

# **A study of the experiences of children aged 7-11 taking part in mindful approaches in local nature reserves**

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## **KEYWORDS**

Outdoor Learning; nature; mindfulness; contemplative pedagogy; plateau experience

## **ABSTRACT**

An increasing body of evidence highlights that the opportunities for children to play in green spaces have declined. This is despite the chorus of voices lauding the benefits that time spent in green spaces can have on children's health and wellbeing. This paper presents findings of research into the experiences of children when taking part in mindful approaches in nature reserves. The children, aged between 7 and 11 years old, were drawn from four classes in four different primary schools. After they returned to their schools a small group from each class undertook semi-structured interviews. Analysis of the data revealed a number of common themes in the children's experiences. The children reported feeling calm and relaxed, experiencing a different sense of time and feeling as though they had transcended their everyday reality. These results are analysed and related to optimal experience theories, contemplative pedagogy and indigenous approaches to education.

Evidence suggests that children are having fewer opportunities to visit 'green spaces' because of parental fears, restricted access to natural areas, and time spent on electronic devices (Bergen, 2017; Gleave & Cole-Hamilton, 2012; Hougie, 2010; Rivkin, 2015; Waller et al., 2017). Bergen (2017) emphasises how the natural world is being replaced by the virtual world for play purposes, describing the situation as 'technology-play-creep' (p.55). It is argued that play is increasingly tethered to digital spaces and therefore is becoming pervasively home-based and sedentary (Bergen, 2017). Louv (2011) describes this situation as 'protective house arrest' (Louv, 2011, p. 269). The educational landscape in the UK reflects these concerns and England, Northern Ireland, Scotland and Wales each have a statutory

requirement for children to learn outdoors (Adams and Beauchamp, 2018). In the proposed new (national) curriculum for Wales, where this research took place, Health and Wellbeing are recognised by being included as one of the six compulsory 'Areas of Learning and Experience' (Donaldson, 2015) which all children will experience.

This move is prompted by a recognition of the importance that nature can play in health and wellbeing. Waite (2011) calls on us to realise how important it is for pupils to gain *different* experiences outside of the classroom, from those in it. This reflects the view that 'our relationship with nature is literally part of our psyche, our soul, and our bones' (Mitten, 2017, p. 175). It also acknowledges that our sensory abilities mean we are 'tuned for otherness' and with this awareness 'we find ourselves in an expressive, gesturing landscape, in a world that speaks.' (Abram, 1996, p. 81). Blades (2015) suggests that we are more aware of the expressive capabilities of the more-than-human world when we are immersed in nature. He asks, 'Have you ever experienced walking through a pine forest and having that uncanny experience of being scrutinised amidst the whispering of pine needles?' (Blades, 2015, p. 17). Buber (1970a), in his philosophy of dialogue states that nature is one of the 'spheres' that can put us in tune with our true existential selves, allowing us to experience the world of relation, through an authentic 'I-Thou' dialogic encounter.

In addition, Schein positions moments of inner-time, or 'spiritual moments', when 'children can discover a kind of flow where the need to stay on schedule or accomplish certain tasks is suspended.' (Schein, 2018, p. 99). There is evidence of such benefits in specific subject areas, such as children's music making whilst being surrounded in nature, which can engender enhanced spiritual awareness through biophilic, transcendent experiences (Adams & Beauchamp, 2019). However, there is little evidence of research that has investigated children's responses to engaging in what might be described as slower, or less-active, 'mindful approaches' whilst being immersed in nature.

A move to children spending more time outdoors, however, is not without challenges. Higgins and Nicol (2002) remind us that outdoor learning is a cultural construct which is 'thought about and applied in different ways within and between countries.' (p.1). As such, views on the importance, or otherwise, of learning outdoors are often culturally specific and reflect differing narratives about humans and our interrelatedness with nature, especially in education. For instance, Waite (2010) argues that opportunities for outdoor play have declined in some countries because children are submerged in performativity (Ball, 2003), under pressure to perform and demonstrate achievement. The tight organisation of children's lives increasingly involves strict synchronicity with clock-time, controlled by adults, who assess the value of an activity against what measurable achievements can be produced by the child in a set amount of time (Waite, 2010; Waller et al., 2017; White, 2004; White & Stoecklin, 1998). As a result, it could be argued that mainstream outdoor education is deafened by performativity (Humberstone & Stan, 2012) and consequently the landscape remains muzzled (Abram, 2010). Nevertheless, Abram (2010) argues that shifting the pedagogical lens could potentially allow us to hear the calls from the natural world. This would entail a paradigm shift from anthropocentric perspectives, where humans are viewed as holding dominion over nature, to a view that acknowledges that we are part of nature and encourages mutually healthy relationships (Mitten, 2017).

