Environmental Awareness of 5-Year-Old Preschool Children Concerning Aesthetic Value*

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Abstract

The aim of this study is to determine the environmental awareness of 5-year-old preschool children in terms of aesthetic value. A case study, one of the qualitative research methods, was used in the study. The study group consists of 40 preschool children aged 5, attending kindergartens in the city center of Sivas during the 2021-2022 academic year. The children who participated in the study were selected using the criterion sampling method, which is one of the purposeful sampling techniques. A semi-structured interview form was used to collect the data, which were then analyzed through content analysis. The results showed that the children mostly associated the concept of the environment with natural elements such as nature, plants, and forests. The children stated that for the environment to be considered beautiful, natural elements like forests/trees, flowers, and the sky should be present. Furthermore, it was found that the children preferred to see living spaces and natural environmental elements in the city they would like to live in. Upon analyzing the research results, it was concluded that the children desired to redesign their own rooms. The study revealed that children were most disturbed by visual pollution and least disturbed by air pollution as forms of environmental pollution. In conclusion, it is recommended to adopt a multidisciplinary approach, incorporating the opinions of various professional groups, when designing spaces for children.

Keywords: Aesthetics, Value, Environment, Environmental Awareness.

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It is known that the early childhood period is a critical time during which children develop interest, awareness, and value judgment skills towards the environment. Therefore, it is considered important to begin environmental education activities at an early age. Due to concerns about the increase in environmental pollution, preschool and primary school programs have started to include activities that support children's environmental awareness (Gökçe, Kaya, Aktay, & Özden, 2007). Because individuals with environmental awareness and knowledge are expected to be more sensitive to the environment (Artvinli & Demir, 2018).

Aesthetics is a discipline that questions and focuses on art, works of art, beauty, and the relationship between art and nature (Karabulut, Bilirdönmez, & Ayduslu, 2010). Aesthetic value provides mutual benefits to the individual and society by aiming to understand the existing culture, tastes, feelings, and thoughts of society while developing children's ideas about what is beautiful (Mazman-Budak, 2012). From this perspective, it can be concluded that aesthetic value contributes to an individual's understanding of their own culture and the adoption of other values within society (Kuşcuoğlu, Aladağ, & Kuzgun, 2017).

People are expected to gain awareness of the aesthetic environment through environmental education. Through this training, children internalize aesthetic values and make them a part of their personality over time. As a result, individuals who are sensitive to environmental aesthetics and feel responsible for the environment will be raised, making the world a more livable place. When talking about the aesthetic environment, it is not just limited to parks, streets, buildings, gardens, etc., within an individual's living space. For a long time, it has been understood in this way, leading to the neglect of many societal values (Erinç, 2004; Cited in Olgun, 2019).

A child who develops the ability to view their environment aesthetically creates a life discipline for themselves due to their aesthetic feelings' desire to see beauty. With aesthetic education, the individual can freely express their feelings and thoughts (Gültekin, 2011). When children's aesthetic development is not sufficiently supported, their desire to see beauty will gradually decrease, and they will become adults who do not value aesthetics and seek beauty only in works of art (Startwell, 1995; Cited in Özbal, 2017).

In the Preschool Education Programme (Ministry of National Education [MoNE], 2013), there is one outcome, and three indicators related to the concept of aesthetics:

Outcome 13: Protects aesthetic values.

Indicators:

Describes the beautiful and disturbing situations he/she observes around them.

Organizes the environment in different ways.

Appreciates the beauty in the environment.

Children should be given the opportunity to express their opinions on what can be done to protect the beauty they see in both their natural and artificial environments, and to make changes in their surroundings. Additionally, children's learning processes should be adjusted to help them organize their immediate surroundings in an aesthetic way (MoNE, 2013).

The aim of this study is to determine the environmental awareness of 5-year-old preschool children in terms of aesthetic value. In the study, answers will be sought to the following sub-problems:

What are the children's aesthetic perspectives towards the natural environment?

What is the children's aesthetic perspective towards the artificial environment?

What is the children's aesthetic perspective towards their own environment?

Method

In this section, the research model, study group, data collection tools, data collection and analysis methods are presented.

