COVID-19, weather conditions, and educators' motives - Factors shaping the provision of Forest and Nature School: Outcomes from a French-based study

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Abstract

Forest and Nature School, a form of outdoor nature-based education, has been gaining momentum globally, including in France, where interest in alternative, experiential pedagogies is on the rise. In November 2022, an online survey was conducted to explore the operations and practices of private Forest and Nature School programs within the French context. The study gathered responses from 24 educators representing 21 active programs and two in development. This paper draws on the study's findings to highlight three key factors influencing the provision of private Forest and Nature School initiatives in France: the impact of the COVID-19 pandemic and weather-related conditions, as well as the personal motivations of educators to engage in outdoor teaching. These factors are examined through the lens of relevant literature. Finally, the paper offers recommendations for future research and practical considerations for stakeholders interested in advancing nature-based education in France and beyond.

Keywords: Forest School, outdoor learning, COVID-19, weather conditions, life experience, France

Introduction

The contemporary concept of Forest School, a form of outdoor nature-based education (ONBE), has been gaining ground across the globe (Knight, 2016). In the French context, Martel and Wagnon (2022) proposed that open-air programs have been operating from the beginning of the 19th century mainly to fight tuberculosis. Others were pedagogically oriented and aimed to engage children in direct real-life experiences. Still, French Forest School movement hasn't taken momentum until lately unlike the neighboring British and Scandinavian settings where this and similar ONBE programs have been prevalently implemented for many decades (Knight et al., 2024). One key factor behind the recent surge in French outdoor educational initiatives is the health crisis brought on by the COVID-19 pandemic (Besse-Patin et al., 2021; Clerquin & Sastourné-Arrey, 2022; Zwang et al., 2021). A subsequent cause could

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be the French Ministry of National Education and Youth's (MENY) recent recommendation for increasing outdoor green spaces around schools (MENY, 2023). Likewise, in December of 2023, a recommendation of law was presented at the French National Assembly endorsing a half a day per week dedicated to outdoor education (i.e., *classe dehors*) in the public school system (Bonvarlet, 2023). This impetus toward outdoor education appears to have also instigated research examining different aspects of outdoor learning, mostly within the French public school system (Girault & Galvani, 2021; Zwang & al., 2021; Tocquer, 2023; Nicolas, 2024; Nicolas & Boelen, 2024).

The purpose of the primary research study

A review of the literature reveals that, besides a few pertinent resources, such as Verdier (2023) and Jacq & al. (2024) that explored extracurricular initiatives that call themselves Forest School programs, little is known in regard to the operation of the French Forest and Nature School[1] (FNS) private programs. To address this research gap, I co-conducted an online survey study involving FNS educators as participants, aiming to examine the overall operations of their private programs in France. More specifically, this pioneering nationwide study aimed to shed light on several aspects, including (a) the key characteristics of French FNS programs; (b) implementation challenges; (c) the impacts on participating children (Dabaja & Nicolas, 2024); (d) the potential of FNS to contribute to various Sustainable Development Goals (Dabaja, 2025); (e) the effects of weather conditions and (f) the COVID-19 pandemic on programs' operations; and (g) the motivations behind participants choosing to become outdoor educators.

In this paper, I draw on outcomes from the larger French-based study to focus on three key aspects: (1) the effects of weather conditions and (2) the impact of COVID-19 on programs' operations, and (3) the motivations driving participants to engage in outdoor education. The decision to explore these dimensions was multifaceted. First, a review of the literature revealed that, although numerous studies have examined the effects of COVID-19 on teaching practices worldwide (e.g., Abdelaziz et al., 2023; Carroll & Constantinou, 2023; Echeverría et al., 2022; Philippakos et al., 2022; Sandvik et al., 2023), little research has specifically addressed its impact on FNS programs. Similarly, there is a notable gap regarding why individuals choose to become outdoor educators. Furthermore, given that the implementation of FNS programs is highly context-dependent (Knight et al., 2024), investigating how weather conditions influence the delivery of FNS sessions in France provides valuable insights. The outcomes presented here aim to enrich the literature on how these three factors have shaped—and continue to shape—the practice of FNS.