Spending more time in nature may also mean fundamental changes in some teachers' pedagogic practice, but this also has benefits. In what perhaps can appear at first like an oxymoron to the fast-paced driven micro and macro-agenda of mainstream pedagogy, Payne

and Wattchow (2009) call for a 'slow-pedagogy'. They criticise the status-quo commitment to a fast pace in teaching and learning and argue for the need for slow pedagogy, in contrast to the 'take-away pedagogies proliferating in education' (p.15). Others use the umbrella heading of 'contemplative pedagogy' (Coburn et al., 2011; Ergas & Todd, 2016; O'Donnell, 2015; Roth, 2014) to signify educational activities that intend to 'concentrate, broaden and deepen conscious awareness' in order to cultivate 'more meaningful and fulfilling lives' (Roth, 2008, p. 1766). Similarly, Foran and Olson emphasise the existential and developmental value of 'dwelling pedagogically', describing this as 'being absorbed and being able to dwell authentically in a learning experience without interruption or distraction' (Foran & Olson, 2012, p. 198). This resonates with Abram's concept of 'patient receptivity' as he argues that if we deliberately dwell in moments of stillness out in the landscape then we can 'experience the enveloping earth as expressive and alive' (1997, p.30).

In this context, being outdoors provides many opportunities for mindful activities. Although mindfulness is a contested term (Gethin, 2011; Van Dam et al., 2018), in essence it refers to intentionally focusing one's attention on the experience occurring in the present moment in a nonjudgemental or accepting way. (Kabat-Zinn, 1990). It is argued that mindful activities allow for more body and sensual awareness (Ergas, 2015; Kabat-Zinn, 1994; O'Donnell, 2015). Shusterman (2008) calls this somaesthetic awareness, a body consciousness that nurtures a care of the self. In contrast he warns of western culture's sensual extremism that is driven by 'a deep somatic discontent' (2008, p.39) and leads to a lust for hyper-stimulation. Instead he endorses the 'more tranquil methods of somaesthetic reflection' (Shusterman, 2008, p. 40). Echoing others such as Dewey (1928) and Merleau-Ponty (2013) who called for greater mind-body unity, he claims somaesthetic awareness is a meliorative experience, that views 'one's body as a locus of sensory-aesthetic appreciation' (Shusterman, 2008, p. 19).

Because of its many potential benefits, mindfulness has been used with positive outcomes in many contexts, particularly medical and therapeutic, as well as, for example, youths with ASHD (Chimiklis et al., 2018) and teacher 'burnout' (Iancu, Rusu, Maroiu, Pacurar, & Maricu?Oiu, 2018)— although Klingbeil and Renshaw (2018) add a note of caution to the positive effects based on the wide use of self-report measures. There is, however, less empirical evidence of its efficacy with younger children, such as in this study. Those studies that do exist, focus on the therapeutic use of mindful activities—with, for example, children with autism and their caregivers (Hartley, Dorstyn, & Due, 2019) or children with special needs and their parents, (Benn, Akiva, Arel, & Roeser, 2012)— rather than mindfulness activities in nature as in this study.

### **Methods and sample**

The focus for this study was aiming to find out what children *felt* about their experiences of mindfulness activities at local nature reserves. With this aim in mind, the study adopted qualitative research methods, using a purposive convenience sample of local schools. The children were taken to two local nature reserves by their teachers and one of the research team. Both shared essential characteristics (e.g. remote, woodland, saltmarsh, grassland, home to rare birds and wildlife) meaning the experience was essentially common to all groups. In addition, analysis showed no differences in themes that emerged, so findings for both settings are reported together.