Research Model

In the research in which the environmental awareness of 5-year-old preschool children in terms of aesthetic value was examined, a case study from qualitative research methods was used. A case study is a research method in which the researcher collects detailed information about a situation or multiple situations within a certain time frame through various means and develops themes based on these situations (Creswell, 2013). Qualitative research is defined as a research method that follows a qualitative process using one or more techniques such as interviews, observations, and document analysis, which involves a realistic and holistic approach to events and perceptions in their natural environment (Yıldırım & Şimşek, 2008).

Study Group

The study group of the research consists of 40 five-year-old preschool children attending kindergartens in the city center of Sivas during the 2021-2022 academic year. The 5-year-old preschool children who participated in the study were selected through criterion sampling from the purposeful sampling method. The basis of criterion sampling is the study of situations that meet certain criteria set or predetermined by the researcher (Yıldırım & Şimşek, 2008). The criterion was that the children participating in the study were 5 years old and had the necessary cognitive skills to perceive the environment. A parental consent form was obtained from the parents of each child participating in the study. Additionally, the study was conducted after obtaining the necessary permissions from the Ministry of National Education. Participants were coded as Ç1, Ç2... Ç40, where "Ç" stands for child.

Data Collection Tool

The interview technique was used to collect the data for the research. A semi-structured interview form was used as the data collection tool. A semi-structured interview is a technique that determines how to collect data using pre-planned questions and provides the researcher with the opportunity to obtain detailed information during the interview (Karasar, 2009). In the semi-structured interview form, personal information (such as gender, age, etc.) of the children was first asked. Then, while creating the questions for the interview form, attention was paid to avoid directive expressions, select words that children could understand, ensure the absence of expressions that could violate the children's personal rights, and include open-ended expressions instead of closed-ended questions.

Analyze of Data

In order to collect the data, the necessary permissions were obtained from the Ministry of National Education, and the principals and teachers were informed about the importance and scope of the study. Then, under the guidance of the teachers, the children were introduced to the study, and efforts were made to ensure they felt comfortable throughout the process. A parental consent form was sent to the parents of the 5-year-old children. The children whose parents consented were interviewed one-on-one in a quiet classroom or counseling room at the school, and the data were audio-recorded.

The data were checked before being analyzed. In analyzing the data obtained from the semi-structured interview forms, statistical procedures were first applied to the questions asked to gather information about the children. The data obtained at the end of the research were subjected to content analysis. In content analysis, related data are grouped together and interpreted within the framework of specific concepts and themes (Neuman, 2012; Yıldırım & Şimşek, 2008). In this context, the interview documents were transcribed by thoroughly reading them and taking necessary notes. Then, the interview documents were coded, and categories and themes were developed from these codes. To increase the validity and reliability of the study, the researchers analyzed and compared the data independently. Additionally, expert opinions were sought during the data analysis process. In the final stage, the analyzed data were interpreted and presented in tables under the "Findings" section using direct quotations.

Findings

In this part of the study, the findings and interpretations related to the problem, 'What is the environmental awareness of 5-year-old preschool children concerning aesthetic value?' are presented.

The answers provided by the children were categorized into themes, categories, and codes, and presented in tables.

Table 1
Beautiful Environment

Category	Codes	Example expressions
	Flower (N=32)	It would be full of flowers (Ç8).
	Forest\Tree (N=30)	I would like to have pine trees and trees with many leaves (Ç35).
	Animal (N=20)	There should be animals, butterflies, cats, lions (Ç18).
Natural Environment	Plants Other Than Flowers/Trees (N=18)	For example, I really enjoy planting beans. Then, they grow like this, and we water them. When they grow, they are beautiful (Ç27).
	Sky (N=12)	*Must be a rainbow (Ç21).*
	Sea/Streams (N=8)	*... must be a very big river (Ç24).*

