



Learning beyond walls: The imperative for recognising outdoor practices in the curriculum

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Introduction

The last decade has witnessed a surge in various forms of outdoor practices, responding in part to a growing concern about children's changing relationship with their environment,¹ as well as the startling loss of nature as a consequence of the Anthropocene.² The efforts, however, remain marginal and unequal. According to a global survey spanning 44 countries between 2017 and 2018, two thirds (65%) of primary teachers worldwide reported that children in their schools receive less than one hour of outdoor playtime a day, with 12% actually indicating that children get less than 30 minutes.³ Paradoxically, 97% of these teachers also acknowledged the critical importance of outdoor play throughout the day for children to realise their full potential. In line with this perspective, the Blaggrave report on The Existing Evidence-Base about the Effectiveness of Outdoor Learning highlighted that nearly all outdoor learning interventions yield positive effects, and that long-term interventions and multi-day activities demonstrate a more robust impact compared to shorter ones.⁴

As outlined by the DEN research report, outdoor pedagogies have a rich history that spans over centuries and continents.⁵ From environmental education to forest schools, beach schools, and wilderness camps, each approach contributes uniquely to fostering a connection with the environment in which the learning process takes place, while promoting individual, social, and ecological well-being. The question today revolves around the importance of recognising these and other ways of learning outside as an integral part in school curricula – including in more urban settings – as a means to address several of the adverse effects of an education environment exclusively confined indoors. Indeed, outdoor education is associated with numerous benefits, enhancing learners' overall development, well-being, environmental awareness, and social skills. As such, QUEST believes outdoor practices should be promoted through:

¹ Richard Louv's book *Last Child in the Woods* (2005) popularized the term 'nature deficit disorder', shedding light on the loss of physical contact and of symbolic representations of nature for contemporary children ; an observation endorsed by other studies which have revealed a declining and unequal access to natural environments (Rice and Torquati 2006) as well as an depletion of nature-related language (Macfarlane and Morris 2017).

² Heather Davis and Zoe Todd, "On the Importance of a Date, Or, Decolonizing the Anthropocene", *ACME: An International Journal for Critical Geographies* 16, no. 4 (2017): 761-80.

³ Cath Prisk and Harry Cuswortha, "From muddy hands and dirty faces... to higher grades and happy places, Outdoor learning and play at schools around the world", *Outdoor Classroom Day* (2018).

⁴ Caroline Fiennes et al., "The Existing Evidence-Base about the Effectiveness of Outdoor Learning," *UCL Institute for Education, Institute for Outdoor Learning, The Blaggrave Trust, and Giving Evidence* (2015).

⁵ Paone et al., "Research Report on Democratic Education in Nature" (2023).





1. The **integration of at least 2 hours of outdoor time per week** (outside breaks and physical education) **into curriculum standards** – so as to make sure outdoor learning is considered an essential part of the education experience.
2. **Teachers' training and professional development** – so that educators are confident and competent in incorporating outdoor practices into their teaching.
3. Leaving room for the **exploration and establishment of fertile outdoor learning environments** – enabling daily contact and connection between children, youth, and nature in its broadest sense.
4. **Ensuring childrens' and learners' participation in shaping outdoor activities** – in order for their needs and considerations to be heard and incorporated in the curriculum, within a self-directed learning perspective.

The potential of a minimum of 2 hours a week learning outdoors

The proposal to integrate a minimum of 2 hours of outdoor learning into the curriculum aligns with multiple proven benefits. On the one hand, research indicates that spending a minimum of 120 minutes per week in natural environments is associated with consistently higher levels of health and well-being across a diverse adult population, underscoring the significance of direct recreational contact with nature.⁶ Another study investigating higher education settings suggested the restorative potential of nature-based interventions to enhance positive states in students such as vitality.⁷ On the other hand, nature-based education, defined as active learning in natural settings for children and teenagers,⁸ nurtures holistic development by providing a rich context for hands-on learning experiences that promote cognitive development, concentration, language skills, creativity, and critical thinking.⁹

⁶ Mathew P. White et al., "Spending at least 120 minutes a week in nature is associated with good health and wellbeing," *Scientific Reports* 9, no. 7730 (2019).

⁷ Topaz Shrestha et al., "Natural or Urban Campus Walks and Vitality in University Students: Exploratory Qualitative Findings from a Pilot Randomised Controlled Study," *International Journal of Environmental Research and Public Health* 18, no. 2003 (2021).

⁸ Daniel R. Meier and Stephanie Sisk-Hilton, eds. *Nature Education with Young Children* (Routledge eBooks: 2013).

⁹ See for instance these three sources among many:

Ingunn Fjørtoft and Jostein Sageie, "The Natural Environment as a Playground for Children," *Landscape and Urban Planning* 48, no. 1–2 (April 1, 2000): 83–97

Ruth Ann Atchley, David L. Strayer, and Paul Atchley, "Creativity in the Wild: Improving Creative Reasoning through Immersion in Natural Settings," *PLOS ONE* 7, no. 12 (December 12, 2012): e51474.





