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OUR SCHOOL SHOULD BE FOR US: EARLY CHILDHOOD PHYSICAL LEARNING ENVIRONMENT

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Abstract

It is essential that administrators and teachers feel comfortable and happy in the school environment because teachers and administrators spend most of their time in schools. In addition, creating appropriate environments for the educational processes carried out in indoor and outdoor spaces in the school environment can also increase the quality of education. In this study, case study design, one of the qualitative research techniques, was used to determine the views of school administrators and teachers on the physical environment characteristics that should be present in the school building. The study was conducted in two independent kindergartens in Çankaya district of Ankara province. Seven participants, including three teachers, two school principals, and two assistant principals, were included in the study. A structured interview technique was used to obtain the data. The data obtained were analyzed using the content analysis technique. According to the results of the research, it was found that school administrators and teachers stated that there should be materials suitable for age groups, playgrounds, a restroom for teachers, natural light, spaciousness, a garden, the use of wooden materials, and the school building should not be more than two floors. According to another result of the research, teachers and administrators argued that there should be plants in the garden, plants can be grown, there should be areas and materials for children to play, there should be a resting area, it should be clean, animals can be fed and it should be large and spacious. In addition, teachers and administrators agree that light color tones should be used in schools, especially in interior spaces.

Keywords: *Learning environment, teacher, administrator, schoolyard, indoor, outdoor.*

1. Introduction

Well-organized preschools contribute positively to children's academic, literacy (Mashburn, 2008), cognitive, and social skills (Günindi, 2011; Peisner-Feinberg et al., 2001; Ramazan & Özdemir, 2020). The key elements of adequate early learning spaces include a simple, inviting atmosphere, bright spaces, and outdoor connections (Berris & Miller, 2011). Classroom design should reflect the distinctive features of each learning center, provide ample space for movement, and include appropriate educational tools (Fardlillah & Suryono, 2019). According to Şenalp & Çınar's (2022) research, in line with the studies conducted in the literature, it is stated that it is important for a child-friendly preschool education institution to be accessible and close to green areas to have planting and playgrounds in its garden to be sheltered at the same time, and to have a large and spacious interior space. The lighting, ventilation, heating, and cleaning of the interior space are also important criteria, as well as the furniture in the classroom being portable, appropriate in color, easy to clean, flexible, and aesthetic, and the school building being single-storey for the safety of children. In Durmuşoğlu, Çelikel, & Bilgen's (2023) study, when the existing and imagined school environments for preschool education institutions were compared in the interviews with preschool teachers, it was determined that there were results such as the physical facilities of the existing environments were not suitable, there were no learning centers, there was no variety of materials, the park/garden area was insufficient, there were no different grounds, and there were no areas suitable for developmental areas.

When the current situation is examined, there are several deficiencies and inadequacies in standardization in the context of educational environments in preschool education institutions. Although there are common standard areas for preschool education within the framework of some regulations specified in the relevant legislation in Türkiye, it is thought that the definition of the standards and the details provided do not overlap in most places (Babaroğlu, 2018). Similarly, Babich et al. (2023) noted inconsistencies in standards across countries and over time and that more comprehensive approaches that simultaneously consider multiple indoor environmental quality factors are needed.

For preschool education institutions to provide quality education, they must first organize a quality educational environment, and it is essential that the administrators, who are the main ones responsible for this, and the teachers, who are the people who provide education, feel comfortable and happy in the school environment. This comfort and peace will enable them to express themselves better and may increase the effectiveness of the education. For all these reasons, the views of administrators and teachers should also be considered when shaping ideal school buildings because teachers and administrators spend most of their time here, both in terms of private and teaching. This study can contribute to a more productive time spent by teachers and administrators at school by giving an idea of how an ideal school building should be according to preschool teachers and administrators. This study aims to determine the views of school administrators and teachers working in preschool education institutions on the physical environment characteristics that should be present in school buildings.

2. Methods

2.1. Research design

A case study design, one of the qualitative research techniques, was used to determine the views of school administrators and teachers on the physical environment characteristics of preschool education institutions.

2.2. Research group

The study was conducted in two independent kindergartens in Çankaya district of Ankara province. A total of 8 people, including three teachers, two school principals, and two assistant principals, participated in the study. Five teachers were coded as T1, T2, and T3, and four school administrators were coded as SA1, SA2, SA3, and SA4. The number of administrators participating in the study was four (two female and two male), and the number of teachers was three female. Only one of the participants had a master's degree, and the other had a bachelor's degree. The participants' working years as teachers/administrators ranged from a minimum of two years to a maximum of 19 years. When it is examined how many different schools the teachers and administrators worked in until their last school, the number of schools varied from a minimum of three to a maximum of 11.