Once at these outdoor locations, the children undertook various mindful approaches to facilitate engagement with the natural world. These included sensory engagements with the environment, ranging from breathing meditations, listening exercises, looking at the landscape, watching birds in flight, feeling leaves, smelling moss, to playing 'hide and seek'. Some of these activities were planned, led by one of the research team. Others were spontaneous and led by ideas from the children. All of the activities allowed the children to be focused in a mindful way, something Bishop et al. (2004) describe as a 'present-centered awareness' (p. 232).

Four groups of Key Stage 2 (aged 7–11) children (n = 91) from four different primary schools in South Wales took part in the study as shown in Table 1.

	School A	School B	School C	School D
Sample Size	20	17	30	24
No. of Pupils Interviewed	5	5	6	6
Age	9-10 years old	7-10 years old	8-11 years old	9-10 years old
Number of practitioners interviewed	1	1	1	1
Location	Nature Reserve 1	Nature Reserve 2	Nature Reserve 1	Nature Reserve 2

**Table 1: Sample demographics**

Prior to all activities, informed ethical consent was gained from all pupils and parents under university protocols. As one of the research team had worked as a facilitator of the mindful activities, and had established a good working relationship, this person also interviewed the children and their teachers. The children were interviewed on the same day in semi-structured group interviews. Convenience sampling was used when selecting the children to interview as not all of the children were available to be interviewed on the day due to other school commitments. The teachers were also interviewed individually in semi-structured interviews. The interviews were recorded and later transcribed for analysis.

It is important to note that this study adopted an interpretivist paradigm, where reality was 'assumed to be multiple and constructed rather than singular and tangible' (Sandelowski, 1993, p.3). The data analysis therefore took a grounded approach, with no preconceived codes (Saldaña, 2015). The aim of the analysis was therefore 'the discovery of theory from data - systematically obtained and analysed' (Glaser & Strauss, 1967, p. 1), rather than to prove a hypothesis or an already held idea (Charmaz, 2017).

Therefore, the resulting theory was 'developed inductively from data rather than tested by data' (Bryant & Charmaz, 2007, p. 154). However, such an approach was not 'atheoretical' (Goulding, 1998), as underpinning theory and theory discovered during the research were integral to the conceptual analysis. An iterative process enabled the researchers to move back and forth between relevant literature and data in order to construct the analysis. As

Goulding (1998) explains, a grounded approach 'requires an understanding of related theory and empirical work in order to enhance theoretical sensitivity.' (p.52). Knowledge and theory were thus used to add to the data and give new perspectives on the data.

## **Results and discussion**

The data analysis revealed a number of common thematic responses from the children and teachers, which will be analysed in turn below.

### *Calm and relaxed*

All the children interviewed reported feeling a sense of calmness whilst engaging in the mindful activities in the nature reserves. They explained that the immersion in nature and being able to sensually experience this immersion, due to the geography of the location, seemed to be the cause of this calmness. For example, Pupil 4 from School B said,

I felt like, calm and relaxed. Because, something like X said, in school we never like really, like in the playground we never get to like, hear silence. Because, we do hear birds like sometimes, but like it was nicer to just like be in silence for like a couple of minutes and just hearing all the birds go by, and just hearing them tweet tweet.

Similarly, Pupil 5 from School D said:

Out there was like really calming because when we were by the sea. It was like we could see like the waves that were going in and out which is peaceful. And then when we were in the forest the trees were like swaying like that, like the rustling sound which was really like nice. And then like the others said, the birds, it was like really calming

The children explained that being able to have a multi-sensory experience of nature had a calming effect and that this had been a positive experience. For example, pupil 2 from School C said:

It was if I just lost myself. So it was like I'm free and it's just like more relaxing. Because I like music and things like that, when you asked us to close our eyes where the, we were following the deer prints, I was feeling as if there was music around me

This was supported by the teachers who all stated that the children were calmer than they usually were in school. For example, Teacher 1 from School B said 'Some of the children that were there are in my class and usually they can't keep still, and they were definitely more relaxed, and calm.' The teachers also reinforced the data from the children that suggested the children's experiences had been both peaceful and included an enjoyable sense of awe and wonder. For example, Teacher 1 from School C said,

Because normally they're not surrounded by nature . . . We were so lucky we had the sand dunes, we had trees, we could observe the animals, the nature around us, ..because it's just so calming and you get time to think, and I think that helps the children too. They were outdoors, they had space, they were surrounded by nature, and it's not four concrete walls is it? You don't feel suffocated; they feel, "Wow".

