

Formation of the foundations of ecological culture among preschoolers by means of art

O. P. Radynova^{1,*}, *I. V. Gruzdova*², and *I. A. Korsakova*¹

¹Moscow State Institute of Music named after A.G. Schnittke, Moscow, Russia

²Togliatti State University, Togliatti, Russia

Abstract. The article reveals the problem of forming the foundations of ecological culture in preschool children by means of musical art. Formation of the foundations of ecological culture occurs not only on the basis of accumulation of natural history knowledge, in preschool childhood this process proceeds more efficiently if it is based on sensory cognition of the beauty and harmony of nature, the motives of a respectful attitude towards nature crystallize in the experience of emotional and value experiences. The article authors consider the mechanisms of formation of a child's ecological culture in the process of perceiving the artistic and figurative content of music. Sensual experience as the basis of cognition in art makes it possible to form a system of value experiences, including those associated with the child's attitude to animate and inanimate nature. Emotional responsiveness to the beauty of music, works of art reflecting images of nature is associated with responsiveness in life. The need to protect, preserve and increase the wealth of native nature can be brought up in the experience of communicating with music, if the child experiences the content of the musical image as a personally significant event.

1 Introduction

The problem of ecology on a global scale today attracts the attention of scientists from different countries. The search and development of the latest technologies are underway to protect the planet from constant destructive tendencies as a result of the phenomena of technological progress and the inconsistency of development of the culture of the human personal factor for humane communication with nature.

The definition of ecological culture is provided in the concept of its formation that was developed by B.T. Likhachev, N.S. Dezhnikova, I.V. Tsvetkova and a number of other scientists. In this concept, ecological culture is understood as a system of special knowledge, as well as assimilation of methods of activity focused on compatibility with nature. According to the concept, ecological culture is characterized by emotional responsiveness, a sense of responsibility for the environment, it is based on the desire to live in harmony with it, on a person's strict observance of legal laws [1].

* Corresponding author: olgaradynova@mail.ru

It is very valuable that this definition includes both knowledge, activity-humane components, and emotional-evaluative (emotional responsiveness), and strong-willed (personal quality of responsibility for preservation of the natural environment).

Many studies have been carried out in this "coordinate system", including in the system of vocational education [2].

2 Materials and Methods

In preschool age, the child's connection is established with the spheres of life that are leading for the personality: with the world of people and nature. The fundamentals of ecological culture are brought up in preschool childhood as a result of accumulation of positive experience of communication between a child and nature, an emotional assessment of its beauty and a variety of natural phenomena, formation of a conscious emotional-evaluative, value attitude towards the natural world and the animal world.

In modern standards of preschool education (as well as in the standards of elementary school), among the tasks of the educational system, the following are named: "Ensuring the continuity of goals, objectives and content of education implemented in the framework of educational programs at various levels"; "Development of a general culture of personality" [3].

Development of the foundations of ecological culture in preschool age is one of the most important tasks of upbringing a general culture of the individual and involves formation of moral and aesthetic consciousness (aesthetic emotions, interests, ideas about beauty in nature, art and in life and moral ideas and concepts about behavior, actions, good and evil).

The preschooler receives the first ecological representations from fairy tales, works of folklore (nursery rhymes, jokes, chants), observations of natural phenomena, listening to music, drawing, modeling, moulding, making crafts from natural material, as well as in the process of creative and didactic games. Integration of the impressions received by the child from different sources most fully reveals to the preschooler the ecological picture of the world in the field of available knowledge about nature and respect for it. Wherein, the experience of a humane value attitude towards nature, obtained at the stage of preschool childhood, can, under certain conditions, become basic in formation of the ecological culture components. This is due to the fact that vivid emotional and value experiences received in childhood have a profound impact on the psyche and personal development of the person [4].

In the study of topical problems of preschool pedagogy, works devoted to environmental education are provided in a rather diverse way. The concepts of "the basis of the preschooler ecological culture", "ecological literacy" are considered, the effective role of play in the formation of spiritual and moral consciousness, an emotionally-colored caring attitude of a child to nature is proved.

Formation of the ecological culture of preschool children is considered as the dominant goal of upbringing in S.N. Nikolaeva "Young Ecologist", N.A. Ryzhova "Our Home is Nature", T.A. Koptseva "Nature and the Artist". The culturological approach implemented in the author's programs of ecological education of preschoolers presupposes not so much the assimilation of knowledge about animals and plants by children, but development of the ability to see the beauty and harmony of the rich and diverse world of nature, take care of all life on Earth, take care of the preservation of nature, observe ecological rules of behavior in nature.