	Nature (N=6)	*In nature, must be nature (Ç29).*
	Leaf (N=3)	*Leafs .... (Ç3).*
Artificial Environment	Park (N=13)	*... or things, such as a colorful playground (Ç23).*
	Building (N=7)	*Homes, schools should be ..... (Ç24).*
	Pool (N=4)	*It must have a pool (Ç15).*
	Vehicle (N=2)	*Always full of cars (Ç22).*
Consciousness	Environmental Cleanliness (N=18)	*It should not be dirty. The environment is polluted by the gases from the cars (Ç28).*
Colouring	(N=16)	*I'd paint. I'd make the world pink, I'd make it red. I'd paint the trees, I'd paint them green, I'd paint them pink. I'd paint all the houses black. I'd paint them more red, yellow, and pink (Ç3).*
Beautiful	(N=13)	*It must be beautiful. It must be something beautiful (Ç32).*
Decoration	Decorating With Plants (N=3)	*I would decorate it with flowers (Ç16).*
	Decorating With Ornaments (N=3)	*... then let me think about it; I would decorate it (Ç25).*
	Decorating By Making Patterns/Hanging (N=3)	*I used to draw a picture of a butterfly, cut around it, and decorate it. I applied glue on the back of the butterfly and glued it (Ç27).*
	Decorating With Everything (N=3)	*I wanted to decorate it with everything so that the environment would be beautiful (Ç39).*
Happiness	Environments Where They Feel Happy (N=6)	*For example, it has to be huge (Ç4).*
Lighting	(N=3)	*there would be lamps (Ç17).*

In Table 1, 8 categories were formed for the theme 'Beautiful Environment': 'Natural Environment', 'Artificial Environment', 'Consciousness', 'Beautiful', 'Colouring', 'Decorating', 'Happiness', and 'Lighting'.

In the 'Natural Environment' category, 32 children expressed their opinions as 'Flower', 30 as 'Forest/Tree', 20 as 'Animal', 18 as 'Plants other than Flower/Tree', 12 as 'Sky', 8 as 'Sea/Streams', 6 as 'Nature', and 3 as 'Leaf'. Based on these opinions, 6 codes were formed. In the 'Artificial Environment' category, 13 children expressed their opinions as 'Park', 7 as 'Building', 4 as 'Pool', and 2 as 'Vehicle'. In the 'Colouring' category, 16 children expressed their

opinions, 13 as 'Beautiful', and 3 as 'Lighting'. In the 'Happiness' category, according to the opinions of 6 children, the codes 'Environments where they feel happy' were formed. In the 'Consciousness' category, 4 children expressed opinions related to 'Environmental cleanliness'. In the 'Decorating' category, 3 children each expressed their opinions as 'Decorating with plants', 'Decorating with ornaments', and 'Decorating by making patterns/hanging', while 2 children expressed their opinions as 'Decorating with everything'. Based on the findings, it can be said that the reason children want natural elements, such as trees and flowers, in their environment is because they believe that children will be happier in a natural setting. Expressions of children's opinions are provided in the table.

Table 2
Building Beautification

Category	Codes	Example expressions
Decoration	Decorating With Plants (N=12)	*I used to put flowers in front of the balconies (Ç15).*
	Decorating By Making Patterns/Hanging (N=8)	*.... We'll make it pretty with a star or a heart or something (Ç4).*
	Decorating With Ornaments (N=5)	*... we also decorate our house with balloons and decorations (Ç16).*
	Decorating With Lights (N=4)	*.... We can put up lights (Ç10).*
	Decorating With Glitter (N=3)	*Buildings could be made beautiful by adding glitter (Ç11).*
	Decorating With Everything (N=3)	*I would like to decorate with all kinds of things (Ç39).*
	Decorating With Sculpture (N=2)	*If there was a sculpture on it (Ç8).*
Colouring	(N=32)	*I would like to paint it. I would paint it in every colour because it looks more beautiful that way (Ç15).*
Designing	Designing The Exterior Of The Building (N=10)	*I would put a terrace on the roof of the buildings so that it wouldn't get wet (Ç20).*
	Garden Design (N=9)	*I would create a garden there, plant flowers, and put apple trees next to it (Ç29).*
	Designing The Interior Of The Building (N=5)	*Also, it is beautiful when you cover it with glass (Ç1).*
Cleaning	(N=3)	*We need to clean it. It needs to be clean (Ç25).*
Animal	(N=3)	*It would be nice if they were full of animals (Ç6).*

In the 'Building Beautification' theme in Table 2, 6 categories were formed based on the children's responses: 'Colouring', 'Decorating', 'Designing', 'Cleaning', 'Beautiful', and 'Animal'.