Literature review

Forest and Nature School

Demarcating the nature of Forest School has been the object of an ongoing debate (Cree & McCree 2013; Knight 2018; Leather 2018; Waite & Goodenough, 2018). Yet, Forest School – or FNS – can be described as a form of ONBE through which children frequently visit a specific natural place for an extended time to engage in a multitude of outdoor activities (Boileau & Dabaja, 2020; Dabaja, 2022a, 2022b). This form of education is mainly underpinned by the (1) inquiry-based learning approach motivated by the children's curiosity and interest, (2) experiential learning approach (i.e., learning by doing), and (3) place-based[2] learning approach (Child

[1] The term *Forest School* is prevalently used worldwide. However, other names are also employed to refer to ONBE programs that adopt similar philosophy, such as *Bush School; Forest/Nature School; Desert School;* and *École en nature/École-forêt* (in the French context). In this article, I use the terms *Forest School* and *Forest and Nature School* interchangeably.

[2] Yemini et al. (2023) proposed that "Place based education (PBE) is a pedagogical approach that emphasises the connection between a learning process and the physical place in which teachers and students are located. It incorporates the meanings and the experiences of place in teaching and learning, which can extend beyond the walls of the school." (p. 1).

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and Nature Alliance of Canada, 2024; Forest School Association, n.d.).

The literature has suggested that engaging in FNS could benefit the children's (1) social and cooperative skills; (2) physical skills; (3) self-confidence and self-esteem; (4) learning performance and cognitive skills; (5) emotional and mental wellbeing; (6) risk management skills; and (7) environmental awareness and sense of belonging (e.g., Dabaja, 2022a, 2022b; Knight et al., 2024; Sella et al., 2023; Waite et al., 2016). Furthermore, Forest School was proposed to have impacted the involved educators and their teaching (Dabaja & Yilmaz-Uysal, 2023). Harper (2017) suggested that '[p]edagogically, [Forest School] disrupts the traditional role of teacher in school' (p. 321) where educators tend to perceive themselves as facilitators of the children's learning (Murphy, 2018) rather than knowledge holder (Harris, 2017). At Forest School, educators create an atmosphere conducive to learning where children are encouraged to explore and investigate (Elliot et al., 2014; Harris, 2018). Finally, FNS was proposed to engender a positive effect on the children's families who start to show more interest in visiting natural places which in turn helped to create stronger bonds among its members (Dabaja & Yilmaz-Uysal, 2023).

Despite its promising outcomes, the sustainable implementation of FNS and its ethos appeared to face several barriers across contexts. These obstacles encompassed (1) the adults' risk perceptions and attitudes associated with Forest School outdoor activities; (2) securing needed funding; (3) meeting curriculum and stakeholders' expectations; (4) finding an appropriate site; and (5) performing administrative tasks (Dabaja, 2024; Waite et al., 2016; Whincup et al, 2021).

Lately, there has been some criticism regarding the lack of a clear theoretical framework underpinning the FNS pedagogy (Leather, 2018). To address this gap, Knight et al. (2024) extensively drew on relevant literature to propose an interdisciplinary theoretical framework that aims to "explain[…] the varied benefits of Forest School [… and] offer[…] researchers a clear model to examine [its] practices." (Knight et al., 2024, p. 917). The authors argued that Forest School is a *socially constructed* approach to outdoor education, especially when it comes to its adaptability to the different education settings where it is implemented. Moreover, they proposed that *social constructivist experiential learning* is the main pillar of Forest School pedagogy from which stems *play* and *biophilic* interaction. Through the experience of play come the two constructs of *risk* and *creativity* that support the positive impact of Forest School on the participants' physical skills, mental health, and learning experience. *Biophilic* interaction, in turn, is shaped by two components, the Nordic notions of *friluftsliv* (i.e., the cultural roots of Forest School) and the place *attachment*. The latter two components involve regular engagement with the natural environment, fostering environmental awareness and a sense of connection to place.

COVID-19 and the outdoors in French schools

Cases of novel coronavirus (COVID-19) were first detected in China in December 2019. It then spread rapidly across the globe. On March 11th 2020, the World Health Organization (WHO) characterized the outbreak as a pandemic (WHO, n.d.a). Around 7 million people have lost their lives to COVID-19 across the globe. France was severely hit by the pandemic with around 168000 deaths attributed to the virus (WHO, n.d.b). Similar to the rest of the world, French officials had taken precautionary measures to mitigate the spread of the virus among its residents through mandating, among others, social distancing (Pezet, 2020), lockdowns, the wear of masks, and vaccination (Lafon, 2023).

