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# The Outdoor Environment in Preschool Institutions: Play and Educational Activities in Kindergartens

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***Abstract***

*Early childhood experiences are crucial for children's development and their preparation for future challenges. Play-based learning, free play and outdoor play, significantly contribute to skill acquisition across all areas of development. Globally, play is integrated into preschool education programs and is recognized as a primary tool that supports learning in young children. Experts recommend that children spend at least one hour per day playing outdoors in natural environments. This study focuses on the outdoor environment and activities in preschool institutions. The sample consisted of N=332 teachers of children aged 3–6 years from public (N=248) and private (N=84) kindergartens in Tirana, Albania. The participants completed a quantitative questionnaire measuring aspects related to outdoor spaces and equipment, educational activities and play. The study aimed to identify important aspects related to the outdoor environment, the frequency of outdoor play and educative activities, and to examine the differences between public and private kindergartens regarding outdoor spaces and activities. The results indicated that various types of outdoor activities were conducted up to three times a week in kindergartens. Nature-oriented activities (M=5.51, SD=1.306) and hand-crafting with natural recyclable materials (M=4.31, SD=1.728) were the most frequent (two to three times a week). Play activities exploring the inanimate world (M=4.26, SD=1.877), and the living world (M=4.02, SD=1.829) were less often (once to twice a week). Comparisons between kindergartens revealed similarities in terms of outdoor spaces and equipment (t=-2.840, p>.005), but outdoor activities were more frequent in private kindergartens (t=-3.414, p<.005). In line with the findings, it can be concluded that the outdoor spaces and equipment in kindergartens were appropriate and diverse enough to support outdoor activities and play. Outdoor environments were utilized on a regular basis for educational activities and different types of play. The study identified some of the main outdoor activities in kindergartens, but did not determine the time spent on these activities or whether all children were involved. Consequently, considering the need for broader exploration of this area, further studies are recommended to measure the duration of outdoor activities in preschool throughout the academic year, their effects on children's development, and the time spent on free play, based on educators and parents' reports.*

***Keywords:*** *early childhood, education, children, teacher, kindergarten, play, outdoor, nature*

## 1. Introduction

### *1.1 Early Childhood Education and the Importance of Play*

Early childhood represents a critical period during which the foundations for future development are established. Preschool institutions play a vital role in shaping children's growth. Early childhood education prepares children for future tasks and challenges (Erdem, 2018). Educational activities in kindergartens help children develop psychomotor, cognitive, emotional, social, and moral skills (Zaragas and Pliogou, 2020). These domains are interconnected and cannot be viewed in isolation (Save the Children, 2010). High-quality education is associated with significant benefits for children's development, particularly for those from disadvantaged backgrounds (Melhuish et al., 2015).

To achieve long-term learning objectives, it is essential to enrich the environments and educational experiences provided in preschool institutions. Research indicates that learning is optimized when teaching quality and the physical characteristics of institutions are combined with rich opportunities for interaction and play between children, teachers, and peers (Howes et al., 2008). Play-based pedagogy is one of the most widely used educational methods worldwide (Ministry of Education and Sports, 2018). According to Article 31 of the Convention on the Rights of the Child: "Children have the right to rest and leisure, to engage in play and recreational activities appropriate to their age, and to participate freely in cultural and artistic life." (pp. 9).

Play is a natural activity that promotes physical, social, emotional, and cognitive well-being (Bento and Dias, 2017). It enhances creativity and social skills (Guirguis, 2018; Ashiabi, 2007), self-awareness, autonomy and self-esteem (Flannigan and Dietze, 2017). Outdoor and nature-based play, in particular, is crucial for children's development and offers numerous benefits. Contact with green spaces has been shown to reduce stress levels (Sando, 2019) and supports both physical and mental health (Rodriguez-Ayllon et al., 2019). Recent neuroscience research reveals that play impacts brain development, as it activates all brain regions, leading to adaptive changes at the cellular and behavioural levels (Loebach & Cox, 2020).