2.3. Data collection and analysis

A structured interview technique was used to obtain the data. The interview questions prepared by the researchers were edited and finalized after receiving the opinions of three field experts. The questions consisted of two parts. In the first part, there are questions about demographic information. In the second part, there are questions to determine the opinions of school administrators and teachers about the physical learning environment. The data were collected through interviews of approximately 10-15 minutes with volunteer participants and audio recordings. The opinions of the participants who did not consent to be audio recorded were recorded by taking notes during the interview. After the interviews were transferred to the computer and analyzed, they were analyzed using the content analysis technique. Similar codes were grouped under the same themes, and related sample statements were included.

3. Results

The results of the analysis of the opinions of teachers and school administrators on the key elements that should be found in the indoor and outdoor physical learning environment of school buildings are given in Table 1.

Table 1. Views of teachers and school administrators on the key factors to be found in the indoor and outdoor physical learning environment of the school building.

	Themes	Participants
Indoor	Security	T2, SA2, SA4
	Finding Materials Suitable for the Age Group	T1, SA1
	Availability of Playgrounds	T1,T3
	Availability of Workshops for Various Activities	T1, T3, SA2, SA3, SA4
	Natural Light	SA3, SA4
	Spacious School Building	T1,T2, SA1, SA4
	Having a Rest Room	T3, SA1
	Use of Wood Materials	T2
	Supporting Recycling	T2
	Light Tones Should Be Used	T1, T2, T3, SA1, SA2, SA3, SA4

	The building should not be multi-storey	T1, T3, SA2, SA3, SA4
	Having a Garden	T1, SA1, SA3
	Plant Cultivation	T2, T3, SA3, SA4
	Having Plants	T1, T2, T3, SA1, SA2, SA3, SA4
	Safety	T2, T3, SA2
	Availability of space and materials for children to play	T2, T3, SA1, SA3
Outdoor	Availability of Rest Area	T2
	Cleanliness	T2, SA2
	Animal Feeding	T2, SA4
	Light Tones Should Be Used	T1, SA1, SA2, SA3
	Each wall should be painted a different color	T3
	Cartoon Characters Should Be	T2, SA4
	Supporting Recycling	T2

According to Table 1, the themes identified by teachers and school administrators regarding the physical learning environments in the interior of school buildings include factors such as safety, availability of materials suitable for the age group, support for recycling, playgrounds, workshops for various activities, natural light, the width of the school building, rest room, use of wooden materials, and light colors. These themes stand out as important factors in the physical configuration of school buildings. The views of one teacher were expressed as follows:

T2: "It should be safe. Doors and windows should open outwards. There should be no stairs. Wooden materials should be used in the building. Fire precautions should be taken. Building materials should be well selected. Cables should not be in the middle. The heating tank should not be close to the classrooms. There should be no cutting materials in the building."

This view emphasizes the critical measures for the safety of school buildings and the potential impact of the materials used on the educational environment.

The themes of teachers and school administrators regarding the physical learning environments that should be present in the outdoor spaces of school buildings are not having many floors, having a garden, being able to grow plants, having plants, being safe, having areas and materials for children to play, having a recreation area, being clean, being able to feed animals, being large and spacious, using light colors, supporting recycling, having cartoon characters on the walls and painting them in various colors, supporting recycling. Sample statements regarding the participants' views on the outdoor physical features of school buildings are as follows:

T2: "There should be a large green area, animals. The park should be safe. Toys should be strong, and they should not break or harm children. There should be security in the garden. Plants and vegetables should be grown. There should be benches.. There should be a garbage bin for waste. There should be a sandbox and fruit trees."

The views of teachers and administrators on the suitability of school buildings for children with disabilities are presented in Table 2.

Table 2. Analysis of teachers' and administrators' views on the suitability of school buildings for children with disabilities.

Suitability of the building for children with disabilities	**Themes**	**Participants**
Suitable	Single Storey Building	T1, T2, T3, SA2
	Convenient Building Entrance	T1, T2
	Having a Support Education Room	T3
Not Suitable	Stairs at the Building Entrance	SA1
	Stairs inside the building	SA3, SA4
	Embossed Text and Lack of Visual Stimuli	SA3
	Multi-storey building	SA4

According to Table 2, when the opinions of teachers and administrators on the suitability of school buildings for children with disabilities were evaluated, and two categories were formed. These were named as opinions that the school building is suitable for children with disabilities and opinions that the school building is not suitable for children with disabilities. The participants who said the school building is suitable for children with disabilities explained that the building is one-storey. The entrance is without stairs, there is a disabled ramp at the entrance of the building for children with orthopedic disabilities, and there are support education rooms in the building where individual education can also be provided. The participants who said that the school building was not suitable for children with disabilities explained that there were stairs at the entrance of the building instead of a disabled ramp, there were many stairs in the

building, there were no embossed text and visual stimuli for visually impaired children, and the building was multi-storey.

