

Spiritual moments making music in nature. A study exploring the experiences of children making music outdoors, surrounded by nature

Dylan Adams and Gary Beauchamp

Cardiff Metropolitan University

Abstract

Outdoor learning is recognised internationally as an essential part of a child's holistic education and children's wellbeing can be improved when being outdoors surrounded by nature. However, there is a growing body of evidence that suggests children are becoming disconnected from nature. This study investigated the experiences of six classes of children aged 7–11 years from six primary schools making music outdoors in rural locations in Wales over a two-year period. Groups of children from each school undertook semi-structured interviews using video-stimulated reflective dialogue (VSRD). Their teachers also took part in semi-structured interviews, without VSRD. The data suggest children's music making involved interactivity with nature provoking biophilic responses. The analysis revealed they experienced extraordinary, transcendent or what might be called spiritual moments. Evidence is analysed with conceptions of spirituality, *communitas* and philosophy of dialogue.

Outdoor learning is recognised around the world as an essential part of a child's holistic education. Research shows that children's wellbeing can be improved when being outdoors surrounded by nature (Chawla et al., 2014; Gill 2014; Swank et al. 2017). Despite this, there is a growing body of evidence that suggests children are increasingly becoming disconnected from nature (for example, Bragg et al. 2013; Charles 2018; Moss 2012). Indeed, Louv (2008) has warned that children are suffering from 'nature deficit disorder' and argues that 'As a society, we need to give nature back to our children and ourselves. To not do so is immoral. It is unethical' (Louv 2011, 268) Besides a moral dimension, Doddington (2014) claims there is also somaesthetic value in taking learning outside, arguing that the physical characteristics of, and engagement with, the outdoor environment allow for an 'embodied aesthetic experience', which attend to the 'mindful body consciousness and the pragmatic aesthetic nature of being' (Doddington, 2014, p.55).

A gradual realisation of the benefits of outdoor learning has led to an increase in its inclusion in school curricula, particularly in the United Kingdom (UK), especially within the primary school (ages 4–11 years).

However, Bonnett (2009) argues that traditionally in the West, education has 'prioritised the abstract over the particular and the cerebral over the tactile, and, for example, third person over first person understandings of the body and of bodily experience' (Bonnett 2009, 7).

This can mean that the value of outdoor learning is not always realised, because learners are not encouraged to dwell in nature and experience a sense of place and a bodily connection with the outdoors. (Payne and Wattchow 2008) As a result, the outdoors becomes merely an extension of the classroom (Rea 2008), and is used as an additional space for normal classroom activities to take place. Instead, Sefton-Green (2006), Waite (2011) and Warden (2015) call for outdoor learning to deliberately disrupt the pedagogies of the classroom and ensure that it is not simply moving the existing classroom to the outside. Additionally, it should not be viewed as 'opportunity to release energy', but 'a means to support creativity' (Waite 2011, 73). allowing for alternative pedagogies. Warden (2015, 4) asserts that 'there is a pedagogical shift when you move outside, it is learning with nature not just teaching about it.' To aid in this process, Bonnet (2009) argues for a phenomenological approach to learning where children's *felt* experiences are seen to hold educational value, where 'The body knows the situation directly . . . A living body know its environment by being in it' (Gendlin 1997, 27). A phenomenological perspective therefore acknowledges that 'environmental experience is considered to be not of the surrounding environment, but to emanate from within the surrounding environment' (Morse 2015, 114). As Van Manen (2016) explains, we know the world pre-verbally and pre-reflectively as it is 'corporeal, rather than intellectual. We know the world bodily and through our embodied actions' (p.128). Therefore Merleau-Ponty (1962) argues a phenomenological viewpoint allows us to 'return to the world of actual experience . . . the layer of experience through which people and things are first given to us.' (p.57).

An additional consideration is that physical and sensual experience of the outdoor environment can lead to extraordinary experiences, which can be called spiritual moments (de Souza and Watson 2016; Hay and Nye 2006; Schein 2018). This is potentially especially true of music making in the outdoor environment, which can open doors to new ways for children to experience the world and themselves (Adams and Beauchamp 2018), which is the focus of this study.

The question of spirituality in primary education is complex and has often been viewed as a controversial area (White 1996; Hay and Nye 2006). De Souza and Halafoff (2017, 2) suggest that 'The real problem with speaking of spirituality in education lies in the fact that for centuries, it has been closely associated with organised religion.' In addition, Nye (2009) claims spirituality is difficult to put into words because it is something that is experienced and

felt. Therefore, attempting to describe spirituality 'can lead to further obscurity rather than transparency' (De Souza and Halafoff 2017, 8).

