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# Learning Beyond Walls: Teachers' Insights on 'Outdoor Play' as a Path to Sustainable Development of Children in Turkey and Greece

Abdülkadir Kabadayı
https://orcid.org/0000-0003-4114-5890
Necmettin Erbakan University, Konya, Turkey

Özkan Sapsağlam
https://orcid.org/0000-0002-9965-5191
Yıldız Technical University, İstanbul, Turkey

Kostas Karadimitriou
https://orcid.org/0000-0002-1615-3613
Democritus University of Thrace, Alexandroupolis, Greece

**Abstract**

The study examines Greek and Turkish teachers' perspectives on the role of outdoor play in fostering children's sustainable development. Outdoor play extends learning beyond the classroom, promoting holistic growth and environmental stewardship. The research is designed according to qualitative research methodology and case study pattern. In Turkey, 20 teachers purposively selected from 117 public schools for interviews have participated in the study. In Greece, 20 preschool teachers have also been involved. Data collection involves semi-structured interviews with open-ended questions, which have been recorded, transcribed, and translated into English from the native languages of both countries. Thematic interpretation and content analysis have been employed to analyze the data, with categories developed for each question. Qualitative interviews reveal their contributions to children's physical, cognitive, social, and emotional development while fostering values like environmental awareness, social responsibility, and cooperation. Despite these benefits, early childhood educators often prioritize academic activities over outdoor play due to safety concerns, limited resources, and curriculum constraints. Public fears regarding safety and security further restrict children's access to outdoor spaces, impacting

their well-being and development. The study highlights the need for policy reforms and teacher training to address these barriers, advocating for outdoor play as a cornerstone of early childhood education and a universal strategy to nurture environmentally conscious, socially responsible individuals.

*Keywords:* Greece, outdoor play, preschoolers, sustainability, teachers, Turkey.

## Introduction

Interest in outdoor play in early childhood education has grown globally, driven by its role in holistic child development and the urgent need to reconnect children with nature. Modern lifestyles often overprotect and overprogram children, reducing their interaction with natural environments, particularly as urbanization grows and rural populations decline. The current study explores the perspectives of teachers from Greece and Turkey – two culturally and economically distinct countries – on the role of outdoor play in early childhood education. Participants from major teacher education centers have been surveyed to understand their views and the identity-building messages their communities convey through outdoor play. Outdoor play is crucial for young children's holistic development, fostering cognitive, emotional, and social growth. However, the time children spend outdoors is declining globally. Natural environments, such as school playgrounds, provide health benefits, support lifelong learning, and contribute to sustainable education. They encourage inquiry and complex learning through their unique characteristics. Teachers' beliefs and practices play a vital role in shaping outdoor environments for learning. The present research underscores the importance of outdoor play for developing future citizens and fostering sustainability, addressing why and how children should engage with nature during their early years.

## Theoretical Background

The early childhood years (ages 0–8) are a critical phase of human development, during which foundational skills, values, and habits are formed (Unicef, 2023; Sapsağlam, 2023). Play, recognized as a fundamental right under Article 31 of the Convention on the Rights of the Child, is essential during this period (the United Nations International Children's Emergency Fund [Unicef], 2024). Children spend approximately 20 % of their time playing, using play to communicate, learn, and develop their skills (Loizou, 2017). Interaction with nature during play offers numerous benefits, including increased physical activity (32 %) and improved cognitive, behavioral, and mental health (25 %) (Fyfe-Johnson et al., 2021). Outdoor environments, rich with natural elements, positively impact children's health and provide spaces for physical activity, social interaction, and exploration (Lund Fasting & Høyem, 2024; Fyfe-Johnson et al., 2021). Outdoor

play enhances cognitive, physical, social, and emotional development. It builds psychological resilience (Corraliza et al., 2017), supports academic performance (Lundy & Trawick-Smith, 2021), aids mathematical concept learning (Harte, 2013), improves attention spans (Koepp et al., 2022), and fosters locomotor and communication skills (Little & Wyver, 2008; Hartle, 1994). Additionally, it reduces hyperactivity and the risk of obesity and increases academic success (Ulset et al., 2017; Ansari et al., 2015). Outdoor play is thus vital for holistic child development and education. Children should play outdoors for at least 60 minutes daily, as recommended by health standards (American Academy of Pediatrics et al., 2011). However, research reveals a decline in outdoor playtime, largely due to the increasing use of technological devices (Jayasuriya et al., 2016; Larson et al., 2011). Global developments like the COVID-19 pandemic have increased screen time, shifting children's preferences toward digital games over traditional play (Rideout & Robb, 2020; Schmidt et al., 2020; Sapsağlam, 2023). This reduction in outdoor activities limits children's interaction with nature, though research highlights nature-based play as vital for development, physical activity, and social skills (Dankiw et al., 2020; Veitch et al., 2010; Hinkley et al., 2018). Outdoor play fosters environmental awareness and supports holistic learning processes influenced by the surrounding physical and social environment (Bandura, 1977; Bronfenbrenner, 1979; Vygotsky, 1978). Sustainability, defined as meeting present needs without compromising future generations (World Commission on Environment and Development [WCED], 1987), integrates environmental, economic, and social dimensions (Basiago, 1999; Veisson & Kabadayı, 2018). Early childhood is critical for instilling sustainable values and attitudes, as emphasized by UNESCO (2008, 2009). Positive early experiences in nature foster lifelong environmental responsibility and sustainable behaviors (Ewert et al., 2005). Sustainability education aims to prepare individuals to consider the social, economic, and environmental impacts of their actions (Rieckman, 2018).

