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DEVELOPING CREATIVE SKILLS IN CHILDREN THROUGH WORKING WITH NATURAL MATERIALS

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Abstract:
This article examines the pedagogical importance of developing creative skills in children through working with natural materials. Natural materials are considered an effective means of developing children's imagination, independent thinking, aesthetic taste, fine motor skills, observation, and diligence. Practical activities with leaves, branches, seeds, stones, sand, shells, cotton, straw, dried flowers, and other natural objects help children understand nature, appreciate its beauty, and develop a careful attitude toward the environment. The article analyzes the educational and developmental potential of activities based on natural materials, their role in shaping children's creativity, and the methodological approaches of teachers. It also highlights ways of developing ecological culture, imagination, creative thinking, and practical activity skills in children through work with natural materials.

Keywords: natural materials, creative skills, children's creativity, preschool education, aesthetic education, ecological education, handicraft, imagination, fine motor skills, practical activity.

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Introduction

In modern preschool and primary education, the development of children's creativity is one of the most important pedagogical tasks. Creativity is not limited to artistic talent or the ability to draw beautifully. It is a broader personal quality that includes imagination, originality, independent thinking, the ability to find unusual solutions, emotional sensitivity, and the desire to create something new. In childhood, creative skills are formed through play, observation, communication, experimentation, and practical activity. Therefore, the teacher should create an educational environment that gives children freedom to explore, compare, combine, transform, and express their own ideas.

One of the effective ways of developing children's creative skills is working with natural materials. Natural materials are close to children's everyday experience. Leaves, branches, stones, seeds, cones, shells, sand, clay, feathers, flowers, fruits, and other objects found in nature attract children's attention because of their color, shape, texture, smell, and variety. They stimulate curiosity and invite children to touch, examine, compare, imagine, and create. Unlike ready-made toys or industrial materials, natural materials are not fixed in meaning. A leaf can become a bird's wing, a boat, a dress, a tree, or part of a picture. A stone can turn into an animal, a house, a road, or a decorative element. This openness of natural materials develops symbolic thinking and creative imagination.

The relevance of the topic is connected with the need to develop children as active, creative, observant, and environmentally responsible individuals. In many educational settings, children are often offered ready-made templates, standard tasks, and identical results. Such activities may develop accuracy, but they do not always stimulate originality and independent thinking. Natural materials, on the contrary, encourage children to make choices, search for their own solutions, and create unique products. This corresponds to the principle of child-centered

education, according to which the child is not a passive receiver of information, but an active participant in the learning process.

Working with natural materials is also important because it connects creativity with ecological education. When children collect leaves carefully, observe seeds, use dried flowers, or make crafts from stones and shells, they begin to notice the beauty and diversity of nature. They learn that natural objects should not be destroyed carelessly and that every element of nature has its own value. Richard Louv notes that children's direct contact with nature supports emotional, cognitive, and social development and helps overcome the alienation from the natural world that is common in modern life [1].

The pedagogical value of working with natural materials can also be explained through the concept of experiential learning. John Dewey emphasized that education should be based on real experience and meaningful activity [2]. When a child creates a composition from leaves or makes an animal figure from cones and branches, learning becomes active and personally meaningful. The child does not only listen to the teacher's explanation, but acts, thinks, experiments, corrects mistakes, and experiences the joy of creating.

The development of creativity is closely related to the development of thinking and speech. During activities with natural materials, children discuss their ideas, describe objects, explain what they are making, compare forms, and express emotions. According to L. S. Vygotsky, imagination and creativity in childhood are connected with experience, social interaction, and speech development [3]. Therefore, activities with natural materials should be accompanied by dialogue, questions, storytelling, and reflection.

The purpose of this article is to analyze the pedagogical possibilities of developing creative skills in children through working with natural materials.

The objectives of the article are: to define the educational value of natural materials; to identify their influence on children's creative, cognitive, aesthetic, ecological, and practical development; to analyze effective methods of organizing activities with natural materials; and to provide methodological recommendations for teachers.

Methods

The article is based on theoretical analysis of pedagogical and psychological literature, comparison of educational approaches, generalization of practical experience, and pedagogical observation of children's activities with natural materials. Since the topic is related to the methodology of preschool and primary education, special attention is paid to the developmental and educational functions of practical creative work.

The theoretical foundation of the study includes the ideas of experiential learning, developmental education, aesthetic education, ecological education, and child-centered pedagogy. Dewey's theory of learning through experience helps to understand why practical work is more effective than passive learning for young children [8]. Vygotsky's theory explains the role of adult guidance, language, and social interaction in the development of children's imagination and creative thinking [10]. Montessori's approach is also important because it emphasizes the prepared environment, sensory development, independence, and the child's free activity with real objects [4].

The method of theoretical analysis was used to study scientific views on creativity, practical activity, environmental education, and preschool pedagogy. The comparison method made it possible to distinguish between template-based activities and creative activities with natural materials. The generalization method

was used to identify the main pedagogical outcomes of working with natural objects.