The category 'Colouring' was formed based on the opinions of 32 children, while 'Cleaning' and 'Animal' categories were formed based on the opinions of 3 children each. The category 'Beautiful' was formed based on the opinions of 2 children. In the 'Decorating' category, 4 children reported 'Decorating with lights', 12 children reported 'Decorating with plants', 5 children reported 'Decorating with ornaments', 2 children reported 'Decorating with sculptures', 8 children reported 'Decorating with patterns', 3 children reported 'Decorating with everything', and 'Decorating with glitter'. Based on these opinions, 7 codes were created. In the 'Designing' category, 9 children expressed their opinions as 'Designing a Garden', 10 children as 'Designing the Exterior of the Building', and 5 children as 'Designing the Interior of the Building'. Based on the findings, the majority of children perceive the buildings around them as beautiful. It can be said that preschool children like the buildings they see around them, but they do not find them aesthetically perfect or exactly as they would like. Expressions of children's thoughts are provided in the table.

Table 3
Classroom Organisation

Category	Codes	Example expressions
Decoration	Decorating By Making Patterns Or Hanging (N=13)	*I would paint Spiderman on the walls (Ç18).*
	Decorating With Ornaments (N=12)	*I would create party decorations or put up balloons (Ç23).*
	Decorating With Plants (N=11)	*I would decorate it with flowers, roses, and other decorations (Ç34).*
	Decorating With A Variety Of Items (N=3)	*I would like to decorate with all kinds of things (Ç39).*
	Decorating With Glitter (N=2)	*I would make the classroom walls sparkly (Ç11).*
Designing	Designing By Buying Or Changing New Items (N=16)	*Then I would get new seats, nice toys, and so on. For example, I would buy a small desk (Ç29).*
	Designing By Changing The Places Of Things (N=9)	*There, I changed the location of the toys, etc. I changed the location of the computer and the cabinets (Ç2).*
	Exterior Design (N=4)	*..... I would make a roof, I would make a playground (Ç6).*
	Organising The Space (N=1)	*I wanted to arrange everything properly, always (Ç5).*
Colouring	(N=22)	*I would make it colorful; for example, I would paint the walls yellow, green, red, and blue (Ç9).*
Lighting	(N=6)	*I would place decorative elements on the walls and hang colored lights from them (Ç35).*

In Table 3, based on the answers given by the children in the 'Classroom Arrangement' theme, 4 categories were formed: 'Colouring', 'Decorating', 'Designing', and 'Lighting'.

In the 'Designing' category, 9 children expressed their opinions as 'Designing by changing the places of items', 16 children as 'Designing by buying/changing new items', 4 children as 'External design', and 2 children as 'Organizing the environment'. In the 'Decorating' category, 11 children expressed their opinions as 'Decorating with plants', 12 children as 'Decorating with decorations', 3 children as 'Decorating with everything', 13 children as 'Decorating by making patterns/hanging', and 2 children as 'Decorating with glitter'. Based on these opinions, 5 codes were created. The 'Lighting' category was formed based on the opinions of 6 children, and the 'Colouring' category was formed based on the opinions of 22 children. Expressions of children's opinions are provided in the table.

Table 4
Pollution

Category	Codes	Example expressions
Visual Pollution	(N=26)	*I feel very uncomfortable when I see trees being cut down (Ç12).*
Soil Pollution	(N=24)	*It bothers me to see cigarette butts, cookie wrappers, juice cartons, and plastic bags. Also, when drinks are empty, people throw them on the ground, and that bothers me (Ç11).*
Other	Animals (N=11)	*For example, I don't like wolves or sharks. Snakes can harm cats. I also don't like spiders in the garden (Ç1).*
	People (N=5)	*Thieves and bad people (Ç26).*
Noise Pollution	(N=12)	*It bothers me when the noise becomes too loud (Ç13).*
Water Pollution	(N=5)	*Pouring dirty water into the river (Ç31).*
Odour Pollution	(N=4)	*For example, when we were driving, a garbage truck came in front of us. It was full of rubbish. I feel very uncomfortable when I smell it (Ç27).*
Air Pollution	(N=3)	*I don't like car exhaust fumes because they make it hard for animals to breathe. I feel uncomfortable because of car exhausts (Ç18).*

In Table 4, in the 'Pollution' theme, 26 children reported 'Visual Pollution', 22 children reported 'Soil Pollution', 12 children reported 'Noise Pollution', 3 children reported 'Air

Pollution', 4 children reported 'Odour Pollution', 5 children reported 'Water Pollution', and 16 children reported 'Other'. Based on these responses, 7 categories were formed in total. Expressions of children's thoughts are provided in the table.