Some critics may argue that time spent outdoors may divert attention from essential academic subjects. However, research conducted by QUEST emphasizes the symbiotic relationship between outdoor time and experiential learning is very positive, and the integration of outdoor practices transforms existing learning experiences, infusing them with practical applications that deepen understanding and retention.¹⁰ Moreover, outdoor learning fosters an understanding of the interplay and relationship between different curriculum areas. This awareness not only promotes lifelong learning but also instills a love for outdoor activities that children and youth can carry into adulthood.¹¹

Outdoor practices and educators' and learners' well-being

We assert that recognising outdoor practices in the curriculum extends beyond structured physical education. Instead, it should be seamlessly integrated into the program, permeating all subjects and processes. For that, it is paramount to implement comprehensive training programs and professional development for teachers to equip them with the skills and knowledge needed to facilitate effective outdoor learning experiences for their students. By these means, educators in urban or rural contexts that are not familiar with nature-based methodologies will understand the manifold possibilities that come with learning outdoors, develop lesson plans suitable for outdoor settings, manage safety considerations and, more generally, they will be in a better position to acknowledge the interconnectedness of physical and mental health with academic success.

In fact, the benefits of outdoor practices in terms of health, well-being extend from students to teachers, enriching the relationship and experience of learners and educators alike. Those benefits have been widely documented in the scientific literature, with studies highlighting the fundamental impact of exposure to nature, whether through virtual means (such as pictures, videos, recorded sounds) or experiential activities like walks, swimming in the sea or wilderness camps, on physical and mental well-being. Empirical evidence demonstrates its effectiveness in reducing inflammation of the central nervous system, lowering stress levels and

Sonya Nedovic and Anne-Marie Morrissey, "Calm Active and Focused: Children's Responses to an Organic Outdoor Learning Environment," *Learning Environments Research* 16, no. 2 (March 10, [2013](#)): 281–95.

¹⁰ Paone et al., "Research Report on Democratic Education in Nature."([2023](#)).

¹¹ Natural England, "Childhood and nature: a survey on changing relationships with nature across generations," *Natural England* ([2009](#)).





alleviating anxiety.¹² What is more, outdoor experiences contribute to improvements in sleep quality, fitness, motor skills and cardio-respiratory health.¹³

Nature as teacher : The value of diverse outdoor learning environments

Nature is everywhere. We just need to learn – and to teach children and youth – to see it. This begins with the way we tend to define nature, as pristine wilderness or as that which is untouched by humans.¹⁴ On the contrary, nature is anywhere where life thrives, even in a neglected patch of plants flourishing in urban environments. As educators, we should encourage students to interact and learn from this nature as well. What is more, this makes it no longer necessary to travel to a large nature reserve for students to engage with nature, but simply to explore the (hidden) places where nature is still present, inside or outside the school grounds.

Investing in designated outdoor learning spaces within school premises and enabling students to venture beyond traditional classrooms goes beyond offering alternative educational settings. It strategically aligns with empirically supported advantages linked to heightened environmental awareness and ecological behavior. Indeed, while some may argue that addressing environmental concerns is more effective through specialised courses, QUEST strongly advocates for the importance of providing a trans-disciplinary and experience-based comprehension of socio-ecological issues. By acting as a bridge connecting theoretical knowledge with real-world applications, outdoor practices cultivate a deeper understanding of ecological systems. In essence, their integration into the curriculum becomes pivotal for instilling a sense of responsibility and belonging, establishing a connection with

¹² See for instance these three publications among many:

Marion E. Frank et al., "Immunization with *Mycobacterium Vaccae* Induces an Anti-Inflammatory Milieu in the CNS: Attenuation of Stress-Induced Microglial Priming, Alarmins and Anxiety-like Behavior," *Brain Behavior and Immunity* 73 (October 1, [2018](#)): 352–63.

Mitsuru Emi et al., "Psychological Effects of Forest Environments on Healthy Adults: Shinrin-Yoku (Forest-Air Bathing, Walking) as a Possible Method of Stress Reduction," *Public Health* 121, no. 1 (January 1, [2007](#)): 54–63.

Richard M. Ryan et al., "Vitalizing Effects of Being Outdoors and in Nature," *Journal of Environmental Psychology* 30, no. 2 (June 1, [2010](#)): 159–68.

¹³ Q. Li et al., "Effect of Phytoncide from Trees on Human Natural Killer Cell Function," *International Journal of Immunopathology and Pharmacology* 22, no. 4 (October 1, [2009](#)): 951–59.

Thieu X. Phan et al., "Intrinsic Photosensitivity Enhances Motility of T Lymphocytes," *Scientific Reports* 6, no. 1 (December 20, [2016](#)).

Casey Gray et al., "What Is the Relationship between Outdoor Time and Physical Activity, Sedentary Behaviour, and Physical Fitness in Children? A Systematic Review," *International Journal of Environmental Research and Public Health* 12, no. 6 (June 8, [2015](#)): 6455–74.