### *1.2 Major Approaches to Early Childhood Education*

The history of early childhood education dates back to Antiquity, beginning with Plato's innovative ideas on educating children and encompassing the contributions of many theorists. Developmental scholars generally agree that learning is optimized when children play and interact with their environment. Friedrich Froebel (1782–1852), the founder of the kindergarten, believed that children need their own space to learn independently from adults. According to Froebel, "...play is the highest expression of human development in childhood, for it alone is the free expression of what is in a child's soul" (Çelmeta & Mato, 2024, pp.22).

One of the most prevalent educational approaches, constructivism, posits that children actively construct meaning through experiences and interactions with the world. Education should nurture this process by offering opportunities for children to engage with learning materials in diverse ways (Bruner, 1978). Jerome Bruner (1915–2016), with his theory of discovery learning, emphasized experiential learning and active involvement (Bruner, 1960). He advocated for teachers to encourage children through open-ended questions. Jean Piaget (1896–1980) argued that children experience the world through actions, represent things with words, think logically, and use reasoning. Cognitive development, in his view, is a progressive reorganization of mental processes resulting from biological maturation and environmental experience (Piaget, 1952). Similarly, Lev Vygotsky (1896–1934) asserted that the environment in which children grow up influences their thinking, and cognitive development stems from social interactions and guided learning within the zone of proximal development (Vygotsky, 1986). Constructivists emphasize that children should be allowed to touch, move, listen, see, taste, discover, and explore the world around them in a rich and supportive environment (Rinaldi, 2006). Children benefit from education that is designed as a well-organized and planned curriculum, enabling learning through play and experimentation (Abd Rahim et al., 2020).

### *1.3 Encouraging Outdoor Play and Activities in Preschool Institutions*

Children should be given more time to engage in outdoor activities. However, time alone is not sufficient. Teacher training, outdoor play intervals, and improved outdoor environments can significantly contribute to supporting children's development and education (Razak et al., 2018). Strong correlations have been found between outdoor playtime and children's physical activity. Extended outdoor play sessions enhance physical activity levels (Tucker et al., 2017). According to global recommendations, 60 to 90 minutes should be allocated as the standard duration for outdoor activities in preschool settings (Tandon et al., 2019). This duration allows for more vigorous play (Driediger et al., 2018). During outdoor activities, adults should encourage children to ask questions. Some questions may have immediate answers, others might require time to respond, and some may remain unanswered (Davidson, 2018).

Outdoor play environments stimulate all aspects of development at a faster pace compared to indoor settings (Moore and Wong, 1997; Flannigan and Dietze, 2017; Dietze and Kashin, 2023; Scott et al., 2024). However, research indicates that early childhood education is predominantly focused on indoor activities due to the misconception that outdoor spaces serve solely for relaxation (Kalpogianni, 2019). Play and recess time in kindergarten and elementary school has been reduced and replaced by lessons, as current educational policies promote the role of memorization and learning of factual knowledge, at the expense of exploration through play (National Education Association, 2007; Pellegrini and Bohn, 2005). There is a growing emphasis on early academic preparation of children through structured activity, as opposed to the play-based approach supported by developmental research (Hirsh-Pasek & Golinkoff, 2008).

Opportunities for outdoor play are decreasing in many countries around the world. In our increasingly urbanised world, children are becoming disconnected from the natural world (Soga et al., 2018). The underlying causes for this trend are related to urbanization and the reduction of natural environments (Soga et al., 2018), traffic and air pollution (Albertyn et al., 2014). Adults' concerns about potential incidents are also a major barrier to outdoor play (Truong, Nakabayashi, & Hosaka, 2022). Indoor play activities have become more frequent than outdoor activities (Bento and Dias, 2017). Often the time spent by children in free play outside is less than the recommended daily minimum of 60 minutes (McFarland & Shelby, 2018). During the last two decades, learning through play is placed at the centre of early childhood education (NAEYC, 2022). Play and learning support each other, so teachers should connect learning goals with children's play (Alfieri et al. 2011; Sim & Xu 2015). Recognizing the importance of outdoor activities and play in children's development, this study aims to provide an overview of how outdoor environments are utilized in preschool institutions for educational and play activities, supporting children's education and development.