The French education system was also impacted by the pandemic. The MNEY had disseminated several health protocols to guide the operation of schools and other educational establishments in the context of COVID-19. In its protocol published in November 2020 and destined for the 2020-2021 school year, the MNEY prescribed a social distancing of one meter only for preschoolers who do not belong to the same group. Wearing a mask for preschoolers was prohibited whether in- or outdoors. In elementary, middle, and high schools, social distancing of 1 meter – when it is possible – needed to be maintained among students and between them and the teachers indoors. Although social distancing did not apply in outdoor spaces for students belonging to the same

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class or group, wearing a mask was mandatory, except for certain situations, such as eating or practicing sports (MNEY, 2020). However, in the protocol published in June 2021, the obligation for the latter groups of students to wear a mask in outdoor spaces was lifted due to "a significant improvement in the health situation and in accordance with the *recommendations of the health authorities* [emphasis added]." (MNEY, 2021, p. 2). Thus, as of June 17th 2021, French children from preschool to high school were not obliged to wear masks in outdoor places.

The effect of life experiences on individuals

The literature indicates that various life experiences, both in childhood and adulthood, can shape individuals' personalities, personal principles, and teaching careers, to name a few. For instance, several resources proposed that individuals' pro-environmental attitudes (e.g., strong bonds with nature, concern about nature, and taking care of nature) are mainly shaped by a direct contact with nature during childhood (e.g., Corcoran, 1999; D'Amore & Chawla, 2020; Palmer, 1993; Peterson & Hungerford, 1981; Sward, 1999; Wells & Lekies 2006). Chawla (1999) drew on the life experiences of 56 environmentalists from the United States (N= 30) and Norway (N=26) to determine the sources of their environmental commitment. Among these sources were experience of natural areas; influence of family members and/or friends; engaging in organizations' activities (e.g., scouts); negative experiences (e.g., the destruction of natural ecosystems); education (e.g., an inspiring teacher, a course); sense of social justice (e.g., belief in everyone's right to a healthy environment); principles or religion (e.g., sense of obligation to do what one understands to be right); and concern for one's own or one's city children and upcoming generations.

Comparable suggestions pertaining to the influence of childhood and adulthood experiences, including those spent in nature, on the individuals' teaching dispositions were showcased in the literature (e.g., Altan & Lane, 2018; Barrable & Lakin, 2020; Barrable et al., 2022; Blatt & Patrick, 2014; Chawla, 2007; Sjöblom et al., 2021; Strekalova-Hughes et al., 2015; Molin et al., 2015). Nixon (2015), for instance, drew upon the notion that "[m]emories influence personality, knowledge and identity" to examine how personal memories have shaped the way a group of individuals became supportive of Forest School in the Canadian context. The author examined his own memories and those of five participants to conclude "that [their] support for forest schools was largely influenced by formative and memorable experiences in nature [ranging from childhood to early adulthood]" (p. 4).

The research methodology

To address the main research aim of exploring FNS practices in French private programs, an online survey study design was adopted. Surveys are particularly effective for describing, comparing, classifying, and analyzing existing conditions based on data collected from a targeted population—in this case, educators working in private FNS programs in France (Cohen et al., 2000). The decision to administer the survey online was guided by the objective of reaching as many FNS educators across France as possible. The study's methodology was informed by similar research conducted in the Canadian context (Boileau & Dabaja, 2020; Harwood et al., 2020).

The survey comprised 47 questions and required approximately 20 to 30 minutes to complete. It included both closed-ended and open-ended items designed to capture the "authenticity, richness, depth of response, honesty and candour" of participants' experiences (Cohen et al., 2000, p. 255). The data were collected in French, and the survey remained accessible online from November 15, 2022, to January 31, 2023. Following data collection, responses were translated into English and analyzed using both quantitative (descriptive and inferential statistics) for closed-ended survey items and qualitative (inductive thematic analysis) methods.

The latter type of qualitative analyses consists "of coding the data without trying to fit it into a pre-existing coding frame, or the researcher's analytic preconceptions." (Braun & Clarke, 2006, p. 83). In this paper, I present outcomes from the larger study pertaining to the effect of weather conditions and COVID-19 on the operations of the programs, and the

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reasons that motivated the participants to become outdoor educators.

All ethical considerations were adhered to and respected during this research. The prospective participants were guaranteed the right to decline to answer any of the survey questions and withdraw from the study up to one week after data collection with no required clarification. The participants were also notified that the data will be stored on a password protected computer and will be exclusively accessed by the principal investigators. In addition, all participants had to provide an electronic consent so they could start to complete the survey and an alpha-numeric code was assigned for each one of them to ensure their anonymity.