According to the findings, it can be said that children characterize situations they find uncomfortable to see in their environment as pollution.

Table 5
City they want to live in

Category	Codes	Example expressions
Living Space	Building (N=19)	*The houses were made of sugar. I want sugar houses. They'd be beautiful houses (Ç22).*
	Urban Planning (N=11)	*I would like to have a cycling area (Ç2).*
	Playgrounds (N=9)	*I would build an amusement park for fun, and I would set up a park with a trampoline (Ç18).*
	Vehicles (N=9)	*There would be cars, tow trucks, pick-up trucks, lorries, and diggers (Ç3).*
Nature	Tree (N=10)	*There would be strawberry plants, watermelon vines, pear trees, and chestnut trees (Ç38).*
	Flower (N=10)	*There would be many colourful flowers (Ç11).*
	Animal (N=4)	*There would be big animals (Ç17).*
	Lawn (N=3)	*Of course, there should be a lawn in the city. I would like the lawns to be rainbow-coloured (Ç20).*
	Sky (N=2)	*There should be rainbows, clouds, rain, and sunshine (Ç20).*
	Sea (N=2)	*I wish there was a sea there (Ç24).*
Colouring	(N=18)	*I would like everything to be colourful. I wouldn't like it to be colourless. I would use every colour and paint everything with rainbow colours (Ç26).*
Beautiful	(N=16)	*I would like to live in a beautiful city (Ç2).*
Lighting	(N=5)	*Illuminated cities (Ç32).*
Decoration	(N=4)	*I would decorate with butterflies (Ç21).*
Consciousness	Environmental Cleanliness (N=2)	*I don't want rubbish and I don't want smoke, for example car fumes (Ç35).*

In Table 5, the opinions of the children on the theme 'The City They Want to Live In' are grouped into 7 categories: 'Colouring', 'Beautiful', 'Nature', 'Lighting', 'Living Space', 'Consciousness', and 'Decoration'.

The views of 18 children were grouped under the 'Colouring' category, 16 children's views under the 'Beautiful' category, 5 children's views under the 'Lighting' category, and 4 children's views under the 'Decoration' category. In the 'Consciousness' category, 2 children mentioned 'Environmental Cleanliness', and in the 'Nature' category, 4 children mentioned 'Animal', 10 children each mentioned 'Tree' and 'Flower', 3 children mentioned 'Lawn', and 2 children each mentioned 'Sky' and 'Sea'. When analyzing the children's opinions regarding the 'Living Space' category, 19 children expressed their opinions as 'Building', 11 children as 'Urban Planning', and 9 children each mentioned 'Playgrounds' and 'Vehicles'. Based on the findings, it can be said that children want to live in cities that are closely connected with nature, where they can move freely, and that are designed with their needs in mind. Expressions of children's thoughts are provided in the table.

Table 6
Room Organisation

Category	Codes	Example expressions
Designing	Designing by Buying\Changing New Items (N=18)	*I would change my bed, and I would have an Elsa picture on my blanket. I would change my table, and I would buy a very big one (Ç8).*
	Designing by Changing The Places Of Things (N=15)	*We have a white bookcase, and I would like to put it behind the door. Then, I would place our wardrobe in front of our beds and move the beds where the wardrobe is (Ç30).*
	Organising The Room (N=13)	*I would like to organise everything, including my bed and my toys (Ç3).*
Decoration	Decorating by Making Patterns\Hanging (N=12)	*I would hang a picture of Grandpa Moon upstairs, and it would hang down. I would make stars everywhere. Grandpa Moon would hang on a string like this (Ç34).*
	Decorating With Ornaments (N=11)	*I would like to put decorations in my room (Ç1).*
	Decorating With Plants (N=5)	*I would like to decorate it with flowers (Ç33).*
	Decorating With Everything (N=2)	*I would decorate my room with everything (Ç3).*
Colouring	(N=22)	*I would make every part of my room colourful (Ç31).*
lighting	(N=7)	*I would decorate my room with colourful lights. I would put colourful lamps in my room (Ç37).*
Nature	Plant (N=3)	*I would plant all kinds of plants in my room. I would like to have daisies (Ç28).*
	Animal (N=1)	*I would like to have a real cat (Ç20).*