## 2. Objectives and Goals

The study focuses on outdoor activities and play in preschool institutions in Tirana, aiming to identify: 1) the spaces and equipment in the outdoor environment of kindergartens; 2) the frequency of activities organized in outdoor settings; and 3) the differences between public and private institutions regarding the outdoor environment and outdoor activities. Based on the study's findings, recommendations can be made regarding outdoor activities and play in preschool settings and their optimal use for the education and development of children. The study aims to serve stakeholders in early childhood education, including teachers, education specialists, parents, and the community.

The research questions were:

1. What is the current state of the outdoor environment in preschool institutions?
2. Are there differences in the outdoor environment between public and private preschool

institutions?

3. What is the frequency of the outdoor educational and play activities in which children engage in preschool institutions?
4. Are there differences in the frequency of the outdoor educational and play activities in which children engage in public and private preschool institutions?

## 3. Methodology and Sample

This is a quantitative study, and data collection was conducted using a questionnaire. The sample consisted in 332 preschool teachers from public (N=248) and private (N=84) kindergartens in Tirana. The public preschool population in the Tirana region consists of 83 preschools, 51 of which are located in the urban area and 32 are located in the rural area. In 2023, 557 teachers were employed in state (public) preschools in Tirana, with 434 in urban preschools and 123 in rural ones. For this study, 195 teachers from urban preschools and 55 teachers from rural preschools were randomly selected.

The private preschool population licensed by the Ministry of Education and Sports (2023) included 112 preschools. Private preschools were selected using a non-probability sampling process, based on the researcher's access, primarily in the urban area of the capital city. These included six preschools applying the national preschool education framework and six international preschools using different methods such as Reggio Emilia, Montessori, Early Years, etc. A total of 12 preschools were selected, and the sample consisted of 88 teachers.

In total, 338 teachers were initially included in the sample, but six questionnaires were invalid, leaving a final sample of N=332 teachers, 248 from public preschools and 84 from private ones. Each group of children in all kindergartens had one to two main teachers, and all teachers from the selected groups were included in the sample.

Participants completed the questionnaire *"Educational Methods in Preschools: A Questionnaire for Teachers,"* an instrument that collected data on demographics, teacher training, aspects of the educational curriculum, resources, materials, spaces, learning and play activities in preschool institutions. This instrument, adapted from Ferizi-Shala (2017), was tailored to the local preschool context and piloted with 12 preschool teachers to ensure its clarity and applicability.

## 4. Data Analysis

The data were collected during two periods: May-June 2023 and September-October 2023, in public and private preschools in Tirana. Descriptive data are presented through mean values and standard deviations. Comparisons between the two groups for all variables were conducted using independent t-tests. All statistical analyses were performed using SPSS 25.0 for Windows, with a statistical significance threshold set at $<0.005$. SPSS 25.0, a version of the Statistical Package for the Social Sciences, is widely used in scientific research for quantitative data analysis.

## 5. Results

### *5.1 Demographic Data*

All teachers (N=332) were female, most of them aged between 25 to 40 and 41 to 50. In the first section of the questionnaire, participants provided information about their educational background, work experience with children, trainings and the curriculum. The majority of participants (76% of them) had completed a Bachelor's degree in Preschool Education and a Master's degree in Teaching. Other fields of education included: Elementary Education; Educational Leadership and Management; Special Pedagogy; Pedagogy; Philology; Social Sciences; Montessori Teaching, etc. The majority of preschool institutions (92% of them) were located in urban Tirana. Most teachers (74.6% of them) worked in public preschools, of which 58.4% worked in urban preschools and 16.2% in the suburb.

Meanwhile, 25.4% of them worked in private preschools. Teachers were asked about the trainings they had completed in the field of preschool education. From a list of nine topics accredited by the Ministry of Education and Sports the most attended training programs were:

1. "Competency-Based Preschool Curriculum Framework" (79.2%);
2. "Inclusion in Preschool Education" (73.6%);
3. "Professional Standards for Preschool Teachers" (60.5%);
4. "Curriculum-Based Planning" (59.9%);
5. "Training on All Guidelines Issued by the Ministry of Education" (53%);
6. "Teacher Qualification Programs" (50.6%).