The ecological culture of a preschool child is interpreted by N.A. Ryzhova [5] from the standpoint of the moral aspect of personality development that implies the education of ideas about the intrinsic value of nature, an emotional positive attitude towards it, as well as

development of primary skills for environmentally competent and safe behavior in nature and in everyday life.

In the theory of preschool education, a search is carried out for effective pedagogical technologies, conditions and methods that contribute to formation of the foundations of ecological culture in preschool children. It is proved that creation of a developing subject-spatial environment, accumulation of observation experience, communication with nature, the enrichment of environmental knowledge, aesthetic and ethical feelings and experiences, interaction with parents contribute to this process (N.F. Vinogradova [6], I.D. Zverev [7], I.I. Komarov [8], N.N. Kondratyev [9], P.G. Samorukova [10], S.N. Nikolaeva [11], N.A. Ryzhov [12] and others).

Consideration by researchers of the general structure of a personality's worldview based on knowledge also presupposes the formation of a value attitude towards the world (including the natural world) in the process of artistic education. Here, the role of the emotional background is played by a variety of works of art used as a means of bringing natural science knowledge to life. The deep foundations of art are little used as a subject of research in the science of education and in the practice of working with preschool children in the field of forming a child's ecological culture.

Images of art are included in the programs of environmental education of children, but technologies that implement artistic and practical activities in introducing preschoolers to eco-cultural values in reliance on sensory, artistic and imaginative perception and experience of art, formation of a positive emotional-evaluative, value conscious attitude and transferring it to the natural world. The opinion of scientists is quite widespread that it is precisely environmental education that aims at formation of an environmental culture, considered as a harmonious, scientifically grounded interaction between men and the environment. In this case, environmental education is a system of scientific knowledge about human interaction with the environment, about the norms and rules of behavior in a socio-natural environment, as well as a system of practical skills and abilities to preserve favorable environmental conditions for life (A.N. Zakhlebny, E.N. Dzyatkovskaya [13], D.S. Ermakov, I.D. Zverev, T.I. Suravegina [14] and et. al).

The possibilities of art (music, fine arts, poetry, musical theater) in formation of the foundations of the ecological culture of preschool children have not been sufficiently studied. Works of art are included in the programs, but outside the deep immersion in their content. Music plays the role of only an emotional background (N.G. Kuprina).

In this regard, the dissertation of N.G. Kuprina "Ecological and Aesthetic Approach in the Artistic Education of Children" [15] that examines the pedagogical concept of artistic education of children on the basis of the ecological and aesthetic approach. The work is carried out in reliance on philosophical, culturological, art criticism theories of culture and considers the ecological and aesthetic approach as formation of a person's attitude to nature as a spiritual and aesthetic value.

The dissertation shows the effectiveness of the method of emotional-activity experience by children of ecological and aesthetic values in polyartistic play activity, emphasizes the role of artistic education of children in the formation of a person's value relationship to nature.

In another work, dissertation of V. G. Kezin "Formation of the ecological culture of the personality of younger adolescents in the pedagogical process of the school by means of musical art" [16], the problem of the formation of ecological culture is associated with the possibilities of music in this process. However, it was carried out in a different age category – the adolescent period of childhood and considers the possibilities of using music in the lessons of natural history, biology and geography - forms of arranging the cognitive activity that are not used in preschool childhood. The experimental part of the study presents lessons that include both traditional didactic methods and innovative ones. For example, the method of "artistic representation of natural objects" from environmental pedagogy

(S.D. Deryabo, V.A. Yasvin), "the method of thinking about music" (D.B. Kabalevsky, L.V. Goryunova), the method of "comprehending the personal meaning of a musical work" (A. Pelichauskas) from musical pedagogy. Conclusions of the author of the thesis are that musical art combined with the comprehension of scientific knowledge of natural history, influencing the development of abstract theoretical thinking, can form a holistic worldview, a holistic personality and its ecological culture.