The participants

An invitation to participate in the study was distributed via email to French FNS programs listed in two key directories (les Décliques, 2020; Réseau de pédagogie par la nature, n.d.), as well as to individuals involved in the field through professional networks. A total of 29 individuals provided informed consent and completed the survey. However, only 24 responses were included in the final analysis. The five excluded participants consisted of two in-service public-school teachers who conducted ONBE sessions within their schools, and three educators affiliated with FNS programs operating outside of France.

The 24 participating educators[3] came from 23 different programs (21 operating and two in-progress programs) across eight of the 13 Metropolitan French regions (please see table 1). The age of the attending children ranged from early years up to 18 years with a majority of them aged between 3 and 13 years. Further details on the participants' demographics and the research design are presented in another article: Dabaja & Nicolas (2024).

Outcomes

In this section, I examine: (1) the impact of weather conditions and (2) the COVID-19 pandemic on FNS session delivery, and (3) the participants' motivations for becoming outdoor educators.

The impact of weather conditions on the delivery of FNS sessions

Concerning the impact of weather conditions, the participants were invited to respond to five survey items. Four of these items consisted of closed-ended questions where educators had to choose the approximate number of hours the children would spend outdoors in a typical day during each of the four seasons. The given options went from less than one hour to six hours (i.e., less than one hour, 1 hour, 2 hours, and so forth).

Table 1. The dispersion of represented FNS private programs per French metropolitan region

The French region	The number of represented programs
Auvergne-Rhône-Alpes	6
Centre-Val de Loire	3
Normandie	3
Occitanie	3 (1 of which was still in development)
Provence-Alpes-Côte d'Azur	3
Hauts-de-France	2
Pays de La Loire	2 (1 of which was still in development)
Nouvelle-Aquitaine	1
	Total number = 23 (21 operating programs)

[3] The term *educator* in the study design referred to all individuals working in FNS, be they founders, administrators, practitioners, and/or volunteers.

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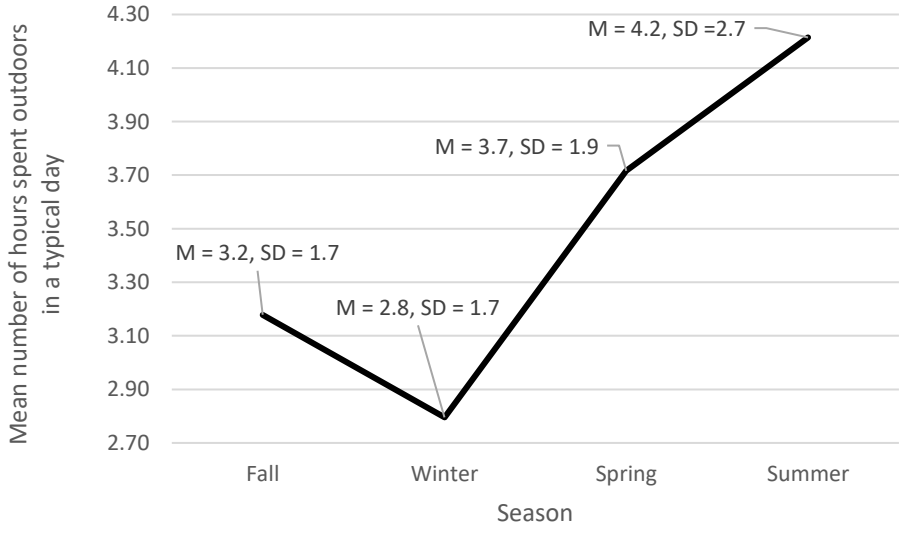
They also had the option to give an additional number of hours under the option "other." Several participants provided other number of hours, including time periods that contains half- an-hour and time ranges. When time intervals were proposed, I entered the average time for statistical calculation. For example, if the interval *1 to 2 hours* was provided, I would use 1.5 hours. For the answer *less than 1 hour*, I used 0.5 hour.

The fifth survey item was an open-ended question that asked the participants to describe the impact of weather conditions on the FNS programs' activities. The responses of 22 participants were considered for the analysis of these 5 items (i.e., the two participants representing the two under-construction programs were excluded).