In Table 6, the opinions of the children in the 'Room Arrangement' theme are grouped into 5 categories: 'Colouring', 'Decorating', 'Designing', 'Nature', and 'Lighting'.

When the children's opinions regarding the 'Designing' category were analyzed, 15 children mentioned 'Designing by changing the places of items', 18 children mentioned 'Designing by buying/changing new items', and 13 children mentioned 'Organizing the room'. In the 'Decorating' category, 12 children expressed their opinions as 'Decorating by making patterns/hanging', 11 children as 'Decorating with decorations', 5 children as 'Decorating with plants', and some children as 'Decorating with everything'. In the 'Nature' category, 'Plant' codes were created based on the opinions of 3 children, and 'Animal' codes were created based on the opinions of 1 child. 22 children expressed their opinions as 'Colouring' and 7 children expressed their opinions as 'Lighting'. Expressions of children's opinions are provided in the table.

Table 7
House they want to live in

Category	Codes	Example expressions
Designing	Designing With Object (N=12)	*There would be a television. There would be a sofa, a tablet and toys (Ç11).*
	Dimension (N=12)	*I would like to live in a big house. As big as a giant (Ç38).*
	Interior Design (N=9)	*I would like to have many rooms, two living rooms (Ç13).*
	External Design (N=7)	*My dream house is a Batman house, even the outside of it is Batman (Ç2).*
Colouring	(N=23)	*I would like to live in a colourful house. I would like to live in a blue, then yellow, then red, then green house (Ç23).*
Nature	Garden (N=12)	*I would like my house to have a garden (Ç19).*
	Plant (N=6)	*I would like to have yellow sunflowers (Ç30).*
	Animal (N=4)	*I would like to have animals. I would like to live in a house where I can keep them (Ç28).*
Beautiful	(N=20)	*I would like to live in a nice house, very nice. I would like to have a beautiful house (Ç3).*
Decoration	(N=12)	*I would put rabbits, dogs and cats on the walls of the house (Ç8).*
Lighting	(N=3)	*There would be lights. I would have a lamp with rainbow lights, and there would be lots of lights throughout the house (Ç20).*

In Table 7, 6 categories were formed for the theme 'The House They Want to Live In': 'Colouring', 'Beautiful', 'Decorating', 'Nature', 'Lighting', and 'Designing'.

The views of 22 children were grouped under the 'Colouring' category, 20 children's views under the 'Beautiful' category, 12 children's views under the 'Decorating' category, and 3 children's views under the 'Lighting' category. When the children's opinions in the 'Designing' category were analyzed, 12 children each expressed their opinions as 'Designing with objects' and 'Size', 9 children as 'Interior Design', and 7 children as 'Exterior Design'. In

the 'Nature' category, 12 children expressed their opinions as 'Garden', 6 children as 'Plant', and 4 children as 'Animal'. A total of 3 codes were created based on these opinions. According to the findings, it can be interpreted that children emphasize the concept of beauty because they want the house they wish to live in to be more aesthetically pleasing. Expressions of children's opinions are provided in the table.