Participants also mentioned additional training topics. The three most attended were:

1. "The Reggio Emilia Approach" (24%);
2. "Children with Disabilities" (12%);
3. “Behavioural Problems Management in Classroom” (12%).

The majority of teachers (82% of them) reported that they worked with the “Public Preschool Education Curriculum Framework”. The most frequently reported teaching methods included child-centered, project-based, play-based and inclusive ones. Most participants (94.5% of them) reported that they had received formal training on the curriculum they employed in the classroom.

### 5.2 *The Outdoor Environment*

Teachers were asked about various aspects of the outdoor environment in preschools. The second section of the questionnaire listed statements related to outdoor spaces, the conditions of the playground, the availability of equipment and materials, sports-related equipment, sand and water areas, gardening areas, etc. Participants rated their agreement with each statement on a 5-point Likert scale. Higher scores indicated greater levels of agreement. The scale’s reliability was excellent (Cronbach’s alpha = .868). Tables 1 and 2 present the Means (M) and Standard Deviations (SD) for all statements in this section.

For most aspects, the mean scores were high. The statements with the highest scores were:

- "Our preschool has enough spaces for outdoor activities." (M=4.44, SD=.971);
- "We use natural recyclable materials." (M=4.38, SD=.722);
- "The playground has tools and equipment for children." (M=4.35, SD=.956);
- "The playground is in good condition for play." (M=4.32, SD=.963);
- "Our preschool has equipment for outdoor sports." (M=4.05, SD=.999).

The statements with the lowest scores were:

- "Our preschool yard has a sand and water area." (M=3.86, SD=1.101);
- "Our preschool yard has a gardening area where children can take care of plants." (M=3.84, SD=1.067).

**Table 1.** Outdoor Spaces and Equipment in Preschool Institutions

| No. | Statements | M | SD |
|---|---|---|---|
| 1 | Our preschool has enough spaces for outdoor activities. | 4.44 | 0.731 |
| 2 | We use natural recyclable materials. | 4.38 | 0.722 |
| 3 | The playground has tools and equipment for children. | 4.35 | 0.956 |
| 4 | The playground is in good condition for play. | 4.32 | 0.963 |
| 5 | Our preschool has equipment for outdoor sports. | 4.05 | 0.999 |
| 6 | Our preschool yard has a sand and water area. | 3.86 | 1.101 |
| 7 | Our preschool yard has a gardening area where children can take care of plants. | 3.84 | 1.067 |
| 8 | We keep small animals, such as turtles, etc. | 3.24 | 1.222 |
| 9 | In our preschool, we grow vegetables such as tomatoes, carrots, zucchini, etc. | 3.20 | 1.125 |

Table 2 presents the percentages for each response, ranging from "strongly agree" to "strongly disagree" regarding outdoor spaces and equipment in preschools. As shown in the table, the majority of teachers strongly agreed on aspects related to the outdoor environment. However, for the items related to living areas (plants and animals), agreement levels were lower.

**Table 2.** Percentages for Items Regarding Outdoor Spaces and Equipment

| No. | Statement | Strongly Agree | Agree | Disagree | Strongly Disagree | Don't Know |
|---|---|---|---|---|---|---|
| 1. | Our preschool has enough spaces for outdoor activities. | 59.9 | 23.9 | 8.1 | 7.5 | 0.6 |
| 2. | We use natural recyclable materials. | 56.9 | 27.4 | 7.7 | 6.8 | 1.2 |
| 3. | The playground has tools and equipment for children. | 54.9 | 37.2 | 5.2 | 2.4 | 0.3 |
| 4. | The playground is in good condition for play. | 40.7 | 33.9 | 10.4 | 6.2 | 1.9 |
| 5. | Our preschool has equipment for outdoor sports. | 36.5 | 29.2 | 20.1 | 12.5 | 1.8 |
| 6. | Our preschool yard has a sand and water area. | 32.3 | 34.8 | 20.6 | 9.5 | 2.8 |
| 7. | Our preschool yard has a gardening area where children can take care of plants. | 21.4 | 19.9 | 24.5 | 29.4 | 0.9 |
| 8. | We keep small animals, such as turtles, etc. | 15.7 | 23.1 | 31.8 | 24.4 | 4.9 |