In today's digital world, outdoor play is vital for children's development and sustainable education. It promotes physical health, cognitive growth, emotional resilience, and skills while fostering a bond with nature and environmental responsibility. However, reduced outdoor activities due to technology use, safety concerns, and the pandemic raise concerns about well-being and environmental awareness. Outdoor plays positively affect children's cognitive, social, psychomotor, emotional, and language development domains (Kabadayı & Karagöz, 2021; Stasulane, 2017; Kabadayı, 2005). The most significant effect of outdoor play is to provide children with socialization with their peers while building self-respect and shaping their personality. Integrating outdoor play into education supports holistic development, encourages sustainable practices like recycling and conservation, and builds problem-solving and adaptability skills. This prepares children to become environmentally conscious individuals committed to protecting the planet. Play is a vital tool for introducing sustainability in early childhood education, helping instill values and practices

from a young age (Engdahl et. al. 2023; Pramling et al. 2019). Research highlights the importance preschool teachers place on outdoor play for teaching sustainability and emphasizes the benefits of nature play in fostering knowledge, skills, and environmental awareness (Anyanwu, 2023). Integrating sustainability themes into play-based activities encourages critical thinking about social and economic issues (Assunção Folque et al., 2024) while empowering children to engage with sustainability challenges (Davis & Elliott, 2024; Hägglund & Pramling Samuelsson, 2009). These findings affirm outdoor play as an effective method for promoting sustainability education in early childhood. Outdoor play is a key way to introduce toddlers to sustainability concepts by providing hands-on experiences with nature. Activities like making mud potions, collecting twigs, or observing ants allow children to build a connection with the environment, fostering early environmental responsibility and sustainability (Burton, 2020). For educators, teaching sustainability through outdoor play involves using everyday moments to engage children's senses – touch, smell, sight, and sound – creating a foundation for environmental awareness (Forman et al., 2001). While children may not grasp the broader science, these experiences nurture care for the natural world and instill values that promote sustainability from an early age to adulthood (Burton, 2020).

The current study aims to explore how cultural and educational policies in Greece and Turkey shape preschool teachers' beliefs about outdoor play. By examining the early childhood education systems in these Southern European countries, the research investigates how "outdoor play" is defined, promoted, and recognized in the context of global emphasis on natural experiences. It also compares teachers' beliefs on the developmental impact of outdoor play and identifies factors influencing these perspectives.

## Methodology

### Study Group

The study includes 40 preschool teachers – 20 each from Turkey and Greece – selected using the analogous sampling technique, a purposeful method targeting similar subgroups relevant to the research (Büyüköztürk et al., 2012). In Turkey, 16 teachers hold Bachelor's degree, and 4 – Master's degree. The majority are between 26 and 29 years old, some are 30 or older, and they have between 1 and 8 years of experience, with six individuals having more than 9 years. The group, comprising four males and 16 females, teach 380 preschool children aged 3–6 years. In Greece, all 20 participants are female from northern regions, with 10 holding Bachelor's degree, 8 Master's, and 2 PhDs. Their ages range from 26 to over 45 years, with varying experience levels: 11 have up to 10 years, four have between 15 and 20 years, and five have over 21 years. They collectively teach approximately 450 children aged 4–6 years.

## Research Design

The study adopts an interpretative, qualitative research design using semi-structured interviews to gather rich and comprehensive insights into participants' experiences with outdoor activities in early childhood education. This case study approach enables an in-depth examination of preschool teachers' views on the role of outdoor play environments in supporting children's sustainable development (Creswell, 2003; Merriam, 2013). By utilizing diverse data collection methods, the research provides a detailed exploration of the topic, aligning with qualitative research principles (Johnson & Christensen, 2014).

