

TEACHERS' BELIEFS ON NATURE AS A VALUE IN EARLY CHILDHOOD EDUCATION

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ABSTRACT

Values are fundamental in early childhood education, underpinning children's social, emotional, and moral growth. Teachers' beliefs play a role in how values are conveyed through educational practices, influencing curriculum development, daily interactions, and teaching methods. In Latvia, educational policy emphasizes the inclusion of ten core values, one of which is nature. This study aims to examine early childhood teachers' beliefs on nature as an educational value. A cross-sectional qualitative study was conducted using semi-structured interviews with 24 teachers from municipal and private early childhood education settings. Participants provided informed consent prior to participation, and online interviews were guided by a structured set of relevant questions. Data were analysed using an inductive thematic analysis framework.

The study highlighted teachers' recognition of the significant benefits nature offers for children's development in early childhood education. Teachers reported that outdoor experiences promote physical development by improving coordination, strength, endurance, and immunity. Emotional benefits included reduced stress, greater emotional stability, and increased independence. Cognitive gains were observed through enhanced concentration, curiosity, and problem-solving abilities. Additionally, nature was seen as promoting social skills such as empathy, cooperation, and reduced conflicts among children.

The findings confirm that nature is perceived as a fundamental value contributing to children's holistic development. However, to fully integrate nature into educational practices, it is essential to explore factors that influence its implementation. Addressing these factors may strengthen the promotion of nature as a core value in early childhood education.

Keywords: *early childhood education, early childhood teacher, nature, teachers' beliefs, value*

Introduction

Values are fundamental principles that influence human behavior, decision-making, and interpersonal relationships (Schwartz, 1992). In early childhood education, the integration of values plays a central role in promoting children's social, emotional, and civic development (Gökçe, 2021; Lovat, 2024). Simultaneously, introducing values

at an early stage helps establish the foundations for responsible, democratic, and socially cohesive societies (Cornelio et al., 2019; Ülavere & Tammik, 2017). Values are commonly understood as stable principles that serve as guidelines for action and as standards for evaluating what is considered good or desirable behavior (Halstead & Taylor, 2000). They influence how individuals relate to their environment, contribute to social cohesion, and guide ethical decision-making (Schwartz, 1992).

Within theoretical frameworks, values are often categorized into terminal and instrumental types. Terminal values represent the desirable end states individuals strive to achieve, such as happiness, freedom, and a sustainable society. Instrumental values, by contrast, are preferred modes of behavior that serve as means to achieve these end goals, including qualities like honesty, responsibility, and environmental stewardship (Rokeach, 1973). Emerging research also highlights the growing relevance of values associated with sustainability, collective responsibility, and ecological awareness in modern educational contexts (Osberg et al., 2024; Tuulik et al., 2016).

Values in early childhood education

Embedding values within education is essential as it promotes social peace, civic engagement, and the development of democratic principles (Cornelio et al., 2019; Gökçe, 2021). Shared societal values serve as the foundation for ethical conduct and collective progress (Kachur, 2021). Furthermore, legal and institutional frameworks reinforce the internalization of these values by embedding them within curricula and promoting societal sustainability (Kachur, 2021).

The early childhood period is particularly critical for value formation. During these formative years, children internalize fundamental principles through lived experiences, social interaction, and observing modeled behavior (Skriver Jensen & Broström, 2018; Ülavere & Tammik, 2017). Play-based and competence-oriented education approaches are particularly effective, as they promote the development of transversal skills linked to social and civic values (Oliņa et al., 2018). Learning environments that promote collaboration, respect for diversity, and shared responsibility contribute significantly to the development of children's ethical reasoning and a sense of social justice (Skriver Jensen & Broström, 2018).

Given the importance of early childhood in shaping values, the role of educators becomes especially significant. Teachers play a central role in the transmission and modeling of values within early childhood education (Gökçe, 2021). Their personal beliefs and attitudes shape the overall learning environment and influence how values are integrated into daily educational practices (Shirani & Mohamadi, 2021). Through informal interactions, emotional support, and the creation of inclusive classroom communities, teachers model fundamental values such as fairness, empathy, respect, and responsibility (Skriver Jensen & Broström, 2018; Ülavere & Tammik, 2017).