Pedagogical observation is especially important in studying children's creative activity. Through observation, the teacher can determine how children choose materials, how they combine objects, how they solve difficulties, whether they ask questions, whether they work independently, and how they express their ideas. For example, one child may use leaves to create an animal, another may make a pattern from stones, and another may invent a story about a forest house made from branches. Such observations help the teacher understand each child's creative style and provide appropriate support.

The study also uses an activity-based approach. In this approach, children's development is considered through their active participation in practical tasks. Natural materials become not only objects of observation, but also tools for creative expression. Children learn by touching, arranging, comparing, cutting, gluing, building, decorating, and explaining their work.

The principle of integration is also applied. Activities with natural materials can be connected with different educational areas: speech development, mathematics, art, environmental education, labor education, and moral education. For example, children can count seeds, compare the size of leaves, describe the texture of stones, create a story about a handmade animal, or discuss how to protect nature. This integrated approach increases the pedagogical effectiveness of the activity.

Results

The analysis shows that working with natural materials has a strong developmental effect on children's creative skills. The first important result is the development of imagination. Natural materials do not have one fixed function. Their meaning depends on the child's imagination. A cone may become a

hedgehog, a tree, a tower, or a part of a decorative composition. A dry leaf may become a butterfly, a fish, a crown, or a fairy-tale character. This flexibility stimulates symbolic thinking and helps children create new images.

The second result is the development of creative thinking. When children work with natural materials, they constantly make decisions. They choose which material to use, how to place it, what to add, how to combine colors and shapes, and how to solve technical problems. For example, if a branch does not stand firmly, the child must think about how to support it. If a leaf breaks, the child may find another solution or use the broken leaf in a new way. Such situations develop problem-solving skills and creative flexibility.

The third result is the development of fine motor skills. Activities such as picking up small seeds, arranging stones, gluing leaves, tying threads, shaping clay, or decorating compositions require precise hand movements. Fine motor development is closely connected with children's speech and cognitive development. Therefore, activities with natural materials are useful not only for artistic creativity, but also for general intellectual development.

The fourth result is the development of observation. Before using natural materials, children examine them. They notice differences in color, shape, size, texture, weight, and smell. They compare smooth and rough stones, green and yellow leaves, large and small seeds, dry and fresh branches. This develops sensory perception and attention. Jean Piaget emphasized that children's thinking develops through active interaction with objects and the environment [5]. Natural materials provide rich opportunities for such interaction.

The fifth result is aesthetic development. Nature offers a wide variety of forms and colors. Leaves have different patterns, stones have different shades, flowers have delicate structures, and shells have unique shapes. When children use these

materials in creative work, they learn to see harmony, rhythm, contrast, proportion, and beauty. They develop aesthetic taste and emotional sensitivity.

The sixth result is ecological education. Working with natural materials forms a careful attitude toward nature. Children learn that materials should be collected without harming plants and animals. The teacher can explain that it is better to use fallen leaves, dry branches, seeds, or stones rather than damage living plants. In this way, creative work becomes connected with ecological responsibility. E. O. Wilson's idea of biophilia suggests that human beings have an innate tendency to connect with living nature [6]. Educational activities should support this tendency from childhood.

The seventh result is the development of independence and confidence. When children create their own products from natural materials, they experience satisfaction and pride. They see that they can make something beautiful and meaningful with their own hands. This strengthens self-confidence and motivation. It is especially important that every child's product can be unique. Unlike template-based tasks where all works look similar, natural material activities allow individual expression.

The eighth result is social development. Many activities can be organized in pairs or groups. Children may collect materials together, create a common composition, discuss ideas, help each other, and present their work. Such cooperation develops communication skills, patience, respect for others' ideas, and the ability to work in a team.

The ninth result is speech development. During creative work, children name materials, describe their properties, explain their ideas, and tell stories about their products. For example, after making a bird from leaves and feathers, a child may tell where the bird lives, what it eats, and where it flies. This connects creative activity with storytelling and language development.

The tenth result is the development of emotional intelligence. Natural materials often evoke positive emotions: surprise, joy, curiosity, calmness, and admiration. Children enjoy touching smooth stones, smelling dried flowers, hearing the sound of seeds, and seeing colorful leaves. Such sensory-emotional experiences make learning more meaningful and memorable.

Discussion

The development of creative skills through working with natural materials should be considered as a holistic pedagogical process. It includes sensory perception, imagination, practical action, emotional experience, communication, and reflection. The child does not simply make a craft; the child explores the world, expresses personal ideas, solves problems, and learns to value nature.

One of the main advantages of natural materials is their accessibility. They are inexpensive, varied, and easily found in the surrounding environment. However, their pedagogical value does not depend only on availability. The most important point is how the teacher organizes the activity. If the teacher gives all children the same template and requires identical results, creativity may be limited. But if the teacher allows children to choose materials, propose ideas, experiment, and create their own compositions, the activity becomes truly creative.