This feeling of calmness coupled with a joyful, cognitive appreciation of the moment

chimes with Maslow's (1964) concept of plateau experience. Maslow (1964) describes this as 'a witnessing, an appreciating, what one might call a serene, cognitive blissfulness' (p.336). As is highlighted above, the children similarly described their experiences during the mindful activities as engendering a highly enjoyable sense of awe and wonder.

### *Time*

The children also reported feeling a different sense of time whilst doing the mindful approaches at the nature reserves. For example, Pupil 1 from School B said

Time was very, very slow. But, like with concentration, time goes very, very slow. Because, when we were walking, it went very quick, it was like really fun to look around at everything, like all our surroundings. But, when we were listening to the birds, time went really slow.

Describing time as appearing to be slowed down whilst doing their mindful approaches was consistently expressed by both children and their teachers. For example, Teacher 1 from School C said: 'It's just a calming effect isn't it? And we don't take time to look at what's around us. We live on a treadmill; children do.' Similarly, Pupil 2 from School, D described time as feeling: 'Slower ... I think it does a bit to me because like it feels more different when you can hear all the nature around you.' This is echoed from Pupil 3 from School A who said: 'You have time to like actually realise what's around you'. However, some of the children stated that they thought time had sped up whilst they were at the nature reserve, because they were enjoying themselves. For example, Pupil 1 from School C said: 'Time went fast ... Because we was (sic) having fun.' Pupil 4 from School D agreed and said: 'I think it (time) was different because I was having lots of fun.'

The common feature of the children's and teachers' responses was that time had behaved differently, or had been experienced differently, and that the normal clock-time experience had been replaced. For example, Pupil 1 from School C said: 'To me it feels like everything was stopped so like you just, you'll live in that moment. It's like my mum's there as well, if you could bottle it a moment. Like that feels, and I just feel like that's what has happened.'

This perception of time behaving differently, or being different, was consistently expressed by the children. This resonates with the time distortion that occurs in the descriptions of the optimal experience theories of Csikzentmihayi (1990), Laski (1961), Maslow (1971) and Turner (1974). The idea of experiencing a different perception of time as being in the moment, transcending the linear clock-time construct and producing strong, affective reactions also relates to indigenous peoples' views of time as being inherently connected to place, nature, cyclical rhythms and spirituality (Cajete, 2015; Norton-Smith, 2010; Tedlock & Tedlock, 1992;; Whorf, 1950). Furthermore, it relates to existential perspectives from Eastern philosophies found in Taoism, Buddhism and Hinduism (Eckartsberg & Valle, 1981a).

### *Timetable—being away from clock-time*

The children's responses all agreed that being away from the school timetable and being able to dwell in nature was beneficial to their wellbeing. For example, Pupil 3 from School D said: 'Because like in school, you know, like when everything's going to happen, it's like ...

a buzzer goes for like lunch and certain lessons.’ Similarly, Pupil 1 from School B said: ‘It really felt different for me today, because when in school . . . like I said, normally it is very like, you know everything what is going to happen. But it was very different today because you never know what you are going to learn.’

There was also a consistent acknowledgement in the children’s responses that the normal school culture does not usually allow for such experiences. For example, this perspective is also illustrated in this exchange with Pupil 5 from School D:

Normally we just do the same every day, like maths, English and that, which is really nice and like, yeah, like people too said it is like it’s like out on the yard you can’t hear that stuff and there’s different stuff to learn about. (child)

Interviewer: “But you can hear and see nature out in the yard in school can’t you?” (interviewer) Pupil 5: “Well . . . yeah, I suppose so”

Interviewer: “So why don’t you?”

Pupil 5: “Because the school’s in the way . . . So you can’t see the trees. And it’s just normally really noisy out there and you can’t hear the trees and the birds.