### 5.3 *Frequency of Outdoor Activities*

In the third section, the teachers were asked about the frequency of educational and play activities the children were engaged in the outdoor environment. They responded on a Likert scale, where 0 (Never), 1 (Once a year), 2 (Once a month), 3 (Once every two weeks), 4 (Once a week), 5 (Twice a week), 6 (Three times a week), and 7 (Every day). The reliability of the scale was excellent (Cronbach's alpha = .858). Table 3 presents the means (M) and standard deviations (SD) of the items. The most frequent activities (twice to three times a week) were nature-oriented activities such as throwing, rolling, and balancing (M = 5.51, SD = 1.306). Activities using natural recyclable materials (M = 4.31, SD = 1.728), activities where children explore the inanimate world (M = 4.26, SD = 1.877) and the living world (M = 4.02, SD = 1.829) were practiced about once to twice a week. Activities promoting natural diversity (M = 3.58, SD = 2.053) occurred about once a week; educational visits to institutions (M = 2.80, SD = 2.144) took place about once every two weeks, while planting activities (M = 1.92, SD = 1.395) were rare (once a month). Overall, it was reported that nearly every day of the week, an activity took place in the outdoor environment of the kindergartens, with a focus on nature-oriented activities and play.

**Table 3.** Outdoor Activities and Their Frequency in Preschools

| No. | Type of Activity | Frequency |
|---|---|---|
| 1. | Nature-oriented activities (throwing, rolling, balancing) | 2-3 times a week |
| 2. | Hand-crafting with natural recyclable materials | 1-2 times a week |
| 3. | Activities where the child explores the non-living world | 1-2 times a week |
| 4. | Activities where the child explores the living world | 1-2 times a week |
| 5. | Activities promoting natural diversity | Once a week |
| 6. | Educational visits to institutions | Every 2 weeks |
| 7. | Planting activities | Once a month |

### 5.4 Differences Between Public and Private Kindergartens

#### 5.4.1 The Outdoor Environment

Table 4 presents the means, standard deviations, and t-tests, which show the differences between public and private kindergartens. The outdoor spaces and equipment were in good condition and suitable for educational and play activities in both groups, with no significant differences (t=-2.840, p=.006). A statistical difference was found only for the statement, “In the outdoor space, we have a sand and water corner” (t=-4.209, p<.001), where private preschool teachers had a higher level of agreement. Thus, sand and water corners were more common in private institutions, while other aspects of outdoor environment were similar across both types of institutions.

**Table 4.** Comparison Between Public and Private Preschools for the Outdoor Environment

| | | Public (N=248) | | Private (N=84) | | | |
|---|---|---|---|---|---|---|---|
| | | $M_1$ | $SD_1$ | $M_2$ | $SD_2$ | t-test | Sig. |
| **No.** | **Outdoor spaces and equipment** | 3.85 | .686 | 4.08 | .538 | -2.840 | .006 |
| 1. | Our preschool has enough spaces for outdoor activities. | 4.47 | .716 | 4.36 | .771 | 1.191 | .235 |
| 2. | We use natural recyclable materials. | 3.76 | 1.105 | 4.08 | .913 | -2.404 | .017 |
| 3. | The playground has tools and equipment for children. | 3.72 | 1.144 | 4.29 | .824 | **-4.209** | **.000** |
| 4. | The playground is in good condition for play. | 3.98 | 1.027 | 4.27 | .881 | -2.295 | .022 |
| 5. | Our preschool has equipment for outdoor sports. | 3.12 | 1.122 | 3.45 | 1.102 | -2.322 | .021 |
| 6. | Our preschool yard has a sand and water area. | 3.20 | 1.216 | 3.34 | 1.242 | -.879 | .380 |
| 7. | Our preschool yard has a gardening area where children can take care of plants. | 4.29 | 1.023 | 4.54 | .690 | -2.104 | .036 |
| 8. | We keep small animals, such as turtles, etc. | 4.27 | 1.031 | 4.47 | .709 | -1.612 | .108 |

#### 5.4.2 Frequency of Outdoor Activities

Table 5 presents the means, standard deviations, and t-tests for the frequency of outdoor educational and play activities in kindergartens. Outdoor activities were carried out daily in all preschool institutions, but in private kindergartens (M=4.02, SD=1.100), compared to public kindergartens (M=3.57, SD=0.104), their frequency was higher (t=-3.414, p=.001). The difference was also significant for “nature-oriented activities” (t=-4.483, p<0.005), while other activities were reported with the same frequency.