Result and Discussion

It was concluded that, in order for the environment to be described as beautiful, children mostly emphasized 'Natural environment' elements, followed by 'Artificial environment' elements, 'Environmental cleanliness,' and 'Coloring.' Additionally, it was determined that the least emphasized aspect of a beautiful environment was 'Lighting.' Children stated that the beautiful environment should include 'Flowers' and 'Forest/Tree' among the natural environmental elements, in that order. Among the artificial environmental elements, it was concluded that 'Park' should be the most emphasized and 'Vehicle' the least emphasized for the environment to be considered beautiful. In a study, it was found that children wanted to have plants in their environment, and 54% of the children stated that they wanted to live in a green environment (Yardımcı and Bağcı-Kılıç, 2010). Özsoy (2012) analyzed the environmental perceptions of primary school students and found that children included natural environmental elements such as 'Human,' 'Animal,' 'Mountain,' 'Lake,' 'Sun,' and artificial environmental elements like 'House' and 'Factory' in their environmental drawings. It was observed that children most frequently drew 'Trees' in their drawings. In another study that investigated the environment and environmental problems from the perspective of primary school children, 45% of the participants stated that garbage should be thrown into the garbage bin (Yardımcı & Bağcı-Kılıç, 2010). In the study by Halmatov, Sarıçam, and Halmatov (2012), where 6-year-old preschool children living in 3 different regions drew pictures of the environment they wanted to live in and answered some questions, children living in the Marmara region especially wanted houses with gardens featuring 'Trees,' 'Flowers,' 'Balloons,' 'Kites,' and 'Slides.' Children from low socio-economic backgrounds drew 'Big house,' 'Garden,' 'Pool,' 'Playground,' and 'Toys' in their pictures. Upon reviewing the literature, it was concluded that, similar to this study, children's environmental perceptions were primarily focused on the 'Natural environment.

Children stated that the buildings they see around them should be 'Decorated' to make them more beautiful. It was then concluded that they wanted the buildings to be 'Coloured' and 'Designed,' in descending order of importance. Additionally, the least emphasized aspects were that they wanted 'Cleaning' and 'Animals' to beautify the buildings. Mertol and Zorlu (2015) divided children into 5 different groups and asked them to design the city of their dreams. Children in the first group stated that they wanted more colourful and uniquely designed buildings and cities.

In this study, it was concluded that 'Decorating' was the most important change children wanted to make in their classrooms. Subsequently, it was determined that they wanted to 'Design' and 'Colour' their classrooms, in that order. It was concluded that 'Lighting' was the least emphasized aspect. Similarly, Özer-Kocamanoğlu and Acer (2015), in a study conducted to determine the aesthetic appreciation judgments of preschool children aged 5-6 years, found that children's aesthetic value judgments increased when their classrooms were

beautified with objects. In their study, İsmailoğlu and Yılmaz (2019) found that girls wanted their classrooms to be 'big,' 'full of toys,' and 'ornate,' while boys wanted their classrooms to be 'big,' 'full of toys,' and 'shaped.' Additionally, almost all children stated that they enjoyed spending more time in the garden. In Canoğlu and Geçimli's (2020) study on children and space perception, when children were asked to draw the school they attended, they expressed discomfort with the 'Colour,' 'Lighting,' and some objects in the school. This suggests that children want to make changes in their classrooms. In another study, almost all of the children liked the colours in the kindergarten, but 80% stated that they would feel happier if their classroom were painted in the colour of their choice (Yalvaç, 2018). Similarly, in another study, it was found that the colours in the classroom influenced children's perception of space, and that children preferred classroom environments painted in warm colours (Güller & Kaya, 2016).

In this study, it was concluded that the environmental issue that disturbed children the most was 'Image pollution.' Additionally, the study found that children were disturbed by 'Soil pollution' and 'Noise pollution,' in that order. The study also concluded that some children were disturbed by seeing 'Humans' and 'Animals.' Regarding pollution, it was found that they emphasized 'Air pollution' the least. Littledyke (2004) found that approximately half of the 5-year-old children were concerned about 'Air pollution,' 'Soil pollution,' and 'Environmental pollution.' In another study, children mentioned that environmental problems were mostly caused by humans (such as garbage and exhaust gases) (Yardımcı & Bağcı-Kılıç, 2010). Yalçınkaya and Çelikbaş (2013) investigated children's approach to solving environmental problems and found that, based on the data obtained from students, the most recognized environmental problems were 'Air pollution,' 'Water pollution,' and 'Image pollution,' with 'Noise pollution' being the least recognized. In the study conducted by Akkurt-Çağlar (2017), children identified 'littering' as the most important factor contributing to environmental problems. Saz, Osmanpehlivan, Demir, and Bay (2020) examined preschool children's perception of environmental pollution and found that children generally depicted soil pollution in their drawings, while almost never mentioning water and air pollution. In contrast to the results of this study, Özsoy (2012) found that children emphasized issues such as 'air pollution,' 'soil pollution,' 'water pollution,' and 'urban problems' in their drawings of polluted environments.