The idea that normally the school is ‘in the way’, preventing opportunities to dwell in nature or freely daydream, was supported by all of the teachers, who stated that they thought being away from the usual school timetable had impacted positively on the children’s experiences. For example, Teacher 1 from School C said: ‘In school you’re constantly governed by that timetable . . . And I just think that going outdoors is much more effective because they get time to reflect . . . Time to be with nature, listening to sounds and just time to themselves’. Teacher 1 from School B agreed and summarised the situation in school by saying:

Because everything is on a strict timetable in school. So, even if they can’t see the time, they know how

their day is running. Whereas when they were outside, they didn’t have to watch it, they couldn’t see the time, they didn’t think about what time it was They didn’t think that they needed time to just go off and have

a break, they were quite happy to let their morning just run.

These responses clearly relate to Griffiths (2013) contention that children live at their happiest in the ‘wild time’ dimension of nature ‘when the mind can bask extravagantly in an open moment.’ (p.116). Moreover, the children’s responses suggest they are not ‘free to daydream’ as ‘the school’s in the way’, lends support to Griffiths’ provocative statement that ‘time-stressed children experience their daydreams surrounded by barbed wire.’ (Griffiths, 1999, p. 111).

All of the teachers reported that it was the combination of doing the mindful approaches whilst being immersed in nature that had allowed for these liberating experiences. When asked if the experiences could have been replicated by doing mindful approaches indoors, none of the teachers felt that the impact would have been the same. For example, Teacher 1 from School C said: ‘Time to be with nature, listening to sounds and just time to be themselves; I think there’s a big difference doing mindfulness in nature compared to being in here.’ Similarly, Teacher 1 from School B said:

It's just being outdoors in the fresh air and listening to ourselves, whereas if it was in the school hall you're not gonna have the same feeling or sound around you. You're gonna get people closing doors, somebody might walk into the room, whereas when we're up in nature, in the fields, it is just you.

### *Different world—improved reality*

The idea that the children had experienced a sense of being in a different world and that this had led to a different sense of reality, was repeatedly found in the data. For example, Pupil 3 from School B said:

I kind of felt in a different world, because usually you wouldn't have time to like think about good thoughts in school, like you would just have to think about like a question, but when you are like free, like on the trip, you don't really have to worry about anything, so you just like just think about all your dreams and hopes, as if you were in another world.

Similarly, Pupil 2 from School B said:

I really enjoyed today, because I have never been to somewhere so big and like, that quiet. And, it was a bit different because like, it was like paths and all these different things. And, it just felt like I was in a different world, because it just didn't look like where we are now, like around this place.

Similarly, Pupil 5 from School A reported: 'It made you feel like you were one with it (nature), so because you were really relaxed and Because, you were staying so still, it felt like you were part of the background of it.' This idea of feeling at one with nature resonates with Abram's (2010) claim that there is a need for us to 'suspend our already-settled certainties' (p.299) and encounter nature with an open-awareness that allows for 'an empathic attunement to our surroundings' (Abram, 2010, p.2). The children consistently reported feeling a connection with nature and that the enhanced connection with nature had involved a positive, affective response. For example, Pupil 2 from School D said 'Because like when we listened to birds and things you get feelings come to your heart and all that ... it makes you kind of feel different.' Similarly, Pupil 2 from school B said: 'Well, I felt as though, when I closed my eyes, I felt like I was in a different world ... it is like all the birds just, they are singing, and they are making different tunes, and it is like they are making a song all together.'

Perceiving a sense of entering a different world due to immersive communion with nature is in keeping with optimal experience theories whereby it is suggested that an augmented or authentic reality is revealed. Csikszentmihalyi (1990), Laski (1961), Maslow (1971) and Turner (1974) all describe mind states that result in a sense of connectedness or interrelatedness with life, the universe, causing joy and existential or spiritual wellbeing (Adams & Beauchamp, 2019). These transcendent and holistic understandings resonate with indigenous cultures' beliefs as wellbeing and spirituality are inextricably linked to each other and revolve around a feeling of community with the land and the natural world. Grieves, 2006a, p. 52) states that spirituality for indigenous peoples involve feeling good about one's self, a calmness, 'inner peace, feeling whole' and an 'interconnectedness of the elements of the earth and the universe' (Grieves, 2009, p. 7). This biophilic understanding was seemingly experienced by the children when undertaking the mindful approaches at the nature reserves. Biophilia is defined as 'the innate tendency to