## Reliability and Validity

The study ensures trustworthiness, often referred to as reliability in qualitative research, by aligning recorded data with natural settings, as suggested by Lincoln and Guba (1985) and Bogdan and Biklen (1998). Content validity has been achieved through expert opinion, with input from three educators specializing in assessment and research. Experts include academicians from Preschool, Environmental Education, and Educational Sciences departments in each country. Their feedback has informed necessary adjustments. Interviews have been conducted in participants' native languages (Turkish and Greek), and translation-back translation processes have been completed by language experts. All interviews have been recorded, transcribed, translated into English, and analyzed by two researchers for accuracy and consistency.

## Findings

In this section, the findings regarding the responses of Turkish and Greek preschool teachers to the questions in the interview form are presented. Frequency and percentage values of teachers' opinions are presented, and quotes from teachers' answers are provided.

**Table 1**

*Teachers' Opinions Regarding the Age of Starting Play Education in Nature Outside of School*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| Age of starting education | 1–2 age | 6 | 30 | T4, T8, T9, T10, T14, T20 | 6 | 30 | T2, T5, T10, T8, T16, T18 |
| | 3–4 age | 14 | 70 | T1, T2, T3, T5, T6, T11, T12, T13, T15, T16, T17, T18, T19 | 5 | 25 | T4, T6, T14, T17, T19 |
| | Infancy | | | | 9 | 45 | T1, T3, T7, T9, T11, T12, T13, T15, T20 |

The findings in Table 1 reveal that most Turkish preschool teachers (n=14) believe outdoor play education should begin at age 3, while others (n=6) suggest starting at ages 1–2. In contrast, most Greek teachers (n=9) advocate for starting in infancy, with six recommending initiation as soon as children can walk (around age 1–2). Five Greek teachers suggest ages 3–4 as appropriate.

Some sample answers from the teachers who have participated in the research are given below.

*TT20 (Turkish Teacher): "Out-of-school nature play education should be given starting from the age of 1."*
*TT1: "It should be given starting from the age of 2."*
*TT3: "It can be given in educational institutions starting from the age of 3."*
*TT6: "From the age of 4."*

*GT3 (Greek Teacher): "Education through outdoor play can begin in infancy."*
*GT10: "From toddlers (1–3 years) and in general from the age when they can walk."*
*GT12: "It can begin at a very young age, even in infancy, and continue throughout childhood development."*
*GT18: "If possible, as early as possible, that is 2 to 3 years old."*

**Table 2**

*Teachers' Opinions on the Importance of Outdoor Play Education in Nature for Sustainability*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| The importance of play in nature outside of school for sustainability | Environmental awareness | 6 | 30 | T5, T6, T7, T9, T11, T20 | 13 | 65 | T2, T3, T5, T6, T9, T10, T11, T12, T13, T14, T15, T18, T19 |
| | Nature protection awareness | 11 | 55 | T1, T2, T3, T4, T10, T12, T13, T14, T16, T17, T18 | 2 | 10 | T7, T16 |
| | Permanent learning | 3 | 15 | T8, T15, T19 | 5 | 25 | T1, T4, T8, T17, T20 |

Table 2 shows that most Turkish preschool teachers (n=11) view outdoor play education in nature as crucial for fostering awareness of protecting nature. Others emphasize environmental awareness (n=6) and permanent learning (n=3). Among Greek teachers, 13 highlight environmental awareness as the key benefit, with two specifically mentioning nature protection, and five emphasizing learning or developmental benefits.

Some sample answers from the teachers who have participated in the research are given below.

*TT6: "The child needs to get to know the environment."*
*TT4: "It is important for sustainability because one will learn to protect nature in nature."*
*TT19: "When children receive education in nature, they learn the information by experiencing it."*

*GT1: "It is important because sustainability is part of the values that people should have from early childhood, and playing outdoors is the appropriate means for learning it at this age."*
*GT3: "Outdoor play promotes environmental awareness, strengthens the connection with nature, and cultivates habits of sustainable behavior such as caring for the environment and rational use of resources."*
*GT8: "Because children come into contact with open space, air, various weather phenomena, come into contact with nature, and learning becomes experiential."*
*GT16: "Because children learn to protect natural resources and take care of the environment."*

**Table 3**

*Teachers' Opinions on Who Should Give Outdoor Play Education in Nature*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| Who should provide out-of-school play education in nature | Parents and teachers | 6 | 30 | T6, T11, T13, T18, T19, T20 | 10 | 50 | T1, T2, T7, T8, T9, T11, T13, T14, T17, T19 |
| | Teachers only | 14 | 70 | T1, T2, T3, T4, T5, T7, T8, T9, T10, T12, T14, T15, T16, T17 | 3 | 15 | T4, T16, T18 |
| | Parents, teachers, and others (e.g., specialties of educators, and community agents) | | | | 5 | 25 | T5, T12, T15, T20 T10 |
| | Teachers and other specialty educators | | | | 2 | 10 | T6, T3 |