Additionally, teachers' selection of educational strategies, learning activities, and communication methods reflect their underlying value systems (Gökçe, 2021). Since children learn values both through explicit teaching and through everyday

interactions, understanding teachers' beliefs about values is essential for promoting effective value-based education.

Nature as a value in early childhood education

In recent years, particular attention has been given to the role of nature as a value in early childhood education. The natural environment is increasingly recognized not only as a setting for play but also as an essential component of children's holistic development. In educational contexts, "nature" and "natural environments" relate to spaces contrasting with urbanized and human-made environments, including forests, rivers, wetlands, and cultivated gardens (Picanço et al., 2024). Nature can be perceived simultaneously as an economic resource, an ecological system, and an aesthetic experience that promotes emotional connections (Udoudom, 2021).

Research highlights the positive impacts of engagement with nature on children's physical development, emotional well-being, and social competencies (Barrable & Booth, 2020). Nature-based play activities, such as free exploration and outdoor learning, promote motor competence, shape healthy living habits, and enhance cognitive flexibility and cooperative behaviours (Fermin et al., 2024; Johnstone et al., 2022).

Furthermore, direct interaction with natural elements stimulates curiosity, creativity, resilience, and problem-solving skills, which are considered essential competencies for promoting sustainable development (Dominguez Contreras & Krasny, 2022; Wojciechowski & Ernst, 2018). Nature provides rich sensory and experiential learning opportunities, allowing children to explore biodiversity, understand ecological cycles, and perceive the interconnectedness of living systems (Jansson & Lerstrup, 2021; Prins et al., 2022).

Several educational approaches integrate nature as a central educational resource. Forest pedagogy and Montessori education explicitly incorporate the natural environment into children's daily experiences, promoting empathy, responsibility, and environmental literacy (Barrable & Booth, 2020; Ozgen, 2023). These approaches recognize nature not merely as a setting but as an active agent in the learning process.

In addition to structured methods, outdoor learning activities such as gardening, recycling, and exploratory walks further reinforce respect for the environment and foster sustainable behaviors (Dovbnia & Otchenko, 2022; Poje et al., 2024). Educational initiatives that actively involve children in ecosystem protection cultivate a sense of ecological responsibility from an early age (Dominguez Contreras & Krasny, 2022).

Creative activities like storytelling, songs, and thematic play centered on natural elements also support children's understanding of biodiversity and environmental preservation (Heggen et al., 2019; King, 2024). Through these activities, young children develop an appreciation for the complexity and beauty of the natural world.

Establishing early emotional bonds with nature has lasting effects. Research shows that positive experiences with nature during the early years significantly influence individuals' environmental attitudes and behaviors later in life (Cerino, 2023; Chawla, 2020; Sobko et al., 2018). Joy experienced in natural settings, empathy towards living organisms, a sense of environmental responsibility, and an understanding of natural processes

are identified as key elements for fostering lifelong environmental stewardship (Chawla, 2020; Li et al., 2024).

In this broader context, it is important to examine how nature is conceptualized and valued within national education systems. Latvia has developed a comprehensive regulatory framework to support the integration of values within its education system (Ministru kabinets, 2016; Saeima, 1998), with a strong emphasis on fostering the moral development of learners in line with the values articulated in Satversme, the Latvian Constitution. Key legislative documents (Ministru kabinets, 2016) identify specific core values that education must promote, aiming to cultivate informed perspectives, responsible attitudes, and principled action among learners. These core values include life, human dignity, freedom, family, marriage, work, nature, culture, the Latvian language, and the State of Latvia.

Despite the formal recognition of nature as an essential educational value, there is limited empirical research examining how early childhood teachers in Latvia perceive and promote nature within their professional practice. Addressing this gap, the present study aims to investigate early childhood teachers' beliefs about nature as a value, with a particular focus on their perceptions of the developmental benefits for children when nature is emphasized in educational activities.