The teacher's role is to guide, inspire, and support children without replacing their independent thinking. The teacher may show several examples, but should not force children to copy them exactly. It is better to ask open-ended questions: "What can this leaf become?", "How can we use these stones?", "What story can you tell about your composition?", "What else can you add?", "How can you make it stronger?" Such questions stimulate creative thinking and help children find their own solutions.

Activities with natural materials can be organized in different forms. Individual work allows each child to express personal ideas. Pair work develops cooperation and communication. Group work helps children create large collective compositions, such as “Autumn forest,” “Underwater world,” “Birds in the garden,” or “Our nature corner.” Collective works are especially useful for developing social skills and a sense of shared responsibility.

The content of activities should change according to the seasons. Autumn provides rich materials such as leaves, seeds, fruits, cones, and branches. Children can create leaf applications, seed mosaics, autumn landscapes, and animal figures. Winter activities may include compositions from cotton, dry branches, cones, and paper combined with natural elements. Spring offers opportunities to work with flowers, sprouting seeds, green leaves, and soil. Summer activities may include sand, stones, shells, flowers, and garden materials. Seasonal organization helps children notice changes in nature and connect creativity with real-life observation.

Safety is an essential requirement. The teacher should select materials that are clean, safe, non-toxic, and appropriate for children’s age. Sharp stones, thorny branches, poisonous plants, or allergenic materials should not be used. Children should be taught hygiene rules: washing hands after working with natural materials, not putting small objects in the mouth, and using glue or scissors carefully under supervision.

Working with natural materials can be integrated with other educational areas. In mathematics, children can count seeds, compare the length of branches, sort stones by size, and create patterns. In speech development, they can describe materials, invent stories, and present their work. In environmental education, they can learn about plants, animals, seasons, and careful use of natural resources. In

art, they can study color, shape, composition, and decoration. In labor education, they learn accuracy, patience, and responsibility.

The use of natural materials is also valuable for inclusive education. Children with different abilities can participate at their own level. A child who has difficulty drawing may successfully create a composition from stones and leaves. A child with speech difficulties may express ideas through practical work. A child with high energy may be involved in collecting, sorting, and arranging materials. Thus, natural material activities create conditions for success for different children.

Another important aspect is the emotional connection between the child and the created product. When children make something from natural materials they have collected themselves, the product becomes personally meaningful. They remember where they found the leaf, why they chose a particular stone, or how they decided to make an animal from a cone. This personal connection strengthens motivation and develops a sense of ownership.

The teacher should also involve parents in the process. Parents can help children collect safe natural materials during walks, talk about plants and seasons, and support home creative activities. Family participation strengthens the connection between educational institution and home. It also encourages children to observe nature outside the classroom.

From a methodological point of view, it is useful to organize work with natural materials in several stages. The first stage is observation and collection. Children examine natural objects, compare them, and select materials. The second stage is planning. Children think about what they want to create. The third stage is practical creation. They arrange, glue, build, decorate, and combine materials. The fourth stage is presentation. Children explain their work and listen to others.

The fifth stage is reflection. The teacher asks what was interesting, what was difficult, and what could be done differently next time.

This structure helps turn a simple craft activity into a meaningful pedagogical process. It develops not only manual skills, but also planning, communication, evaluation, and self-expression.

It is also important to avoid over-assistance. Sometimes adults try to make children's work "more beautiful" by correcting it too much. As a result, the product may look neat, but the child's creativity decreases. The main value of children's creative work is not perfect appearance, but the process of independent thinking, experimentation, and self-expression. Therefore, the teacher should respect children's ideas and allow natural imperfection.

The pedagogical discussion shows that natural materials are not only tools for crafts. They are educational resources that connect children with nature, develop creativity, strengthen ecological awareness, and support holistic personality development. When used systematically and thoughtfully, they become an important part of modern preschool and primary education.

Conclusion

Working with natural materials is one of the most effective ways to develop creative skills in children. It combines artistic, cognitive, ecological, aesthetic, labor, and social education in one practical activity. Through leaves, stones, seeds, branches, shells, sand, clay, and other natural objects, children learn to observe, imagine, compare, create, communicate, and express their ideas.

The study shows that natural materials stimulate children's imagination because they are open-ended and can be transformed into different images. They develop creative thinking because children must make choices and solve practical

problems. They support fine motor development, sensory perception, speech, aesthetic taste, ecological responsibility, and social cooperation.

The effectiveness of such activities depends on the teacher's methodological approach. The teacher should organize a safe and rich environment, provide a variety of materials, ask open-ended questions, encourage independence, and respect children's original ideas. Activities should be integrated with speech development, mathematics, environmental education, art, and labor education.

Natural material activities are especially valuable because they help children form a careful and emotional attitude toward nature. Children begin to understand that nature is not only a source of materials, but also a living and beautiful world that should be respected and protected. Therefore, working with natural materials contributes not only to the development of creative skills, but also to the formation of ecological culture and moral qualities.

In conclusion, the systematic use of natural materials in preschool and primary education supports the harmonious development of children. It helps them become creative, observant, responsible, independent, and environmentally conscious individuals.

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