In terms of the mean number of hours spent outside, the highest mean was 4.2 hours per day during summer and the lowest was 2.8 hours during winter. A total of 22 valid responses were offered for winter and spring and 21 valid numbers of hours were provided for fall and summer (please see figure 1). A further analysis was conducted to examine whether the difference in the mean number of hours spent outdoors was statistically significant. To this end, I performed a one-way ANOVA (Analysis of Variance) using SPSS® to compare the means of the four groups (i.e., fall, winter, spring, and summer). The independent categorical variable was the four seasons whereas the dependent variable was the number of hours spent outdoors. The analysis of variance showed that there is no statistically significant difference between the mean number of hours spent outdoors in a typical day between the four groups: $F(3, 82) = 1.963$, $p = 0.126$ (i.e., $p > 0.05$).

In terms of the open-ended question concerning the impact of weather conditions on the FNS programs' activities, the participants mentioned several weather elements that could hinder and/or alter the delivery of outdoor sessions. These elements included rain, snow, cold and high temperatures, strong wind, humidity, and thunderstorms. Some educators also underscored how parents' concerns caused by these weather conditions were negatively affecting the number of attending children. Still, the majority of the participants were adamant about the significance of engaging children in outdoor activities throughout the seasons by adapting to various weather elements. This adaptation could be attained through getting the children to wear appropriate clothing (e.g., "there is no bad weather, only bad

Figure 1. The mean number of hours spent outdoors in a typical day per season



clothing" (PR 2)) or through altering the type of these activities depending on the elements. It was noted that the adaptations to weather conditions were implemented by participants coming from different French regions, including the *Auvergne-Rhône-Alpes*; a south eastern region that is known for its mountains, cold winters, and hot summers (Regions of France, n.d.). A participant from the latter region reported,

> *We live in a region where winters are harsh and very snowy. This does not prevent [us from] going out, but nevertheless we are forced to adapt to the cold and shorter days. Summer, early autumn and spring are both rainy and very hot. Here too we adapt by offering outdoor activities in the forest but also with indoor activities around nature and with nature...* (PR 8).

A second educator from Occitanie (i.e., a southern French region with a warm climate; Visit Occitanie, n.d.) offered a comprehensive statement that reflected the narratives of many other participants:

> *The weather conditions of the 4 seasons have an impact on our activities. This impact is sometimes positive and sometimes negative. Concerning the children's equipment, for example, it can sometimes be negative. We can be confronted with children with unsuitable outfits and in discomfort. We offer parents a list of equipment according to the seasons and we adapt the activities according to the weather. Also, during periods of high winds we have to postpone or cancel meetings but this also allows us to explain the weather phenomena. Likewise in summer with the high temperatures […] of [southern] France, we have to adapt. Let's remember that we still go out in all weathers and that the impact is however much more positive than negative. Indeed, experiencing the seasons and changes in the environment allows for a wide range of activities linked to what is happening outside and puts the child at the heart of nature. Thus, he understands it better, experiences it more and all learning has more meaning. We [ourselves] adapt and adapt our activity according to the seasons* (PR 22).

The impact of COVID-19 on the operation of the FNS programs

The participants were invited to share the way COVID-19 pandemic had affected the implementation of their FNS programs. It is worth noting that beside the two programs that were still in the initiating phase, one of the FNS programs was not operating at the time of the pandemic. Thus, narratives from 21 respondents were analysed for this survey item. The qualitative analyses revealed that, outside periods of lockdown, COVID-19 differently impacted the operation of the represented programs. For instance, seven participants coming from six FNS programs clearly reported that the pandemic had no distinct impact on the delivery of the sessions. One of these participants stated, "not particularly [i.e., in terms of the COVID-19 effect]. We wore masks very little because we were outdoors. Also, with the big outdoors we weren't against each other [i.e., respecting physical distancing preventive measures]." (PR 5). A second educator specified, "we were open, as if nothing had happened. It was great!" (PR 3). Another participant perceived a rather positive impact of the pandemic "since parents had realized the importance for their children to spend time outside after the confinements prevented them from doing so." (PR 18).

The remaining educators communicated moderate impact of COVID-19 on their FNS programs. For one participant, the effect was "not too much because [they were gathering] outside [with] absentees due to illness" (PR 1). Another educator reported, "a little [impact] when several participants were absent because of covid[-19]. But it was not felt negatively" (PR 12). Finally, reflecting the messy situation at that period of time, one educator portrayed the operation of their FNS program during COVID-19 as "a trampoline :)" (PR 8).

