cultural and political problems. The formation of a person, which is considered one of the urgent issues of today, the training of qualified personnel who fully meet the requirements of the time, begins with pre-school education, which is considered the first link of the educational system. The results of scientific research show that seventy percent of all the information a person receives during his life is determined before school, that is, before the age of seven.

Literature review. Preschool children have a natural inclination to science with a sense of curiosity and creativity. The preschool period is the period when the child has a strong desire for growth, development, self-expression, learning, and knowledge. It is during this period that the foundation is created for the development of human qualities and mental potential of the child. The earlier education starts with a child of preschool age, the earlier the effect will be manifested and it will have a positive effect on the whole life of the child. Education should be given to the child on time. In accordance with the child's age, it is necessary to teach in such a way that all his sensory organs are involved. That is, it is necessary to ensure that the child has the opportunity to independently touch, see, hear, smell, taste, practice, conduct experiments and research.

Z.R.Akhmedova, M.I.Djakbarova, A.Avazboyev, K.Hasanova conducted scientific research on STEAM approach to education, ensuring the quality of education. Yu. Makhmutazimova

researched the issues of activation of STEAM technology - Multi-studios, i.e. children's studios, in the formation of communicative competencies of preschool children.

Also, from foreign scholars on the level of study of STEAM educational technology, Leon Theremin (who conducted research on the wonderful combination of music, science and technology), scientist and inventor Steve Jobs (2011), Milton Kerker, Ben Marsden, Valmer (2018), G. Colucci (2017), Conner (2017), K. Yakman (2008), Coctantino (2015), H.E. Wilson (2018), Contradty, Bogner (2018) conducted scientific research and research.

The development of creativity in preschool educational organizations is carried out through various activities of children, for example, with the help of practical games and visual activities. We can conclude that one of the urgent tasks facing preschool education specialists and psychologists is to improve the methods of interaction with the child, which help to open the creative potential of the preschool age child.

The world of a preschool child is imagination and magic. For many children, their creativity reaches its peak before the age of six. Supporting the child's creativity lays the groundwork for his continued development in the following years. When we talk about children's creativity, we often think about creative arts such as clay work - sculpture, painting and drawing, but there is a need to improve the formation of creativity in children by connecting creativity to scientific ways. In this way, we will create a foundation for future creative and scientific activities. creative-scientific activity - can include problem solving, idea operation or transformation into reality, discovery and invention. F. Froebel's pedagogical work "Human Education" (1826) emphasized that man is essentially a creator. He believes that properly organized creative activity should reveal and develop the corresponding creative inclination. "Everyone has great creative abilities, our task is to develop them" - Ken Robinson. [7]

The development of our creative thinking and creative abilities is widely recognized as the most important issue of the 21st century. Our world is changing rapidly, and the ability to adapt and innovate is becoming increasingly important. In addition, we know that childhood is the first stage in the formation of such abilities. In order to form creativity in a child, the most important thing is to develop attitude and common sense. For this, we need to ensure that the child has a balanced healthy diet, physical exercise, regular rest and sleep, social and emotional interaction, and most importantly, freedom of play and creative activity. he did. Creative activities are beneficial for a child's sense of well-being and mental health. This is true for everyone, children and adults alike. [2] Creative activities shape the child's imagination, because in this activity there is an opportunity to use the imagination. Creative activities give children the freedom to explore their thoughts and feelings and develop new and original ideas.

Psychologist Vygotsky believed that creativity exists when any discovery is made, whether it is artistic, scientific or technical. Vygotsky also believed that creativity is related to previous experience: "... the more a child sees, hears and experiences, the more he knows and assimilates, the more elements of reality his experience contains, and the more effective his imagination is." [6]

It highlights how creativity and cognitive skills are interconnected in early childhood, and how creativity supports cognition. In support of this, recent research from Durham University has highlighted the importance of creativity in various aspects of development and growth, saying: "Exposure to a creative learning environment can improve children's physical, social, emotional and helps cognitive development. Creative opportunities stimulate the interest, creativity and imagination of young children, help develop communication skills; Being creative helps children deal with their feelings and fears, manage their emotional states, and develop a positive attitude toward challenges, change, and self-directed learning.[5]]