A teacher who said that the school building was suitable for children with disabilities expressed her opinion in the following words:

T1: *"Our school building is one-story, the entrance is suitable for wheelchairs, and there are no stairs at the entrance. Therefore, it is suitable for the disabled."*

An administrator stated that the school building was not suitable for children with disabilities:

SA1: *"I don't think our school building is suitable for students with disabilities because we have a staircase, and a child using a wheelchair may have difficulty in this regard. Also, there are no applications for visually impaired or hard-of-hearing children. We only have children with learning difficulties. For them, our trained teachers come and take care of them."*

The views of teachers and administrators on the suitability of school buildings for children's health and safety are presented in Table 3.

Table 3. Analysis of teachers' and administrators' views on the health and safety of school buildings for children.

Theme	**Participants**
School being suitable for student health.	T1, T2, T3, SA1, SA2, SA3, SA4
Safety of the School Building	T1, T2, T3, SA1, SA2, SA3, SA

According to Table 3, when the opinions of teachers and administrators on the health and safety of school buildings for children were evaluated, it was seen that all teachers and administrators who participated in the research found school buildings safe and healthy. All participants also stated that school buildings are hygienic. Among the participants who thought the school building was safe, T3: *"Our school building is safe because there are not many stairs in our school."*

SA4, one of the participants who thought the school building was suitable for health: SA4: *"The environments are cleaned regularly in our school."*

4. Discussion and conclusion

The results of the study show that teachers and administrators emphasized the importance of safety, natural light, age-appropriate materials, designs that support recycling, multi-purpose workshops, and spacious areas in indoor spaces. In outdoor spaces, they emphasized extensive gardens, safe playgrounds, areas for growing plants, opportunities to interact with animals, and arrangements that support recycling. Similarly, according to Şenalp & Çınar's (2022) study, in line with the studies conducted in the literature, it was stated that it is important for a child-friendly preschool to be accessible and close to green areas to have planting and playgrounds in the garden, to be sheltered at the same time, and to have a large, spacious interior. The lighting, ventilation, heating, and cleaning of the interior space are also important criteria, as well as the furniture in the classroom being portable, appropriate in color, easy to clean, flexible, and aesthetic, and the school building being single-storey for the safety of children. According to another study, teachers and administrators argued that plants should be in the garden. A study conducted by Kılıç (2013) in preschool education institutions concluded that children wanted natural elements such as flowers, trees, soil, water, and sand in the school garden. According to Karasolak (2009), in his study conducted in primary schools, it was revealed that there were no creative playgrounds, sand and water playgrounds, or grass playgrounds in any of the school gardens included in the study. In short, instead of man-made materials such as asphalt and structured toys in school gardens, there is a need for elements that are found in nature and require exploring nature.

Different opinions were expressed about the suitability of school buildings for children with disabilities. While single-storey buildings, ramps, and support education rooms were positive; multi-storey buildings, stairs, and lack of stimuli for the visually impaired were among the important deficiencies. This indicates that school buildings should be designed with a more inclusive approach. Research also emphasizes that preschool education institutions should be single-story for the safety of children (Şenalp & Çınar, 2022).

According to the research results, the sine qua non of a school building is generally expressed as the school building being safe. In addition, the participants also mentioned that there should be security at the entrance of the building, the perimeter of the school should be surrounded by a high wall, doors and windows should open outwards, there should be no stairs, fire precautions should be taken, building materials should be well selected, cables should not be in the middle, the heating tank should not be close to the classrooms, there should not be any sharp materials in the building, toys should be firm and should not break and harm children. Similarly, Karaküçük (2008) found that garden security was inadequate,

window security was adequate, and fire safety was inadequate. In Çınar's (2022) study, preschool teachers stated that the factors that threaten security at school are the absence of a security guard, iron gates, and concrete in the garden instead of grass or soil. They also stated that pointed objects, wall edges, or objects such as honeycombs should be covered, cabinets should be fixed to the wall and should be the size of children, and electrical installations should be hidden or out of the reach of children. Studies have also emphasized that preschool education institutions should be constantly inspected regarding security (Mwoma, Begi & Murungi, 2018).

According to the study results, teachers and administrators determined that security is the most important element of an ideal school building. From this point of view, it is recommended that security personnel be placed in front of the school buildings and that the materials purchased and currently used in the school be reviewed in terms of security. The results show the importance of designing both the interior and exterior of school buildings to meet the diverse needs of children. More inclusive and sustainable designs will contribute positively to children's learning processes. At the same time, health and safety measures need to be integrated into procedures and the physical infrastructure.

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