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The educators' motives for choosing to become outdoor educators

Outdoor educators represent the key element that ensures the provision of outdoor nature-based learning, including FNS. That's why, I present in this article the motives that prompted all 24 participants to become outdoor educators. The data analysis of the participants' narratives revealed four main themes. The most recurrent motive was their personal lived experiences, be they childhood or professional. One educator justified her career choice by "an innate attraction to outdoor activities, coming from childhood memories when [she] was able to better understand and therefore learn by having sensory and multidimensional experiences" (PR 18). Another participant communicated, "I have a childhood memory of a day camp in a large wooded park that had a positive impact on me. As a child, I was already very attracted to contact with Nature. This connection is essential for me." (PR 13). A third educator associated her decision to "seeing the blossoming and smiles of the children during the 'outdoor learning' sessions experienced within [her] class." (PR 2). Comparably, one participant was inspired by a noticed increase in the wellbeing and enthusiasm of a group of children with learning difficulties when they were brought outside the traditional classroom that was "failing to meet their needs" (PR 8).

Another reported cause for practicing outdoor education was the contemporary child-nature disconnection and the necessity to re-create this bond. One educator clearly expressed her "feeling that it is urgent to get children outside and in contact with nature" (PR 23). A second participant linked her becoming outdoor educator to the "fact of becoming a mother and noting how few children were outside when [she used to go] out with [her] son" (PR 1) while a third wanted to "invite [the children] to know and love Nature, and thus give them the desire to protect it as they grow up." (PR 21).

Moreover, many participants communicated engaging in outdoor education because of the urgent need to capitalize on the benefits of the outdoor natural environment on the overall wellbeing of the involved individuals (i.e., children and adults) as well as on the children's learning. One educator was adamant about her pedagogical disposition by stating, "In my opinion, this is the most appropriate context [i.e., the outdoors] for learning." (PR 20). Another underscored a "need to get out of the 4 walls of [her] classroom […, a] need to diversify [her] teaching practice […, and a] need to offer new things to students" (PR 4). A third participant supported her choice of becoming outdoor educator by "the interest in helping children to better understand themselves (their limits, their fears, their pleasures, etc.)" (PR 21). Finally, an educator mentioned climate change and how investing in outdoor learning could "help[…] to make the community more resilient to prospective future changes." (PR 17).

Lastly, the participants' passion for being in nature and the desire to share this invigorating experience with others emerged as an additional reason for choosing this professional path. One of them eloquently supported her choice to become outdoor educator by communicating, "[it is] the pleasure [I sense] when being outdoors, the desire to share the well-being that I feel there, and […] the psychological necessity for me to leave National Education while keeping my enthusiasm to work with children" (PR 16).

Discussion

In this section, I discuss the outcomes from the French-based online survey study pertaining to the effect of weather conditions and COVID-19 pandemic on the provision of FNS, and the participants' motives to become outdoor educators.

The impact of weather conditions

The data showed that the mean time spent outdoors during a typical day at the represented FNS programs was the highest during summer (M = 4.2 hours) and the lowest during winter (M = 2.8 hours). The mean number of hours spent outdoors was 3.2 hours for fall and 3.7 hours for spring. The one-way ANOVA showed no statistically significant difference in the mean hours spent outside between seasons. Although the statistical results were not significant, the mean number of hours spent outdoors across the

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four seasons suggests that warmer temperatures in summer and spring led to increased outdoor time compared to the colder seasons of fall and winter. This suggestion is corroborated by the participants' narratives regarding the effect of weather elements on the provision of outdoor sessions, especially those that are usually associated with winter and fall time, including rain, snow, cold temperatures, strong wind, and thunderstorms.

It is noteworthy that, comparable to the study outcomes, weather conditions were presented in the literature as a prominent factor that could shape the operation of different forms of outdoor education (e.g., Dabaja, 2024; Edwards-Jones et al., 2016; Elliot, 2014; Harwood et al., 2020; Lysklett & Berger, 2017; Maynard & Waters, 2007). Still, the study participants emphasized the significance of engaging children in outdoor activities throughout the seasons so they could first-hand experience and learn about the changes in the environment all year around while creating a bond with nature. This year-long outdoor engagement could be attained through adapting the activities to various weather elements and/or wearing suitable outfits (i.e., *there is no bad weather, only unsuitable clothing;* a principle that represents a main pillar of the Forest School concept).