**Table 5.** Comparison between Public and Private Kindergartens for the Frequency of Outdoor Activities

| | Public (N=248) | | Private (N=84) | | | |
|---|---|---|---|---|---|---|
| **Activity** | $M_1$ | $SD_1$ | $M_2$ | $SD_2$ | t-test | Sig. |
| **Frequency of outdoor activities** | 3.57 | 1.044 | 4.02 | 1.100 | -3.414 | **.001** |
| Nature-oriented activities (throwing, rolling, balancing) | 5.33 | 1.293 | 6.08 | 1.186 | -4.483 | **.000** |
| Hand-crafting with natural recyclable materials | 1.82 | 1.359 | 2.20 | 1.471 | -2.121 | .035 |
| Activities where the child explores the non-living world | 3.90 | 1.779 | 4.38 | 1.935 | -2.053 | .041 |
| Activities where the child explores the living world | 4.18 | 1.704 | 4.71 | 1.750 | -2.354 | .019 |
| Activities promoting natural diversity | 3.44 | 1.988 | 4.06 | 2.211 | -2.173 | .031 |
| Educational visits to institutions | 2.72 | 2.156 | 3.05 | 2.099 | -1.206 | .229 |
| Planting activities | 2.03 | 2.156 | 2.89 | 1.104 | -.998 | .147 |

## 6. Discussion

This study focused on outdoor educational and play activities in preschool institutions in Tirana, Albania. The data was collected by quantitative measures form educators regarding outdoor spaces and equipment and the frequency of outdoor activities. Also, the differences between public and private kindergartens regarding outdoor spaces and activities were explored.

All the participants reported that kindergartens had enough spaces and suitable equipment for educational and play activities in the outdoor environment. The playgrounds were in a good condition for self-directed or free play and they offered opportunities for involvement in sports. Most kindergartens had a “sand and water area” as well as a “gardening area”. In a study by Beqiri & Braho (2023), the outdoor areas of kindergartens in Tirana were observed to have diversity in equipment and spaces. Sensory walls were built in most of the kindergartens and the children used to play in them up to three times a week. The participants reported that the sensory activities affected various aspects of children's physical, social-emotional, cognitive and linguistic development, as well as improved their connection with nature and the real world.

As research has shown, a qualitative physical environment in preschool institutions brings numerous benefits. When children play in these environments and outdoor spaces, they can use all their senses to discover and explore the world around them (Rinaldi, 2006). The more diverse and rich the outdoor environments, the greater the opportunities for learning (Mashburn, 2008). Research indicates that playing in playgrounds increases self-confidence in children, improves language, communication, social skills, sharing and collaboration as well as lots of physical competence (Driscoll and Negel, 2002).

Various outdoor activities were carried out in the kindergartens in our study, with the most frequent being nature-oriented activities, hand-crafting with recyclable natural materials and activities involving exploration. Outdoors, children prefer to explore new things; for example, if they have learned how to climb and slide on a slide, they now prefer to challenge themselves by climbing a log and jumping off it (Moore and Wong, 1997). This might explain the reason why nature-oriented activities were more frequent than other types of outdoor activities. Also, all children want to interact with natural materials, which they can explore, discover, and experiment with (Wan and Zulkiflee, 2010) which explains why outdoor activities involving natural and recyclable materials were most frequent.