Table 3 reveals that most Turkish preschool teachers (n=14) believe outdoor play education in nature should be led by teachers, while six suggest it should involve both teachers and families. Among Greek teachers, half (n=10) think that both families and teachers should provide this education, with four including others like physical education teachers and community agents. Only three Greek teachers see preschool teachers as solely responsible, while two suggest involving specialists like environmentalists and psychomotor experts. One teacher excludes preschool teachers, assigning the responsibility to parents and physical education teachers. Notably, an ongoing debate in Greece about including specialists in preschool education may influence these views.

Some sample answers from the teachers who have participated in the research are given below.

*TT11: "Families and preschool teachers."*
*TT 17: "Preschool teachers who have improved themselves in this regard."*
*TT5: "Preschool teachers who know first aid."*

*GT3: "Education should be provided primarily by preschool teachers trained to integrate outdoor play into the curriculum. Additionally, the contribution from experts (e.g., environmentalists) can enhance the experience."*

*GT5: "Education for outdoor play should be a collaborative effort between teachers, parents, education providers, and the community. Preschool teachers have the leading role, but support from other agencies is essential for children's integral development."*
*GT16: "Experienced preschool teachers."*
*GT20: "The preschool teachers, physical education teachers, and the parents."*

**Table 4**

*Teachers' Opinions Regarding the Roles of Parents in Outdoor Play Education in Nature*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| Roles of parents | Collaborating with the teacher | 9 | 45 | T1, T6, T9, T10, T13, T14, T15, T16, T17 | 0 | 0 | - |
| | Enabling the child to meet nature | 11 | 55 | T2, T3, T4, T5, T7, T8, T11, T12, T18, T19, T20 | 18 | 90 | T2–4, T6–20 |
| | Being a role model | | | | 2 | 10 | T1, T5 |

Table 4 shows that most Turkish preschool teachers (n=11) view parents' primary role in outdoor play education as introducing children to nature, with nine emphasizing collaboration with teachers. In contrast, nearly all Greek teachers (n=18) highlight parents' role in motivating, encouraging, and supporting outdoor play, while only two see parents as key learning agents and role models. Notably, no Greek teachers have mentioned collaboration between parents and teachers.

Some sample answers from the teachers who have participated in the research are given below.

*TT4: "Spending time in nature with the child."*
*TT6: "To cooperate with the teacher and increase the permanence of education."*
*TT8: "Ensuring the child spends more time in nature."*
*TT13: "Active family participation in cooperation with the teacher."*

*GT5: "Parents are children's first teachers and can shape their relationship with nature and outdoor play. Through their encouragement, participation, and personal example, they create the foundation for a lifelong connection with the natural environment and a healthy, sustainable lifestyle."*
*GT6: "The role of parents is very important to the extent that they can organize the*

*child's free time and allow them to play in outdoor spaces."*
*GT20: "Their role is primary as they are the first to introduce outdoor spaces to their children and familiarize them with it."*

**Table 5**

*Teachers' Opinions on the Roles of Teachers in Outdoor Play Education Outside of School*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| Roles of teachers | Being a role model | 8 | 40 | T1, T2, T4, T5, T6, T8, T12, T15 | 4 | 20 | T1, T5, T11, 20 |
| | Making plans for activity | 12 | 60 | T3, T7, T9, T10, T11, T13, T14, T16, T17, T18, T19, T20 | 14 | 70 | T2, T3, T4, T6, T8, T9, T10, T12, T13, T14, T15, T16, T18, T19 |
| | Helps the child to meet nature / countervailing role | | | | 2 | 10 | T7, T17 |

Table 5 reveals that most Turkish preschool teachers (n=12) view planning activities as the primary teacher role in outdoor play education, with eight emphasizing being role models. Similarly, Greek teachers mostly highlight planning activities (n=14) and serving as role models (n=4) by inspiring children through a personal example. Two Greek teachers have also noted the compensatory role of teachers in introducing children to nature when families do not.

Some sample answers from the teachers who have participated in the research are given below.