At this point, it is worth noting that the one-way ANOVA results presented in the present paper cannot be generalized as the number of represented active FNS programs in the study was relatively small (n = 21). However, the paper's outcomes could represent a stepping stone for conducting further research with larger sample size on the impact of weather conditions, regional climate, and/or other factors (e.g., programs' structures and children's age) on the time spent outdoors during FNS sessions.

The impact of the COVID-19 pandemic

The responses revealed that COVID-19's lockdowns which were implemented in France had halted the operation of private FNS programs. Beside these periods of confinement, the participants proposed that the delivery of FNS sessions were either not or moderately impacted by the pandemic. The minimal effect of COVID-19 on FNS sessions could be in part due to the open outdoor spaces that helped maintain social distancing among all involved individuals. In fact, as of June 17, 2021, French health authorities were showing less restrictive COVID-19-related measures when it comes to students in outdoor settings, including relieving them from wearing masks (MNEY, 2021). This official health recommendation might have played a key role in maintaining the operation of many of the FNS programs with little perturbation. One of the participants even perceived a rather positive impact of COVID-19 when parents started to realize the opportunity of spending time outdoors that FNS was offering to their children following indoor confinements. In fact, it appears that the practice of outdoor learning in France had intensified following the first confinement in spring 2020 (Besse-Patin et al., 2021; Vauconsant, 2025; Zwang et al., 2021). The surge in outdoor learning practice came hand-in-hand with an accentuated "media attention [… on the advantages of this educational approach], institutional support, training courses for teachers via the Magistère [platform], and a toolkit for teaching outdoors provided through the Canopé network[4]" (Clerquin & Sastourné-Arrey, 2022, p. 9).

In summary, the COVID-19 pandemic seems to have marked a turning point in the expansion of outdoor learning—including FNS—in France, with various stakeholders (such as the MNEY, educators, and parents) beginning to recognize the benefits of this alternative educational approach. A recent magazine article reported that around 4,000 schools in France are currently experimenting with outdoor learning (i.e., *classe dehors*) (Vauconsant, 2025).

Reflecting both the outcomes of this paper and the broader French literature, the COVID-19 pandemic brought renewed global attention to outdoor education. Across various contexts, outdoor learning enabled children to engage in active, hands-on

[4] Le kit « Les essentiels pour faire classe dehors »- Réseau Canopé - Mai 2021 https://www.reseau-canope.fr/dossiers-thematiques/les-essentiels-pour-faire-classe-dehors/presentation.html

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experiences while benefiting from fresh air and the ability to maintain safe physical distancing (Patel, 2022; University of Colorado, 2020; Xing, 2020). Marsh and Blackwell (2023) explored outdoor learning's potential as a "post-pandemic pedagogical tool" to support students in getting "back on track" by promoting physical and mental wellbeing, academic achievement, and social development (p. 1). In this light, I argue that now is an opportune moment to further explore the multifaceted benefits of ONBE, including FNS, as a proactive approach to addressing the challenges posed by future global health crises.

The motives for becoming outdoor educators

A number of participants reported that their childhood memories of playing and exploring in natural settings fostered a deep, enduring bond with the natural world. These formative experiences were not only emotionally meaningful but also seemed to lay the foundation for later pro-environmental values and career orientations. This finding aligns with the literature indicating that various life experiences, both during childhood and adulthood, can shape different aspects of the individuals, including their pro-environmental attitudes and teaching dispositions (e.g., Altan & Lane, 2018; Barrable & Lakin, 2020; Barrable et al., 2022; Blatt & Patrick, 2014; Chawla, 2007; Corcoran, 1999; D'Amore & Chawla, 2020; Molin et al., 2015; Nixon, 2015; Palmer, 1993; Peterson & Hungerford, 1981; Sjöblom et al., 2021; Strekalova-Hughes et al., 2015; Sward 1999; Wells & Lekies 2006).

In addition to personal memories, participants highlighted professional experiences—particularly witnessing the positive impact of nature-based activities on children's wellbeing—as a motivating factor in their decision to become outdoor educators. Many observed increased levels of engagement, emotional regulation, and enthusiasm for learning among children when learning occurred outdoors. This supports theories of experiential learning, such as those advanced by John Dewey (Pappas, 2023) and Kolb (1984), which posit that meaningful learning arises through direct experience, reflection, and interaction with the environment. In nature-based settings, children are provided with rich sensory experiences and real-world contexts that support deeper learning and personal development.

Some educators also expressed a desire to share their own invigorating experiences in nature with their students, indicating a relational and affective dimension to their motivation. This echoes David Sobel's (2004) advocacy for place-based education, which encourages educators to root learning in local, meaningful natural contexts, thereby fostering a love of place and care for the environment.