Methodology

This study forms part of a larger research project examining the actualization of values in the professional practice of early childhood teachers. Ethical approval for the research was granted by the Research Ethics Committee of Riga Technical University (Decision No. 04000-10.2.3-e/6, dated 10 March 2025).

A qualitative cross-sectional study was conducted involving teachers implementing early childhood education curricula in municipal and private educational institutions. Participants were required to have a minimum of one year of teaching experience in early childhood education and to be recommended by an educational institution administrator. Teachers who specialized in specific subjects (e.g., music or physical education) were excluded due to the specialized nature of their roles and the fact that they do not work full-time within early childhood education units. A total of 24 early childhood teachers participated in the study; all were female, aged between 25 and 74 years ($M = 45.75$, $SD = 11.58$). Teaching experience varied, with 20.8% of participants having 1–5 years of experience and 33.3% having more than 20 years. All regions of Latvia were represented, with the majority (45.8%) working in Riga, the capital city.

Data collection occurred between January and February 2025. Potential participants were identified by contacting educational institution administrators via email and telephone. Upon receiving administrators' recommendations, prospective participants were provided with detailed information outlining the purpose of the study, the voluntary nature of participation, confidentiality assurances, and key interview topics. Participants were asked to complete an online sociodemographic questionnaire, collecting information on gender, age, education level, and teaching experience in early childhood

education, while simultaneously providing informed consent. To ensure anonymity while enabling data management, participants generated a personal code composed of four characters, which was used to link their demographic and interview data without revealing personal identities.

Semi-structured interviews were conducted to investigate teachers' beliefs regarding nature as a value in early childhood education. An interview guide developed by researchers structured the conversations. Interviews were conducted online via Zoom, lasting between 30 minutes and one hour, depending on the participant's responses and engagement. Interviews were recorded with participant permission and subsequently transcribed using Tilde Transcribe, a transcription software developed for processing Latvian-language texts.

Data were analysed using inductive thematic analysis, following the six-phase method established by Braun and Clarke (2006). While the overall thematic scope was informed by the research aim, the primary codes and subthemes emerged inductively from the interview material. The analysis proceeded through the following steps: (1) familiarization with the data, by repeated reading of the transcripts; (2) generating initial codes, where meaningful data segments were systematically labelled; (3) searching for subthemes, by organizing codes into potential subthemes reflecting shared meanings; (4) reviewing themes, ensuring internal coherence and distinction between themes; (5) defining and naming themes, to refine thematic boundaries and identify subthemes; and (6) producing the final report, by integrating data excerpts to support interpretation.

The coding process was implemented independently by both researchers to enhance scientific rigor. Triangulation of researcher perspectives helped resolve discrepancies and achieve a shared interpretation of the data.

Results

Exploring teachers' beliefs, thematic analysis specifically addressed the benefits of promoting nature as a value in early childhood education environments. To answer the research question "What are the benefits of promoting nature in early childhood settings?", teachers were asked to reflect on their perceptions of nature's developmental impact on children. Thematic analysis resulted in 58 text units, which were grouped into 14 primary codes and organized under four overarching subthemes: (1) nature's impact on physical development, (2) emotional and psychological well-being, (3) cognitive and learning skills, and (4) social skills and cooperation.

Teachers widely recognized that nature, when integrated meaningfully into daily early childhood education experiences, contributes to children's holistic development. They emphasized nature's importance not just as a context for play, but as a value-laden educational agent that fosters responsibility, sensitivity, and personal growth. One respondent explained that nature "is not just somewhere we go, it is part of how we teach children to be humans who notice, care, and act." These beliefs reflect the view that nature, as a value, encompasses physical experiences, emotional understanding, and social responsibility.

Teachers most frequently referred to nature's role in supporting physical development. Observations included improved balance, coordination, strength, and resilience. Daily movement in outdoor environments was seen as beneficial for gross motor skills and immune function. One teacher explained, "Children who spend a lot of time outdoors in all weathers are sick less often and are more alert." Others highlighted the value of unstructured movement: "Natural movement activities like running, climbing, or jumping over puddles let children test their physical abilities in ways we cannot replicate indoors." The use of natural materials such as stones, sticks, pinecones was also seen as enriching fine motor skills and imagination simultaneously.