*TT8: "It should be a model."*
*TT1: "Being a role model is one of the duties of the teacher."*
*TT3: "Planning garden and extracurricular activities."*
*TT7: "The teacher is a planner."*

*GT3: "The preschool teacher plans, guides, and evaluates outdoor play activities, fostering creativity, collaboration, and learning through exploration and interaction with the natural environment."*
*GT5: "The role of the teacher in outdoor education is multidimensional and critical... Through guidance, encouragement, and personal example, she inspires children*

*to love nature, acquire life skills, and develop responsible attitudes towards the environment."*
*GT6: "... teachers can use outdoor play as an important tool in their work. Their role is important to the extent that they can provide opportunities for children to play outdoors, whether it is the school yard, a nearby park, or an organized or unorganized recreation area that children could visit."*
*GT11: "To encourage children, to be a role model, to guide and give suggestions."*
*GT17: "They have a very important role as they must motivate children for outdoor play and keep them motivated if parents don't."*

**Table 6**

*Teachers' Opinions Regarding the Duties of Local Governments in Out-of-School Nature Play Education*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| Roles of local governments | Supporting teachers | 2 | 10 | T4, T10 | 0 | 0 | - |
| | Creating required fields | 18 | 90 | T1, T2, T3, T5, T6, T7, T8, T9, T11, T12, T13, T14, T15, T16, T17, T18, T19, T20 | 17 | 85 | T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T13, T14, T15, T16, T18, T19, T20 |
| | Organizing/ supporting actions/ programs | | | | 3 | 15 | T1, T12, T17 |

Table 6 shows that most Turkish preschool teachers (n=18) see the primary duty of local governments in outdoor play education as creating suitable environments, with two mentioning teacher support. Similarly, Greek teachers prioritize providing safe outdoor play spaces (n=17) and highlight the role of organizing programs to promote outdoor play (n=3).

Some sample answers from the teachers who have participated in the research are given below.

*TT10: "It could be supporting teachers."*
*TT12: "Providing out-of-school play environments."*
*TT20: "I think local governments must build suitable playgrounds for children in outdoor play education in nature."*

*GT1: "The local government should organize actions either in schools or open to*

*everyone and especially to children, which will offer learning opportunities through play in the countryside."*
*GT2: "Provide funds for upgrading schools and to create property and safe parks so that a family can come out and the child can play there, provide proper toys, etc."*
*GT3: "Local government should ensure safe, accessible, and quality outdoor play spaces, support educational programs, and provide resources to enhance environmental education."*

**Table 7**

*Teachers' Opinions Regarding the Inclusion of Out-of-School Nature Play Education in the National Preschool Education Program*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| The level of inclusion of out-of-school nature play education in the national preschool education program | Included at a sufficient level | 6 | 30 | T2, T3, T5, T8, T10, T14 | 10 | 50 | T1, T2, T3, T5, T7, T12, T13, T14, T15, T16 |
| | Not included at a sufficient level | 7 | 35 | T6, T11, T17, T18, T19, T20 | 10 | 50 | T4, T6, T8, T9, T10, T11, T17, T18, T19, T20 |

Table 7 reveals mixed opinions on the inclusion of outdoor play education in national preschool programs. Among Turkish teachers, most (n=7) believe it is insufficient, while six consider it adequate, and seven provide no clear answers. Greek teachers have been evenly split, with half (n=10) finding it insufficient and half considering it adequate, though many have noted that implementation also depends on teachers and available infrastructure.

Some sample answers from the teachers who have participated in the research are given below.

*TT5: "I think it is given sufficient importance."*
*TT11: "It cannot be said that it takes place very much."*
*TT19: "It takes place to a small degree; almost all activities take place in the classroom."*

*GT2: "It is promoted by the ministry, but it is not easily implemented due to poor infrastructure and often due to negative attitudes/fear for child safety."*
*GT6: "To a very small extent. The preschool curriculum provides time for psychomotor activities and free play in the yard, but little emphasis is placed on the value of this play. Furthermore, in many cases, schoolyards are completely unsuitable. In my case, we have stopped doing activities outdoors after three accidents at the beginning of the school year."*

*GT7: "To a large extent, since the children are allowed to play in the yard during the break every day."*

**Table 8**

*Teachers' Opinions Regarding the Development Areas Supported by Outdoor Play Education in Nature*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| Developmentareas supported by out-of-school play Education in nature | Supports motor skills | 1 | 5 | T19 | 1 | 5 | T18 |
| | Supports problem-solving skills | 2 | 10 | T5, T9 | 4 | 20 | T9, T15, T19, T20 |
| | Supports all develop-mentareas | 17 | 85 | T1, T2, T3, T4, T6, T7, T8, T10, T11, T12, T13, T14, T15, T16, T17, T18, T20 | 15 | 75 | T1, T2, T3, T4, T5, T6, T7, T8, T10, T11, T12, T13, T14, T16, 17 |

Table 8 shows that most Turkish teachers (n=17) believe outdoor play supports all areas of child development. A few specific areas have been mentioned, such as problem-solving (n=2) and motor skills (n=1). Similarly, Greek teachers also view outdoor play as supporting overall development (n=15), with some highlighting social, cognitive, emotional, and motor development, while others specify cognitive, socio-emotional, or motor skills.