Another frequently cited motive was concern over the growing disconnection between children and nature—a phenomenon often referred to as "nature-deficit disorder" (Louv, 2008). Educators emphasized the need to reconnect children with the natural world, both to promote environmental stewardship and to capitalize on nature's developmental and educational benefits. This motivation is consistent with the key aims of environmental education (Working Group on Environmental Education, 2007) and developmental theories such as those of Jean Piaget and Lev Vygotsky (Alharbi, 2022), which underscore the importance of sensory-motor experiences and social interaction in learning. Nature-based education provides ample opportunities for exploratory play, problem-solving, and collaborative learning, all of which are essential for cognitive and socio-emotional development while fostering children's environmental awareness.

The alignment between participants' motivations and the sources of environmental commitment identified in Chawla's (1999) seminal work is particularly noteworthy. Chawla identified key influences on environmental concern, including childhood experiences in nature, role models, and education—all of which emerged in the narratives of this study's participants (see table 2). This overlap suggests a possible association between one's environmental commitment and the choice to pursue a career in outdoor education. It raises an important question for future research: To what extent is the decision to become an outdoor educator rooted in a

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Table 2. Juxtaposing Chawla's sources of commitment to environmental protection with comparable participants' motives to become outdoor educators

Some of Chawla's (1999) sources of commitment to environmental protection	Participants' motives to become outdoor educators in the French-based research
Experience of natural areas	Childhood memories in the outdoors
Vocation	professional experiences (e.g., witnessing the benefits of nature on students)
Concern for children, grandchildren	Concern about the child-nature disconnection
Principles or religion (e.g., sense of obligation to do what one understands to be right)	The urgent need to capitalize on the benefits of nature
Sense of social justice (e.g., belief in everyone's right to a healthy environment)	The passion for being in nature and the desire to share this invigorating experience with others
Negative experiences (e.g., pollution, radiation)	Climate change

personal ethic of care for the environment?

Taken together, these findings and theoretical linkages suggest that the motivations to become outdoor educators are deeply interwoven with experiential, environmental, and developmental frameworks. Understanding these motivations not only enriches our knowledge of educator identity but also reinforces the broader educational value of outdoor learning.

Conclusion

This paper, based on a study on French FNS private programs, identified three key factors shaping ONBE: The COVID-19 pandemic, weather conditions, and the educators' personal motivations. The findings highlight the potential of FNS as a resilient, flexible, and health-conscious model of education, particularly during health crises. Minimal disruption to FNS programs during COVID-19 suggests that outdoor learning should be strategically integrated into emergency education plans.

Furthermore, participants emphasized the feasibility and significance of year-round outdoor learning, despite weather-related challenges. With adequate investment in weather-appropriate clothing, infrastructure, and training, outdoor education can be sustained throughout the year. This calls for systemic support from different stakeholders to ensure equitable access and implementation in diverse contexts.

The outcomes also proposed that the COVID-19 pandemic has served as a catalyst, boosting public and institutional interest in outdoor learning and its numerous benefits in France. Thus, it proves timely to promote ONBE, including FNS, as a core and permanent component of education systems worldwide, rather than a temporary alternative. To do so, curriculum planners and policymakers need to embed nature-based learning from an early age, fostering the children's environmental awareness, emotional and physical wellbeing, as well as their academic, social, and communication skills (Author 2, 3).

Importantly, participants' pathways into outdoor education were often shaped by formative experiences in nature and strong environmental values, aligning with Chawla's (1999) framework on environmental commitment and career choice. These insights suggest that educator training and recruitment programs should be designed to harness such motivations, potentially enhancing the quality and sustainability of ONBE leaders.

Given current and potential future global challenges—from climate change (United Nations, 2021; European Environment Agency, 2024) to potential health crises (Heymann et al., 2024)—ONBE, particularly FNS, offers a rich and valuable pedagogical approach (Knight et al., 2024). It supports the development of healthy and environmentally literate citizens equipped to navigate and respond to the uncertainties of the 21st century. Future research should further investigate how ONBE, including FNS, can contribute to resilience, wellbeing, and

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sustainability across diverse populations and settings. In particular, conducting comparative studies across different cultural, geographical, and educational contexts within Europe and beyond could yield critical insights into the effectiveness, adaptability, and equity of outdoor learning practices worldwide.

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