Social psychologist Graham Wallace describes the stages of creativity development in children as follows: Preparation stage: This is the "planning" stage of creativity, where the thinker thinks about what children want to do. Incubation: This stage is described as "unconscious processing". He believes that the incubation stage is where the thinker steps back to think about their creative

goal or planned work. The Enlightenment Stage: This stage is the moment when everything falls into place, according to the thinker, who considers this stage to be the "light moment" of the creative process. Proofing Stage: This is the final stage of the creative process and the part where everything ties together. The validation stage is where the thinker can finalize their ideas and evaluate what they have done. [8]

These stages allow children flexibility and back-and-forth as they think, learn, encounter obstacles, return to thinking, and discover again. This process involves endurance to continue.

The idea of stimulating and nurturing creativity, "cultivating" creativity is proposed by Professor Tina Bruce. In this regard, adults emphasize their role in supporting children's ideas, not in supporting them. It is important for adults to recognize the child's early work during his research. Bruce said that if children are not handled carefully, the creative abilities that are present in the child will not develop or may quickly fade". [7]

Stimulating influences allow the child to take the lead and allow them to take responsibility for their creative pursuits. It is important to allow children to make their own decisions and choices, not to influence them with warning words or advice, children need the freedom to take risks and make mistakes.

When we talk about stimulating creativity, we are really talking about stimulating the thinking skills that lead us in the direction of creativity. These skills include creative thinking skills, the ability to generate new ideas, and critical thinking skills to analyze and reflect on children's imaginations, which can be important in supporting children to maintain their flow and enthusiasm. It is necessary not to pay attention to the final product, but to support the child's ideas and give them opportunities. By asking children simple questions, for example, "What are you paying attention to ...?", "I wonder if there are other ways to do this ...". This approach helps them notice and develop their own thinking. [8]

Conclusions. Thus, this teaching technology is designed to develop both professional (subject-related) and social competencies of modern youth, which is in clear demand for them due to the ability to comprehensively solve certain problems, think critically and creatively, and find uncertainties. allows to Enables implementation of standard solutions and innovative activities in life. In our understanding, STEM education is the creation of conditions for the formation of a science-oriented and harmonious educational base based on the modernization of socio-humanitarian education, it is a choice of wide opportunities for professional and social education, and overall personal development. provides.

In conclusion, we note that the scientific and practical potential of STEM technologies is huge, but their simultaneous introduction into the educational system with the project method at different levels contributes to the development of new technologies, innovative thinking, and creative abilities of students. It provides the need for talented young people. It allows students with multifaceted knowledge to better understand the complex and extremely interesting world that surrounds us in all its diversity.

References.

1. State Curriculum of Preschool Education Organization "First Step". T.: UN Children's Fund (UNICEF), 2018. Compilers: I.V. Grosheva, L.G. Evstafeva, D.T. Mahmudova, SH.B. Nabikhonova, S.V. Pak, G.E. Dzhanpeisova.-T.: MTV, 2018. - 71 pages
2. T.S. Volosovets, V.A. Markova, S.A. Averina STEM-obrazovanie detey doshkolnogo i mladshogo skolnogo vozrasta. M. BINOM.. Laboratory science 2019.
3. Evdokimova E.S. Technology projection v DOU E.S.Evdokimova. - M.: TTs Sfera, 2006. - 64 p.
4. Wenger L.A., Dyachenko O.M. Igry i upravneniya po razvitiyu umstvennyx kobnostey u detey doshkolnogo vozrasta. M., 1989. 3. Vygotsky L.S. Voobrazhenie i tvorchestvo v detskom vozraste. M., 1954.

5. Vygotsky L.S. Problemy age periodization of children's development // *Voprosy psichologii*. 1972. No. 2.
6. Bruce, T. (2004) *Cultivating Creativity in Babies, Toddlers and Young Children*. London: Hodder and Stoughton Educational.
7. Bruce, T. (2004) *Cultivating Creativity in Babies, Toddlers and Young Children*. London: Hodder and Stoughton Educational.
8. Leytes N.S. Rannie proyavleniya odarennosti // *Voprosy psichologii*. 1988. No. 4
9. Berkinblit M.B., Petrovsky A.V. *Fantasy and reality*. M., 1968.