Some sample answers from the teachers who have participated in the research are given below.

*TT19: "It improves motor skills."*
*TT9: "It improves problem-solving skills."*
*TT6: "It will improve all development areas."*
*TT17: "We can say that by supporting brain development, it supports the cognitive area, physical development and health areas, language, and social development areas, as it interacts more with its friends, in short, it supports all areas of development."*

*GT5: "Outdoor play is vital to children's holistic development, promoting their physical, emotional, social, cognitive, and environmental skills. In addition, children*

*through these activities learn the value of cooperation, problem-solving, creativity, and ecological awareness, thereby enhancing their overall development and well-being."*
*GT14: "It improves motor skills and social, emotional, and cognitive areas of development."*
*GT17: "It improves motor skills, social development, emotional development, and cognitive development."*

**Table 9**

*Teachers' Opinions on the Role of Play Education in Nature Outside School at an Early Age for Sustainability*

| | | **Turkish Participants** | | | **Greek Participants** | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| The role of out-of-school nature play education in sustainability education | Nature protection awareness | 3 | 15 | T5, T8, T18 | 2 | 10 | T2, T5 |
| | Permanent learning experience | 6 | 30 | T2, T6, T7, T9, T10, T15 | 6 | 30 | T1, T6, T8, T11, T17, T20 |
| | Environmental consciousness and awareness | 11 | 55 | T1, T3, T4, T11, T12, T13, T14, T16, T17, T19, T20 | 12 | 60 | T3, T4, T7, T9, T10, T12, T13, T14, T15, T16, T18, T19 |

Table 9 shows that most Turkish teachers (n=11) believe outdoor play at an early age fosters environmental consciousness and awareness. Other responses include permanent learning (n=6) and nature protection awareness (n=3). Greek teachers express similar views, with twelve (n=12) believing it promotes environmental consciousness, six linking it to learning and development, and two relating it to nature protection awareness.

Some sample answers from the teachers who have participated in the research are given below.

*TT8: "It is important for sustainability as it will increase the potential to protect and care for nature."*
*TT15: "Children learn to learn by doing and experiencing, and this learning becomes more permanent. It is very important for this."*

*TT6: "It will improve all development areas."*
*TT20: "I think that play in nature outside of school has a very important role in terms of children gaining environmental awareness and indirectly through their play in nature."*

*GT3: "It cultivates environmental awareness, strengthens the connection with nature, and develops responsible attitudes towards natural resources and their conservation."*
*GT5: "Outdoor play education at an early age is a foundation for sustainability, as it introduces children to concepts related to ecology and sustainability. In this way, children gain a deep understanding of nature, natural resources, and the importance of protecting the environment, preparing them to become responsible citizens who will promote sustainable practices in their later lives."*
*GT6: "To the extent that outdoor play promotes the whole development of the child, it can certainly contribute to sustainability."*
*GT13: "It is important because the child learns that we coexist with the environment, and therefore we must respect it."*

**Table 10**

*Teachers' Opinions on Areas Where Outdoor Play Education Should be Provided Outside of School*

| | | Turkish Participants | | | Greek Participants | | |
|---|---|---|---|---|---|---|---|
| **Theme** | **Subtheme** | **f** | **%** | **Participants** | **f** | **%** | **Participants** |
| Areas where outdoor play education should be provided outside of school | School garden (yard) and green areas (or nature areas) outside of school | 5 | 25 | T2, T3, T10, T13, T16 | 16 | 80 | T2, T3, T4, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T20 |
| | Green areas (or other areas) outside of school gardens | 15 | 75 | T1, T4, T5, T6, T7, T8, T9, T11, T12, T14, T15, T17, T18, T19, T20 | 4 | 20 | T1, T5, T18, T19 |

Table 10 shows that most Turkish teachers (n=15) believe outdoor play education should take place in green areas outside the school garden, while five suggest the school garden itself. Greek teachers (n=16) generally prefer outdoor play in areas outside the schoolyard, such as parks, forests, or museums, as public kindergartens in Greece typically lack separate gardens. None of the Greek teachers has mentioned solely the schoolyard.

Some sample answers from the teachers who have participated in the research are given below.