In addition to physical growth, teachers emphasized nature's emotional and psychological benefits, particularly its calming and restorative effects. Nature was viewed as a space where children could express emotions freely, experience joy, and develop confidence. As one participant put it, "In nature, children create games from natural materials, invent new stories and use their imagination much more than indoors." Several noted that being outdoors helped children develop greater emotional stability and self-regulation, especially those with behavioral or attention difficulties. Others observed that the natural environment promotes independence and initiative: "You don't need to tell them what to do, if the space is open, children find what excites them, and you see a new confidence emerging."

Teachers also strongly emphasized the cognitive and learning value of nature. Many described how outdoor settings encourage exploration, curiosity, and critical thinking. Through open-ended play and sensory experiences, children are encouraged to observe, question, and draw conclusions. One participant shared, "Exploring nature develops the ability to think independently and find solutions to unexpected situations." Activities such as investigating puddles, observing seasonal changes, or sorting leaves and seeds were seen as foundational for scientific reasoning. Several teachers highlighted how nature provides an integrative learning context: "We connect language, math, and science with what we see outdoors. Children learn without even realizing they're learning." In one example, children used natural pigments from rose hips and yarrow to create colors and compared results: "They see how nature changes and they remember more when they see it in real life."

The final theme focused on social skills and cooperation, where nature was viewed as a setting that encourages empathy, sharing, and reduced conflict. Outdoor environments, teachers explained, offer space and variety, allowing children to self-regulate and collaborate more easily. "Children are less likely to argue and conflict outdoors because they have more space and choice of activities." Some described how contact with nature teaches responsibility: "When they help feed the birds or water the plants, they understand that their actions matter." Others noted how outdoor experiences fostered deeper connections among children: "Being outside together builds trust. You can see friendships forming in the way they cooperate with the leaves, or build shelters, or share tools."

Teachers also reflected on the moral and ethical implications of emphasizing nature as a value. Nature was not only seen as promoting personal development but also as fostering respect and stewardship. Children were frequently involved in recycling activities,

litter collection, and wildlife observation. “We teach them that every action has a consequence: if they throw something on the ground, they see birds picking it up.” This active engagement was framed as cultivating long-term environmental responsibility. Teachers thus positioned nature not simply as a learning resource, but as a relational space that fosters social and ecological consciousness from an early age.

In summary, the teachers in this study perceived nature not only as beneficial to children’s development but as essential to value education in early childhood. The text units analyzed revealed a consistent belief that nature enhances children’s well-being, cognitive growth, and social relationships while promoting environmental awareness and ethical responsibility. These insights underscore the importance of recognizing and supporting nature as a core educational value that aligns closely with the goals of holistic, democratic, and sustainability-oriented early childhood education.

Discussion

This study examined early childhood teachers’ beliefs about the benefits of promoting nature as a value. Teachers emphasized that nature has a key role in diverse areas of children’s development. The findings support previous research while offering deeper insights into teachers’ practical experiences.

Natural environments were widely recognized by early childhood teachers as essential for children’s physical development. Outdoor spaces inherently encourage unstructured physical activities such as climbing, running, and balancing, i.e., movements that are often limited in indoor settings. These gross motor activities foster muscle strength, coordination, and endurance while also promoting immune system development and physical resilience. Several teachers highlighted that natural environments with uneven terrain and organic play structures stimulate a broader range of physical skills. Their observations align with previous studies indicating that nature-based activities support motor competence through varied physical challenges (Raje & Ojha, 2022). Teachers also noted that children who regularly play outside tend to regulate their energy better and display more balanced activity-rest cycles. In addition, research has shown that outdoor activity significantly increases overall physical activity levels and contributes to healthier growth and reduced risk of obesity (Zhang et al., 2023).