However, the frequency of outdoor activities was moderate in the preschool institutions involved in the study. For example, nature-oriented activities such as throwing, rolling, balancing, were carried out two to three times a week, while activities where the child had to explore the world, were carried out one to two times a week. The duration of outdoor activities was not specifically measured in this study. According to expert guidelines, preschool children should spend 60 to 90 minutes per day playing outside (Tandon et al., 2019), so they have to play every day in the outdoor environment, at least an hour a day. During outdoor play, children will benefit in many different ways. The longer the play outdoors, the more physically active they will be (Razak et al., 2018) and the more energetic the games they will engage in (Driediger et al., 2018). Preschoolers who spend more time outdoors are more active than those who spend time indoors (Hinkley et al., 2008). In the context of urbanization, but also global epidemics such as obesity in childhood, resulting from sedentary behaviours (Blair, 2009), the benefit of physical activity is fundamental. When children play outdoors, they engage in free and self-directed play, which is important for promoting exploration and curiosity that lead to the acquisition of knowledge and skills necessary for later academic success (Fisher et al., 2008). During self-directed activities, children become learners and teachers, sharing their skills and knowledge while undertaking challenges and performing various tasks (Davidson, 2018). The interactions with nature influence the strengthening of emotional attachment and appreciation of the natural world, which will have a strong influence on pro-nature behaviours in adulthood (Cheng and Monroe, 2012).

The moderate frequency of outdoor play activities in our study is in line with what many researchers have found. Today, children are spending less time engaged in outdoor play compared to children three or four decades ago (Juster, Stafford & Ono, 2004; Prisk & Cusworth, 2018). The most investigated factors related to the decrease in outdoor play are parental and institutional barriers. Regarding institutions, studies have shown that educators might perceive more risks when children play outside (Bento and Dias, 2017), which is why children are not allowed to play outside as much as they should. Also, the fears and professionals' attitudes towards physical safety aspects lead to a tendency to keep children indoors with structured and controlled activities (Gill, 2017). Some other factors inhibiting outdoor play are preschool policy, lack of suitable space, as well as health and safety concerns (Kalpogianni, 2019).

Outside preschool institutions, some important factors are related to parental attitudes and perceptions (Cheng & Monroe, 2012; Ahmetoglu, 2019), urbanization of capital cities (Lopes et al., 2014) and lack of natural spaces in many neighbourhoods (Soga et al., 2018). In a study with Albanian parents of kindergarten children (Braho & Bano, 2024), parents reported that their children were more active in the outdoor environment when they were with family members rather than in kindergarten. Even though 25 per cent of parents were not informed about the frequency and the duration of outdoor activities in kindergarten, around 90 per cent of them would prefer for their children to engage more in free play outdoors during the time in the kindergarten. To combat the decrease in outdoor play for children, researchers have suggested increasing recess time that might benefit all children (Bustamante et al., 2019).

The reports about outdoor activities were similar in both public and private kindergartens with minor but non-significant differences. In private kindergartens the educators reported more nature-oriented activities. This can be related mainly to the different pedagogical approaches they apply. Most of the private kindergartens were based on the Montessori method and Reggio Emilia approach. In the Montessori preschools, the design of the physical environment and the development of the curriculum are two sides of the same coin. A properly planned and prepared outdoor area allows the curriculum to become alive (Cosco & Moore, 2007). Also, in Reggio Emilia approach, the emphasis on the environment is well known. As the "third educator", the environment holds great potential to influence what and how children learn. "There are three teachers of children: adults, other children, and their physical environment" (Malaguzzi, 1988, p. 83). In its attention to how space can be thoughtfully arranged, Reggio Emilia has reconceptualized space as a key source of educational provocation and insight (Strong-Wilson and Ellis, 2007). In a study with Albanian educators in Kosovo, differences were found between preschool education approaches and environmental factors (spaces inside and outside; tools and materials), even though the researcher did not find differences for the frequency of nature-based educational and play activities (Ferizi-Shala, 2017).

Researchers have raised concerns about the lack of play in childhood (Zigler and Bishop-Josef, 2004). In preschool institutions, curriculum frameworks offer pedagogical approaches (Dietze & Kashin, 2023) that guide experiences based on children's curiosity, exploration, thinking, and learning in indoor and outdoor environments. However, outdoor play is not explicit in early childhood curriculum frameworks. Lack of training of early learning teachers in outdoor pedagogy might inhibit the process of integrating outdoor activities in the preschool curriculum (Boileau & O'Donoghue, 2024).