3 Results and Discussion

Returning to the preschool age of children, we emphasize that the feeling of beauty, the foundations of musical, artistic, moral-aesthetic, ecological, general culture, are brought up in a child from early childhood, to a great extent - by means of art. The images of nature in these types of art are presented through the feelings of the composer, artist, poet, who inspired him/her to create artistic images that express the experiences that have arisen from the aesthetic perception of their beauty in life. These artistic images were created in the process of creativity of talented people at different times, in different countries, and have come down to us as values of artistic culture, affecting our perception through the prism of their consciousness, sharpening the expressive features of the artistic language of the created images, enhancing their impact on our impressions.

L.S. Vygotsky repeatedly in his works draws attention to "the issue of the practical life action of art." Emphasizing the idea that art at all times was considered as a part and a means of education, the scientist argued that it acts as "the organization of our behavior for the future, a forward orientation" [17]. L.S. Vygotsky emphasized that perception of works of art contributes to the personal development of the child - empathy, thinking and speech, imagination and creativity, and his/her cultural development.

Different types of the art have their own means of expressing content, their own capabilities for the personal development of the child. In music, these are sounds, melodies, harmonies, which in different ways express the change of images and moods. When emphasizing the power of the influence of music on development of the emotional sphere of the child, L.S. Vygotsky wrote that "the expansion and deepening of feeling, its creative restructuring, is the psychological basis of the art of music" [18].

To carry out emotional-evaluative creative activity, a child needs a "dictionary of emotions", with the help of which he/she can express his/her attitude, helping to recognize mood, feelings, their change and variety in the content of the work. This dictionary is practically absent in children, but it is important to form it, based on the use of these words-images when characterizing the content of music, fine art, poetry, natural phenomena, accompanying the explanation of their meanings with examples from life, performance of fragments of musical compositions contrasting in content.

The well-known Russian psychologist, B.M. Teplov, noted that music can depict natural phenomena, specific images of reality, but at the same time it always expresses "feelings, emotions, moods", which is its content [19]. For example, one of the parts of the sixth "Pastoral" symphony by L.V. Beethoven is called "The Thunderstorm". Bass drums sound, timpani roar and flutes whistle depicting the flashing of lightning and thunder are heard, but this music (and this is important!) conveyed feelings of anxiety, anxiety, consonant with the picture of bad weather.

If the music made an impression on the child, he/she emotionally reacts to it (shows attention, concentrates, or, conversely, "makes" the rhythm of the music, involuntarily moves, barely noticeable fine motor movements or real movements are observed) [20]. These emotional responses are very important for experiencing and understanding musical imagery. L.S. Vygotsky wrote that "Art is the work of thought, but of a very special emotional thinking" [21].

Repetitive emotional reactions to music that convey images of nature, animals and birds, fairy-tale images and their awareness contribute to manifestations of persistent interest, the birth of an aesthetic attitude to music and the natural world, testifying to development of the foundations of musical, as well as ecological culture. If a child examines pictures with interest, depicting natural phenomena, the animal world, he/she accumulates experience in the value artistic perception of painting, and, at the same time, the experience of ecological representations formed on the perception of artistic images of art; first of all, emotional responsiveness and assessments appear, which are gradually interpreted as a positive emotional and evaluative attitude to the world of ecology and to the art of painting that is expressed in the need for drawing, creative independent manifestations are born, which indicates formation of the foundations of artistic and ecological culture.

The artistic perception of poetic images of nature, images of animals in fairy tales develops in a similar way, especially if they are sounded by classical music (medecloation, musical fairy tale games). These impressions are also aimed at formation of artistic and ecological culture in children, formation of moral and aesthetic consciousness, love and interest in works of art and real objects of the natural world.

Analysis of philosophical, cultural, psychological, art history, pedagogical research (M.S. Kagan, L.S. Vygotsky, N.A. Vetlugina, B.T. Likhachev, E.V. Nazaikinsky, B.M. Teplov) makes it possible to single out the following components as mechanisms for formation of the foundations of musical, artistic, moral-aesthetic, ecological, general culture, in their close interrelationships in preschool children:

- accumulation of experience of aesthetic perception of nature, cultural values and its transfer to life practice;
- positive emotional assessment, emotional responsiveness;
- awareness of their impressions, manifestation of an emotional, evaluative, value attitude;
- manifestation of creative activity, creative imagination in various types of artistic and aesthetic activities;
- transfer of accumulated ideas into life practice.

If a child empathizes with a work of art, feels the beauty of nature, he/she is able to express his/her impressions in words, creative musical, artistic activity, accumulates the experience of emotional responsiveness to beauty, making it his/her cultural heritage in various fields of culture (musical - artistic - moral and aesthetic - ecological - general).