*TT2: "School gardens."*
*TT5: "Forest areas, camping areas."*
*TT12: "Play education in nature outside of school can be provided in areas such as parks, gardens, forests, next to schools, and farms."*

*GT2: "In formal and informal outdoor environments (parks, thematic museums, forest, etc.). It just needs sufficient time (excursions, etc.), if a teacher wants to approach them and think of practical issues, for example, the parents to escort them."*
*GT3: "It can take place in schoolyards, parks, forests, gardens, beaches, and generally in safe and natural spaces that enhance exploration and contact with the environment."*
*GT5: "Play education should take place in spaces that encourage freedom of movement, exploration, and contact with nature. Depending on the area and the needs, it can include parks, forests, rural areas, as well as urban spaces with natural elements, which offer opportunities for the development of children's skills and ecological awareness."*

## Discussion

This study underscores the importance of outdoor play in fostering sustainable child development, as viewed by preschool teachers in Greece and Turkey. Both emphasize its role in holistic growth, including cognitive, socio-emotional, motor, and environmental development. Greek teachers favor spaces outside school grounds due to limited facilities, while Turkish teachers advocate for green areas both within and beyond school boundaries. The shared belief in the role of outdoor play in building environmental awareness highlights its universal significance, calling for inclusive policies to expand outdoor learning using the natural and historical resources of both countries. Through digital platforms, teachers can exchange ideas on how cultural values intersect with education, ensuring that sustainability is taught in a culturally relevant way as cross-cultural studies are extremely useful to look at research from different socio-cultural perspectives and understand the whole picture in different international contexts for teacher education and outdoor play for sustainable development (Kabadayi & Skutil, 2024; Jurgena et al., 2024; Kukoja, 2019;Veisson & Kabadayi, 2018; Miškolci et. al., 2016). Eriksen (2013) emphasizes that internalizing sustainability as an intrinsic part of moral agency is something that should and, perhaps also must, start during the years of kindergarten and preschool. Children are always in need of playing. Nurmilaakso, (2015) maintains that for pre-school or primary school children, an older child, particularly of the same sex, can be

a very influential figure, especially if he/she is willing to spend time with his/her younger companion. In this case, it becomes the responsibility of the older pupil to get to know his/her younger siblings and his/her family, to escort him/her to and from school, play with his/her friends, teach him/her games and, last but least, become acquainted with his/her progress. Veisson and Kabadayi (2018) found that Estonian participants stated that important categories were teachers' education, partnership with a school, learning environment, values and value education, and the following education skills: pedagogical education of teachers, theoretical knowledge, lifelong learning, and play-based learning. Learning through play is also very important. Teachers should like natural sciences, activities in the forest, parks, near the sea and river. Ulavere and Tammik (2017) state that outdoor learning also provides for the shaping of social skills as outdoor relations are played out more visibly, enabling children to be more open and reveal their true nature by showing certain characteristics such as helpfulness. Outdoor learning also enables children to get to know each other better, achieve a joyous and close relationship with their peers, and engage in collaboration. Green (trees, bushes, flowers) houses, parks, playgrounds, parking spaces, quietness, pets, and large open spaces are common preferences among all groups of children. Ameli (2022) puts forward that the module "Nature and Outdoor Learning" explores nature through historical, cultural, philosophical, and Indigenous perspectives, focusing on student-led contributions like essays, videos, and discussions linked to sustainability and sensory connections to nature. It covers critical place-based learning and delves into topics such as Forest School and Outdoor Play. Saraiva et al. (2024) mentions that another important aspect of the game is played in groups. Using games that entail collaboration, such as team-based activities, elicits emotions more frequently and with greater intensity than individual games. Space refers to contextual factors, both in terms of the physical environment and the school atmosphere, as having a warm and friendly learning environment, free from bullying, with school vision and leadership, and open and green learning and playing spaces (Wanchana et al., 2020). The key principles of education emphasize fostering individuality, creativity, security, and success through play-based learning, valuing humane and democratic relationships, promoting health, collaborating with families, and respecting cultural diversity in both Estonian and foreign contexts (Ulavere &Tammik, 2017). Mitakidou and Tamoutseli (2011) found that the preferred image of the neighborhood as it emerged from the children's drawings included mainly homes, large streets, lots of trees, a lot of green, flowers, playgrounds, and no cars.

## Conclusion

The research has examined Turkish and Greek preschool teachers' views on outdoor play environments for sustainable child development using a qualitative case study approach. Most Turkish teachers (n=14) believe outdoor play