focus on life and lifelike processes.’ (Wilson, 1984, p. 1). Cajete claims that biophilia is ‘a primal and innate dimension of our humanity’ (Cajete, 1999, p. 190) and that biophilia is at the heart of indigenous approaches to education. It is argued that humans ‘derive their meaning from interaction with other forms of life’ (Cajete, 1999, p. 191). This seems to be echoed in the data as the children’s biophilic experiences had resulted in an enhanced perspective of nature and an augmented sense of self. This is highlighted in the following interview responses from Pupil 1 and Pupil 4 from School C:

Pupil 1: “When we were doing the stuff with nature, it felt like you were drifting away like somewhere else. And you were, you was just watching your body doing something and you’re the one doing it.”

Pupil 4: “Yeah, it felt like it had a different meaning to it.” Interviewer: “Okay. Yeah, go on.”

Pupil 4: “Like . . . because I knew . . . thinking like . . . places you think are like . . . it felt like the Earth was different . . . you don’t normally think of places which are like that . . . calm.”

Similarly, Pupil 3 from School A said:

“You feel small but also not small”

Interviewer: “Small, but not small. OK. How else would you describe it?”

Pupil 3: “I think describing it is that it’s a big world and then you realise that you’re just a person, but you do mean a lot and sometimes you can have . . . You can be scared to explore the world, but sometimes you just need to go do it . . . so, everyone has a purpose.”

The children’s biophilic responses chime with Carson’s theory that children have an ‘in-born sense of wonder’ (2017, p. 44) that can be nurtured through deep, meaningful connections with nature. They also relate to Cobb’s (1959) research into the autobiographies of over three hundred ‘adult geniuses’ from a range of cultures and eras. Cobb found that the autobiographies consistently reported childhood memories of significant experiences of wonder and ‘passionate enjoyment’ with ‘the forces of nature’ (p. 544). Cobb (1959) felt that this evidence called for a redefinition of human relations with nature as he felt these childhood experiences remained in memory as ‘a psychophysical force, an elan, which produces the pressure to perceive creatively and inventively.’ (Cobb, 1959, p. 538). Sobel (2008) also emphasises the importance of what he calls ‘transcendent nature experiences’ (p. 18). Citing Cobb (1959) and research by Robinson (1977) and Hoffman (1992), Sobel (2008) highlights how in all these research studies, children between 6 and 12 years old described having profound, transcendent experiences, involving a significant connection to nature. He claims that these experiences are valuable because ‘once you’ve felt at one with the natural world it will powerfully compel you to environmental ethics and behaviour’ (Sobel, 2008, p. 18).

## **Conclusions**

In this study there appears to be a clear pattern in the children’s responses that showed that they had experienced peaceful, transcendent feelings and that these experiences had a positive affective quality. These experiences echo Maslow’s (1971) concept of plateau

experience and so it seems that mindful approaches in nature may help to engender this optimal mind state. They also provide evidence in support of Schein's (2018) claim that nature can provide 'feelings of wonder, wonderment, awe, joy and inner peace' (p. 86) in children. Furthermore, these experiences have the potential to be 'spiritual moments' (Schein, 2018), as they touch a child's 'basic disposition' or inner-self. Schein argues that 'the relationship between nature and spiritual development runs deep' (2018, p. 82). In addition, the children's experiences appear to have involved a different perspective of time, made accessible due to undertaking the mindful approaches at the nature reserves, and something that teachers reported could not happen in school. Moreover, being away from the school is reported by teachers as having a significant impact on the children's experience and facilitated these perspectives. It is suggested that transcendent experiences of nature connectivity and immersion in the present moment are significant for spiritual development (Cajete, 1999; Griffiths, 1999; Schein, 2018; Sobel, 2008). The enhanced wellbeing that accompanies these experiences may have added value, as this could help to nurture an 'empathic attunement' (Abram, 2010, p. 299), with the more-than-human world and cultivate less anthropocentric perspectives. In turn, these augmented viewpoints could help individuals and communities to cultivate a feeling of interrelatedness with nature.

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