O.P. Radynova carried out an experimental study based on the Musical Masterpieces program she created [22], in which the developed method of developing the musical perception of 6-7 years old children was tested through the characteristics of mood changes in the work using figurative speech, the "dictionary of emotions". Methods of contrasting comparisons, assimilation to the character of music (verbal, motor, polyartistic, intonational, instrumental), the explanation of new word-images using examples from the life of children, methods of dialogue, collective creativity, play methods - a musical fairy tale game, and etc.) were used.

It has been proved that distinguishing the change of feelings and moods expressed in a work leads to an understanding of its *meaning* - the "sensory program of a musical work", expands figurative speech, a vocabulary of emotions and enriches children's ideas about human feelings that exist in real life, manifestations of emotional responsiveness to phenomena of nature, ecological views.

The program is aimed at formation of a value concept of the world of nature and animals, which is carried out using emotionally colored, different in content, contrasting in moods works of musical classics.

The Musical Masterpieces program presents the themes "Nature and Music", "Music Tells About Animals and Birds", "A Tale in Music", "Moods, Feelings in Music".

Since culture is "appropriated" by a person, if cognitive activity is based on value content and is associated with creative activity and communication (M.S. Kagan), a system of attitudes was necessary to implement this approach:

- a *axiological* attitude aimed at development of emotional responsiveness, aesthetic emotions in the process of perceiving the values of artistic culture;
- a *cognitive* attitude, aimed at comprehending, distinguishing and understanding the beauty of artistic images of nature in art and their connection with life;
- a *creative* attitude aimed at expressing emotionally conscious impressions in creative activity - a figurative word, musical and rhythmic improvisations, composing their own melodies in the character of a value standard, orchestration, musical theatrical activities, drawing images of nature, and etc.

The Russkoe Slovo Publishing House has published the Program of O.P. Radynova "A child in the world of beauty" [23] and the methodological manual of the authors - O.P. Radynova, N.V. Barysheva and Yu.V. Panova "We Listen and Draw Music": four albums for children 3-7 years old, in which the theme "Nature" is widely represented [24]. The albums contain reproductions of paintings by great artists, as well as musical fragments of classical works, and poems that are close to them in emotional content. A short conversation about these works and the task of the child to draw his/her picture of nature under the impression of high standards of art is offered.

L.S. Vygotsky emphasized the most important regularity - the influence of the emotional factor on the combining fantasy, which psychologists call the law of the general emotional sign. "The essence of this law boils down to the fact that impressions or images having a common emotional sign, i.e. those that produce a similar emotional impact on us tend to unite with each other" [25]. This law is directly related to the possibility of integrating arts based on the proximity of emotional content, as well as the transfer of vivid artistic impressions to life phenomena.

Experimental study has shown that children began to transfer the experience of perceiving music to life situations gradually, their ideas about human feelings that exist in real life expanded, the "dictionary of emotions" was replenished, and a persistent interest in music and visual activity appeared. Children drew elements of scenery, costumes, in preparation for matinees, expressively pronounced the lines of their characters in musical fairy tales.

Polyartistic assimilation was also used, with the leading role of music. Children drew musical images, played musical fairy tale games, voiced by musical images similar in character to the characters of the fairy tale, musical and theatrical activities were used at festive matinees.

L.S. Vygotsky wrote: "If music does not directly dictate the actions that should follow it, then all the same depends on its main action, on the direction that it gives to psychological catharsis and what forces it will give to life, what it will release, and what will push back into the depths" [26].

It is music, by virtue of the specificity of its emotional content, that has become the core of musical and artistic activity, the integration of arts, in various forms of arranging children's activities - in the classroom, cognitive entertainment, festive matinees.

Here is an example: in works about nature, for example, the song by E. Tilicheyeva "Birch" ("The beauty of the birch tree glows silver") to the words of P. Voronko, it is sung that the goats "began to bend the birch, and the birch went into tears". Tears of a birch tree are amazingly conveyed in the music by slow drops in a high register. This artistic image is humanized and evokes vivid empathy reactions in children. There is a transfer of emotions

from the artistic image into life – the emergence of feelings and ideas of the child that the birch is alive, that it must be protected.

This example illustrates the possibilities of art influence on formation of the ecological culture foundations in children, the connection between life and art.