¹⁴ William Cronon, "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature," *Environmental History* 1, no. 1 (January, [1996](#)): 7-28.





the world we all share among humans and with other species,¹⁵ and facilitating the alignment of curricula with the pressing need to transform education systems to actively contribute to the fight against climate change.¹⁶

Democratic education and outdoor practices : A fertile encounter

When feasible, outdoor practices should also be employed as part of a necessary shift towards fostering more self-directed learning within the school. As a matter of fact, encouraging and facilitating children's active participation in shaping outdoor activities provides a tailored learning experience that boosts motivation, decision-making skills, and creativity, building a sense of ownership and responsibility. These sets of skills are in line with those developed through democratic education in schools and democratic education in nature, as demonstrated by extensive research in which QUEST participated.¹⁷ Indeed, democratic education in nature yields broad societal benefits, by creating a context for cohesion and integration where differences can be more readily embraced as opportunities for growth rather than conflict.¹⁸ Studies affirm that nature enhances self-esteem and confidence and alleviates loneliness particularly in youth,¹⁹ providing a nurturing environment where children feel a sense of belonging and learn to navigate risks.

Moreover, statistical evidence indicates a decrease in aggression and an increase in kindness among children who spend time outdoors, enhancing their capacity to cooperate and communicate effectively. Additionally, a 2016 study by the Institute

¹⁵ Pamela Pensini, Eva Horn, and Nerina Jane Caltabiano, "An Exploration of the Relationships between Adults' Childhood and Current Nature Exposure and Their Mental Well-Being," *Children, Youth and Environments* 26, no. 1 (January 1, [2016](#)): 125. and Kumara S. Ward. *Econnection in Early Childhood Education: Synergies in Inquiry Arts Pedagogies and Experiential Nature Education* (Western Sydney University, [2017](#)).

¹⁶ See, for instance, the [Manifesto on Quality Climate Change Education for All](#), drawn up by Education International on the need to transform education systems to catalyze the fight against climate change.

¹⁷ The European Democratic Education Community defines democratic education as the children's right to "make their own choices regarding learning and all other areas of everyday life [...] so long as their decisions do not infringe on the liberty of others to do the same [...], and to have an equal share in the decision making as to how their organisations – in particular their schools – are run, and which rules and sanctions, if any, are necessary."

¹⁸ Paone et al., "Research report on Democratic Education in Nature," *European Commission* ([2023](#)).

¹⁹ Jo Barton and Jules Pretty, "What Is the Best Dose of Nature and Green Exercise for Improving Mental Health? A Multi-Study Analysis," *Environmental Science & Technology* 44, no. 10 (May 15, [2010](#)): 3947–55 and Thomas Astell–Burt et al., "Green Space and Loneliness: A Systematic Review with Theoretical and Methodological Guidance for Future Research," *Science of the Total Environment* 847 (November 1, [2022](#)).





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for European Environmental Policy (IEEP) shows that natural environments can contribute to heightened social cohesion, reduced social tension, and strengthened community attachments, aiding the integration of individuals from minority groups with cultural backgrounds.²⁰ If some may argue that interpersonal skills can be developed through traditional classroom group projects, we align with the Institute of Outdoor Learning in asserting that the dynamic and unpredictable nature of outdoor challenges offers a unique setting for refining teamwork, leadership, solidarity, and cooperation skills, preparing students for real-world problems.²¹

Conclusion

A wealth of evidence underscores that outdoor practices not only complement traditional learning methods but also effectively prepare students for the complexities of the 21st century. Globally, outdoor learning fosters connections that cultivate respect and care for the natural world. Societally, it contributes to the development of a sense of place, fostering greater engagement within communities. On an interpersonal level, outdoor education provides a secure and supportive setting to enhance social skills, cultivate an appreciation for diversity, and encourage meaningful relationships across generations, promoting tolerance, respect, and kindness. At the individual level, it enhances physical and mental health, leading to lifelong participation, the development of critical thinking skills, resilience, and positive risk-taking.

In light of this compelling evidence, we assert that the educational journey for every child in Europe and beyond must incorporate a series of well-planned, high-quality outdoor learning experiences seamlessly embedded in the curriculum. This recognition provides relevance and depth in ways that are difficult to achieve within the confines of indoor classrooms. To facilitate this transformative approach, teachers and educators should undergo proper training and support to ensure that regular, enjoyable, and challenging opportunities outdoors are accessible to all children and youth. Moreover, the latter should actively participate in shaping the outdoor activities they engage in, within a democratic education framework that prepares them not only academically but also as future citizens.

²⁰ European Commission, Directorate-General for Environment, Twigger-Ross, C., Kuipers, Y., Schweitzer, J. et al., "The health and social benefits of nature and biodiversity protection – Final report," Publications Office (2016).

²¹ According to the Institute of Outdoor Learning (2021).