Children mostly want to see 'Living spaces,' such as 'Buildings' and 'Playgrounds,' in the city they want to live in. Additionally, it was concluded that the majority of children would like to see 'Natural Environment' elements, such as 'Trees,' 'Flowers,' and 'Animals,' in the city they envision. Approximately half of the children stated that they wanted the cities to be 'Colourful' and 'Beautiful.' It was found that children emphasized the 'cleanliness of the city' the least for the city they wanted to live in. In a study, when children were asked to draw the environment between their home and school, the majority used artificial environmental elements like 'buildings,' while very few included natural elements like 'trees' and 'flowers' in their drawings (Özgece, Edgü, & Taluğ, 2015). Similarly, in a study by Çakırer-Özservet (2019), where children were asked to draw the street in their imagination, it was found that children mostly drew 'Trees,' followed by 'Lakes,' 'Rivers,' 'Flowers,' and 'Birds' as natural elements in their drawings. Additionally, about half of the children included playgrounds in their

drawings. It was also noted that there were few 'human' figures in the children's drawings overall. In their drawings, children depicted artificial environmental elements such as 'houses of relatives and friends,' 'grocery stores,' and 'hospitals' on the streets. In another study by Özsarı and Güngör-Aytar (2019), where children were asked to draw pictures of their dreams, it was found that children living in urban environments mostly drew the 'Sun,' while children living in rural environments drew 'Clouds.' Additionally, the majority of girls living in urban areas wanted the city of their dreams to have a 'tree made of candy,' 'animals,' and 'green areas,' while boys mostly wanted a 'lake/sea/stream made of chocolate,' followed by a 'car made of candy.' Girls living in rural areas wanted the city of their dreams to have a 'Park,' followed by a 'Tree,' while boys living in rural areas wanted the city of their dreams to feature a 'Park,' followed by a 'House with heating.' Additionally, the boys also wanted to have trees in the city they lived in.

When children were given the opportunity to make changes in their rooms, it was concluded that they wanted to redesign their rooms. It was also found that the majority of the children wanted to 'decorate' their rooms. About half of the participants expressed a desire to 'colour' their rooms. In a study by Çakmakçı-Yıldız (2019), which examined the relationship between children and space, children stated that they wanted to change the items in their rooms according to their own preferences. Ayvaz (2007) found that some children focused only on the design of their own rooms when designing a house. In a study where Baksi (2018) asked children to draw pictures of their rooms, it was found that some children included lighting elements in their drawings. Additionally, it was observed that female students drew lighting devices with more prominent colours than male students.

When children were asked what kind of house they would like to live in, it was found that more than half of them emphasized the design of the house. Some children expressed a desire for their ideal house to have a garden. More than half of the children wanted their houses to be 'colorful'. It was also found that half of the children wanted to live in a 'beautiful' house. In a study conducted by Canoğlu and Geçimli (2020), when children were asked to redesign their spaces in 3D, they designed their schools in 3D not only using artificial elements but also incorporating natural environmental elements. For example, one child placed shelters, which are animal habitats, in the space they designed. In another study investigating how children design spaces in virtual environments, it was found that some children paid attention to details while designing their own houses and included items such as carpets and curtains, commonly used in daily life. Additionally, some children designed their houses in geometric shapes different from the usual ones. Some children also focused on the exterior appearance of their houses in detail. In the study, some children created terraces, balconies, and gardens in the houses they designed and even built a pool in the garden they envisioned (Ayvaz, 2007). In his study, Çakırer-Özservet (2019) found that when children were asked to draw their own houses, most of them depicted their houses as single-storey detached homes.

Suggestions

Based on these results, the following suggestions can be made:

1. Involving children's opinions when planning the environment for preschool children,

2. Paying more attention to the decoration and lighting of spaces (classrooms, rooms, etc.) where children spend time,

3. Using more colors and natural elements when designing environments for children,

4. Extending the research by using different data collection techniques can also be suggested.

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Conflict of Interest

There is no conflict of interest in this study.

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Ethics Committee Approval

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