The conducted study limits the possibilities of studying the mechanisms of transferring the emotional-value experience accumulated in the process of perceiving works of art into the activity of mastering ecological behavior in nature. However, the data obtained in the study of music perception by children make it possible to expand the boundaries of study into development of value and activity components in the structure of the ecological culture of preschool children.

4 Conclusions

The philosophical concept of "appropriation" of cultural values by a person is considered in detail in the works of M.S. Kagan. According to the philosopher, the future of mankind does not depend on the level of its education and application technology, but on those "value attitudes that determine the direction of the practical application of knowledge" [27]. The issues of early ecological education are especially relevant at the present stage of human society development. Formation of ecological culture as a value attitude of a person to nature is developed in preschool age, when emotional and value experiences have a personal meaning. Musical art enriches the experience of feeling, the images of nature reflected in music, evoke in children emotional responsiveness to the beauty of consonances that convey fragility and strength, the uniqueness of the harmony of sounds and colors of nature and its phenomena, cause the need to preserve and increase the natural wealth of their native land. Developing in preschool age, the emotional-value content in the structure of the child's ecological culture sets the vector in formation of all its components in the future personality development.

References

1. B. T. Likhachev, *Pedagogy*, **2**, 19-23 (1993)
2. N. A. Chikildina, *Formation of the ecological culture of schoolchildren in the conditions of the educational and industrial complex*, 190 (2004)
3. Federal State Standards for Preschool Education, 3 (2014)
4. A. V. Zaporozhets, *Emotional development of a preschooler*, 8-29 (1985)
5. N. A. Ryzhova, *Our home is nature: a program of environmental education for preschoolers*, 20 (1998)
6. N. F. Vinogradova, O. A. Rydze, *Implementation of the requirements of the standard in the study of the subject "The world around": from substantive actions to universal ones* (Pedagogical University "September First", 2014)
7. I. D. Zverev, *Ecology in Schooling*, 96 (Knowledge, 1980)
8. T. N. Melnikov, A. S. Moskvina, I. I. Komarova, A. L. Tretyakov, *Ecological education of preschool children*, 80 (MGOU, 2018)
9. N. N. Kondratyeva, *Environmental Education Program for Children "We": The ABC of Ecology*, 140 (1997)
10. P. G. Samorukova, *How to acquaint preschoolers with nature*, 207 ("Education", 1983)
11. S. N. Nikolaeva, *Methods of ecological education of preschoolers*, 184 (Academy, 2001)

12. N. A. Ryzhova, *The OMEP Ireland Journal of Early Childhood Studies*, **10**, 51–69 (2016)
13. A. N. Zakhlebny, E. N. Dzyatkovskaya, *Environmental education: before school, at school, outside of school*, **3**, 3-8 (2007)
14. D. S. Ermakov, I. D. Zverev, I. T. Suravegina, *Learning to solve environmental problems*, 112 (Moscow: Shkolnaya Pressa, 2006)
15. N. G. Kuprina, *Ecological and aesthetic approach in the artistic education of children*, 361 (2008)
16. V. G. Kezin, *Formation of the ecological culture of the personality of younger adolescents in the pedagogical process of the school by means of musical art*, 252 (1998)
17. L. S. Vygotsky, *Psychology of art*, 313-314 (Azbuka, 2016)
18. L. S. Vygotsky, *Imagination and creativity in childhood*, 15 (Soyuz, 1997)
19. B. M. Teplov, *Psychology of musical abilities*, 6 (Nauka, 2003)
20. B. M. Teplov, *Psychology of musical abilities*, 216-217 (Nauka, 2003)
21. L. S. Vygotsky, *Psychology of art*, 61 (Azbuka, 2016)
22. O. P. Radynova, *The program "Musical Masterpieces" (a series of books): "Moods, Feelings in Music", "Song, Dance, March", "Music about Animals and Birds", "Nature and Music", "A Tale in Music", "Musical Instruments"*, M., Shopping Center "Sphere" (2019)
23. O. P. Radynova, *"A child in the world of beauty", The program of artistic and aesthetic development of preschoolers* (2021)
24. O. P. Radynova, N. V. Barysheva, Yu. V. Panova, *We listen and draw music* (Russkoye Slovo, 2020)
25. L. S. Vygotsky, *Imagination and creativity in childhood*, 13 (SPb.: Soyuz, 1997)
26. L. S. Vygotsky, *Psychology of art*, 313 (Azbuka, 2016)
27. M. S. Kagan, *Selected works in seven volumes*, **3**, 672 (2010)