Interactions with the environment are the foundation for child development (Piaget, 1952; Vygotsky, 1986; Montessori, 1964; Malaguzzi, 1996). During the last decades, children's play experiences in outdoor environments are increasingly recognized as essential for their healthy development and well-being (Dietze & Kashin, 2023; Scott et al., 2024). Play activities in the outdoor and natural environment contribute to acquiring skills in all areas, so their importance should not be neglected, especially in preschool institutions. Since indoor play activities have become more frequent than outdoor activities (Bento and Dias, 2017), this is a strong indicator that makes it very important for early childhood educators to involve and extend more outdoor activities in their program. Childhood is the most critical period of development, during which social-emotional and cognitive growth occurs more rapidly than at any other life stage; thus play-based learning environments should be an integral part of every child's life.

## 7. Conclusions

The study showed that the preschool institutions had appropriate spaces and equipment in the outdoor environment for conducting outdoor play and activities. Outdoor spaces were equipped with materials, tools and play equipment, as well as with different spaces (water, sand, gardening), serving the purpose of educational activities and play in all institutions. There were no differences between public and private kindergartens in terms of outdoor spaces and equipment. Various activities were carried out outdoors in kindergartens, and all days of the week were covered with outdoor activities, with the most frequent being nature-oriented activities and the least frequent being visits to institutions, as well as planting plants. Most activities in both public and private kindergartens were carried out with the same frequency, but private kindergartens reported more nature-oriented activities. Activities in the outdoor environment were diverse, and reports indicated that at least one outdoor activity was carried out every day in all kindergartens, although the duration of time children spent on these activities in kindergartens and the level of involvement according to different age groups was not measured.

## 8. Recommendations

Based on the findings, the following recommendations can be made:

First, increase the frequency of outdoor play in kindergartens and monitor their duration, in line with global recommendations for 60 minutes of play per day for kindergarten children. Providing children with regular opportunities to experience natural environments would further develop their physical, cognitive, and social aspects (Wan & Zulkiflee, 2010). Offering an environment that encourages movement and motor development is essential, especially at a time when childhood obesity is becoming an epidemic (Slining et al., 2021).

Second, optimize the outdoor environments of preschool institutions for structured and free outdoor play. The diversity of natural environments meets children's need for variation and creates a stimulating play environment (Wan &Zulkiflee, 2010). The diversity of the environment creates more opportunities for play and especially impacts motor development (Fjortoft dhe Sagie, 2000), as well as other developmental aspects such as brain development, language, social skills, cognitive abilities, etc. According to Wray et al. (2020), natural elements should be included in outdoor environments to encourage play and exploration. Play areas in kindergarten courtyards should use forms, textures, and manipulative materials.

Third, include outdoor play and interaction with the natural environment in the curriculum of preschool institutions. Studies show that children benefit when early childhood education includes a planned and organized curriculum that allows learning through play and experimentation (Abd Rahim et al., 2020).

Fourth, increase activities in environments or places outside the kindergarten yard, such as visits to natural parks, museums, zoos, etc. Activities such as visits to museums have a positive impact on the learning process, as museums provide children with knowledge that creates connections between tangible exhibits and history, unlike traditional approaches (Davidson, 2018).

Fifth, teachers should be trained on the effects of play, especially free outdoor play, and supported in using outdoor play activities. Teachers should be encouraged to use outdoor spaces and natural materials in daily educational activities. They should be encouraged to create spaces in kindergartens with natural materials and to ask the right questions during nature exploration. Recognizing the important role teachers play in evaluating play materials and other objects in the yard, they should be involved in selecting and replacing low-quality materials with high-quality ones that are attractive to children (Sakellariou & Banou, 2020). Additionally, the involvement of parents and children in designing outdoor play areas should be encouraged.

Sixth, further studies should be conducted to measure the duration of outdoor activities and play throughout the year, their effects on children's developmental areas, using not only quantitative methods but also qualitative ones, and to identify barriers to outdoor play, based on reports from teachers, parents, and other professionals.

Seventh, recognizing the importance of early years as the most vital period in life, investment in early childhood education programs should be seen as a priority in education policies. Outdoor activities and play should support education that occurs within the classroom. Enriching outdoor spaces and increasing outdoor play and activities in preschool institutions will improve early childhood education practices and support the holistic development of children, ensuring their success in later stages of life.

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