Teachers consistently described nature as a powerful regulator of children’s emotional states, noting that outdoor environments help children relax, express themselves more freely, and show fewer behavioral outbursts. Natural settings were seen as emotionally stabilizing, offering children a safe space for stress relief and self-regulation. Several educators observed that children who engage with nature regularly tend to be happier, more independent, and less reactive to minor frustrations. They also noted that emotionally sensitive or socially withdrawn children often became more expressive and confident in outdoor contexts. These observations are supported by Goh et al. (2023), who found that exposure to natural scenery, especially when combined with human-animal interaction, enhances affective well-being by increasing positive emotions and reducing negative

ones. Similarly, Sella et al. (2023) concluded that forest school settings foster creativity, improved behavior, and psychological resilience, underscoring nature's essential role in nurturing emotional stability and healthy development in early childhood.

Teachers emphasized that natural environments significantly enhance children's cognitive development by fostering attention, curiosity, and problem-solving. Outdoor settings offer open-ended stimuli such as textures, sounds, and living organisms that support exploration and inquiry-based learning. Educators observed that children in nature display heightened focus, verbal expression, and initiative, which are key to developing early scientific thinking and language skills. These observations are supported by Kamal and Gabr (2023), who highlighted how flexible play in nature strengthens problem-solving and cognitive flexibility. Jiang and Hussain (2023) further noted that activities such as gardening or hiking promote critical thinking and adaptability through experiential learning. Additionally, Prins et al. (2024) found that natural environments stimulate language production, as children use observation and interaction to ask questions and share ideas. Overall, nature was seen not only as a play space but also as a dynamic context for cognitive growth and deeper understanding.

Teachers described natural environments as rich settings for fostering children's interpersonal and cooperative skills. Compared to structured indoor settings, outdoor spaces offer freedom of movement and open-ended resources that naturally encourage collaboration and reduce conflict. Educators noted that children frequently engage in group activities such as building shelters, caring for animals, or exploring together, which require negotiation, turn-taking, and mutual problem-solving. These shared experiences were viewed as critical for developing empathy, patience, and respect for others. Alme and Reime (2021) also highlighted that nature-based learning enhances participation and shared responsibility among young children. Similarly, Somadayo et al. (2022) emphasized that interactive experiences in nature support emotional bonding and communication skills. Teachers observed that nature-based tasks gave children a sense of belonging and responsibility, reinforcing their understanding of interdependence. Through these encounters, children not only strengthen social competence but also internalize ecological and ethical values central to early development.

Several limitations of the study should be acknowledged. First, early childhood teachers from rural areas, who often have daily access to diverse natural environments surrounding their educational institutions, were not represented in the sample. Their absence may have limited the range of perspectives on how proximity to nature shapes the integration of nature-based values in educational practice. Second, the relatively small sample size, while sufficient for qualitative inquiry, restricts the generalizability of the findings. Although thematic saturation was largely achieved, involving a larger and more geographically diverse group of respondents could have enriched the dataset and revealed further nuances or divergent experiences. Third, the study relied exclusively on self-reported perceptions collected through interviews. This method may be influenced by social desirability bias, particularly given the increasing societal and institutional emphasis on sustainability and ecological values. Fourth, the sample consisted exclusively

of female teachers. While this reflects the gendered reality of the early childhood education profession in Latvia, the absence of male voices leaves unexplored how gendered perspectives may shape the interpretation and transmission of nature as a value. Finally, the study focused on beliefs and perceived practices rather than direct observation of educational settings. Future research incorporating observational or mixed-methods approaches would offer deeper insights into how nature-related values are enacted in everyday educational activities.

Conclusions

The study provides valuable insights into early childhood teachers' beliefs and attitudes toward nature as a value to be integrated into early childhood education. Teachers highly appreciate the role of nature and recognize that children's understanding of nature as a value develops through direct experiences in natural environments. Emphasizing nature as a core value positively influences children's physical, emotional, and social development by enhancing their health, self-confidence, and cooperation skills.

Future research should further examine teachers' needs and identify effective pathways for strengthening value-based education in early childhood settings, with a particular emphasis on nature. It is also important to address the potential challenges and barriers to actualizing nature as a value in early childhood educational practice.

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