education should start at age 3 (e.g., "It can be given in educational institutions starting from the age of 3" – TT3), while most Greek teachers (n=9) advocate starting in infancy (e.g., "Education through outdoor play can begin in infancy" – GT3). These differences may stem from cultural, environmental, and academic factors (Goodnow et al., 1984; Baltaci & Sapsaglam, 2021). Outdoor play at an early age positively impacts environmental awareness, development, and life habits (Staempfli, 2009; Telama et al., 2005). Turkish teachers (n=11) emphasize outdoor play for fostering nature awareness, while Greek teachers (n=13) focus on environmental awareness. Froebel highlights that outdoor play helps children understand and care for nature (Tovey, 2007), a view supported by Chawla (1986) and Maynard and Waters (2007), who link outdoor activities to environmental and individual development. Regarding education leadership, most Turkish teachers (n=14) believe outdoor play should be led by teachers, with some involving families. Greek teachers (n=10) favor shared roles between families and teachers, with additional input from community agents. Teachers' responsibilities include preparing play environments, observing children, and guiding behavior (Davies, 1997). Teachers' perceptions significantly influence outdoor play opportunities (Logue & Harvey, 2009). The findings show that most Turkish preschool teachers (n=11) view parents' primary role in outdoor play as introducing children to nature, with nine emphasizing collaboration with teachers. In contrast, Greek teachers (n=18) focus on parents motivating and supporting outdoor play, with only two seeing them as role models or learning agents. Both groups emphasize the mediating role of parents in outdoor play, supported by research (Lee et al., 2021; Valentine & McKendrick, 1997). Parental encouragement and support influence children's participation in outdoor play (Brustad, 1993; Brustad, 1996). Most Turkish teachers (n=12) view planning activities as their primary role in outdoor play, with eight also emphasizing being role models. Greek teachers similarly focus on planning activities (n=14) and guiding through personal example (n=4). Research supports the importance of planning in outdoor play (Zahorik, 1970; McClintic & Petty, 2015). Teachers are seen as role models in early childhood (Bandura, 1977; Cheung, 2020; Chang-Kredl & Kingsley, 2014). Most Turkish teachers (n=18) believe local governments should create suitable outdoor play environments, with Greek teachers (n=17) also prioritizing safe spaces. Research highlights the importance of local governments in supporting physical activity (Edwards & Tsouros, 2006; Faskunger, 2013) and expanding outdoor play opportunities (Sapsağlam & Eryılmaz, 2024; Caldwell et al., 2024). The findings reveal that most Turkish teachers (n=7) view outdoor play inclusion in national programs as insufficient, while six find it sufficient, and others are unsure. Greek teachers are divided, with half (n=10) considering it inadequate and half finding it sufficient. Each early childhood program's outdoor environment is unique, influenced by stakeholders, funding, space, and philosophy, with outdoor play decisions typically made by teachers (McClintic & Petty, 2015). The new 2024 curriculum in Turkey and

Greece includes an "Outdoor Learning Center" (Ministry of National Education, 2024). Most Turkish teachers (n=17) believe outdoor play supports all child development areas, with some noting problem-solving (n=2) and motor skills (n=1). Greek teachers (n=15) similarly see outdoor play as enhancing overall development, particularly cognitive, socio-emotional, and motor skills. Outdoor play promotes physical exercise and development (Kemple et al., 2016; McClintic & Petty, 2015; Pesce et al., 2016). Most Turkish teachers (n=11) believe early outdoor play fosters environmental awareness, with Greek teachers (n=12) sharing similar views (Parsons, 2011; Thomas & Harding, 2011). Most Turkish teachers (n=15) prefer outdoor play in green areas outside school gardens, while Greek teachers (n=16) favor parks, forests, or museums, as public kindergartens lack separate gardens. Research supports natural outdoor environments, like parks and green areas, for play (Triguero-Mas et al., 2015; Malberg Dyg & Wistoft, 2018). Turkey and Greece offer excellent opportunities for outdoor play, with their climate, green areas, and historical heritage, fostering children's development and environmental awareness.

## Recommendations

In line with the research results, the following suggestions have been made to prospective teachers, teachers, academics, policy-makers, local government officials, educators, and parents: They are required to incorporate structured outdoor play activities into national preschool education programs, emphasizing their role in fostering holistic development, environmental awareness, and sustainable behaviors. In addition, they are required to provide teachers with training on designing and implementing outdoor play activities that align with sustainability goals, including place-based learning and environmental stewardship. Moreover, it is recommended that they encourage collaboration between educators, parents, local governments, and community organizations to create and maintain safe, engaging outdoor spaces for children. Furthermore, they are suggested to utilize rich natural landscapes and historical heritage of Greece and Turkey to enhance outdoor play experiences, promoting a deeper connection to local environments and cultures. They must also address the lack of adequate outdoor facilities by prioritizing investments in green spaces, parks, and outdoor learning centers within and around schools. Moreover, they are recommended to educate and engage families on the benefits of outdoor play, encouraging their active participation in outdoor learning initiatives to support children's development. In addition, they are offered to encourage further research on the impact of outdoor play on sustainable development and advocate for policies that support outdoor education as a vital part of early childhood learning.

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Correspondence concerning this paper should be addressed to Prof. Dr. Abdülkadir Kabadayı, Necmettin Erbakan University, Konya, Turkey. Email: akkabadayi03@gmail.com