Nevertheless, spirituality is widely viewed as a powerful way of knowing, an innate understanding and an essential part of human fulfilment (Clarke 2013; Ferrer 2005; Hay and Nye 2006; McLaughlin 1996). However, Nelson and Hart (2006) state that children are often thought of as incapable of having spiritual experiences, due to 'a prevalent presupposition that genuine spirituality requires adult abstract thinking and language ability as exhibited in the higher stages of adolescence and adulthood' (p.1). In the West, this may, in part, be due to children's development theory placing too much emphasis on the 'intellectual and moral reasoning' of children, which has 'downplayed the spiritual dimension' (Hay and Nye 2006, 50). This is important if we accept that spiritual experiences in children do not require cognitive standards or sophisticated language capacity, but instead 'children's spirituality is rooted in a universal human awareness' (Hay and Nye 2006, 4). In this context, De Souza and Watson (2018) call for children's spiritual capacities to be recognised and define spirituality as 'an awareness that one is connected to something more, beyond the individual self, but which can be grounded in an existential reality' (p.345).

Such ideas are situated in Maslow's (1971, 349) view that 'Man has a higher and transcendent nature, and this is part of his essence, i.e., his biological nature as a member of a species which has evolved.' He argued that human beings are capable of having peak experiences that are transcendental in nature. During these transcendent experiences we have an existential awareness and understanding that he labelled as 'Being cognition' or 'B-values'. Maslow asserts that during states of 'Being cognition' our perception of the world is 'the same as what people through the ages have called eternal verities, or the spiritual values, or the highest values, or the religious values.' (Maslow 1964, 64), which are accessible to all human beings.

A related concept, which situates spirituality, is Csikszentmihalyi's (1990) theory of 'flow'. which provides 'a sense of discovery, a creative feeling of transporting the person into a new reality.' (p. 74) Maslow suggests that during peak experiences 'several kinds of attention-change can lead to new knowledge' (1964, 77). In both concepts there is a feeling of immersion and the activity being undertaken is viewed as being autotelic, an end in itself rather than being goal oriented and "It is the pursuit that counts not the attainment." (Csikszentmihalyi 1997, 122). Similarly, Maslow's suggest that 'The peak experience is felt as a self-validating, self-justifying moment which carries its own intrinsic value with it.' (Maslow 1968, 90).

Furthermore, Csikszentmihalyi (2002) contends that 'flow' provides integration of the self and experience in perfect harmony, and 'when the flow episode is over one feels more together than before, not only internally but also with respect to other people and to the world in general.' (p.41) As music making involves working with other people, it seems possible that both Flow and Peak

experiences can be present, even with young children (Adams and Beauchamp 2018), especially as both are also both associated with feelings of happiness and joy. In music making, particularly with others, we should also consider Turner's (1969) theories of liminality and *communitas*. Turner (1967) claimed that liminality is a state of being that is betwixt and between worlds. It is a time when the constructions of society are suspended, time is distorted, hierarchies are dissolved, and identities removed. These liminal states allow for a transition into states of *communitas* which, like flow and peak experience, involves 'a merging of action and awareness, an ego-less state that is its own reward.' (Turner 1977, 50). Of particular relevance to group music making is Turner's suggestion that during *communitas*, the group activity is the be all and end all, egos and individual identities dissolve and participants 'become totally absorbed into a single, synchronized, fluid event.' (Turner 1974, 79). This can result in a 'peak effect when music opens into the "*unio mystica*", a experience of revelation. . . . Through this experience at its height, the musicians' eyes may be open but are unseeing because they have become the music.' (Turner 2012, 45).

When this music making takes place outdoors, we can draw parallels with indigenous people's understandings of human being's interrelatedness and interdependence with nature as 'according to indigenous cultures globally there is no division between human life and other forms of life in the natural world; there has always been and will always continue to be a deep and mutual connection.' (Lee-Hammond 2017, 319). Cajete (1999) describes indigenous people's approach to education as focusing on the core aspects of biophilia, originated from Fromm (1973) and later developed by Wilson (1984), and described as 'the innate tendency to focus on life and lifelike processes.' (Wilson 1984, 1) Cajete emphasises that at the core of indigenous people's philosophy of education is the belief that 'all people originate from a place that is natural and soulful' (Cajete, 1999, p.189). Further links can also be made with the Norwegian philosophy of *friluftsliv*, which is 'a way of interconnecting with nature where strong emotional and spiritual experiences from the immersion in natural settings result in a personal connectedness to the more-than-human world' (Gelter 2010, 3).

In the context of all these ideas, this study explores the potential of making music in nature, and its ability to enable them to transcend everyday consciousness in tune with their authentic spiritual selves.

Sample

This study investigated the experiences of children aged 7–11 years when making music (composing) outdoors in rural locations over a two-year period. It was motivated by the doctoral research of one of the authors, as well as a desire to extend understanding of primary music education beyond the current constraints of existing work in classroom or schools. Six classes of children (n = 187) and their

teachers, from six different primary schools, made music in various outdoor rural locations in Wales. These activities were video-recorded and after their musical performances, one group of children from each school was interviewed (n = 34) using video-stimulated reflective dialogue (VSRD is discussed in more detail below) in semi-structured interviews. The groups of children interviewed were always in the same class, but had not necessarily created music as part of the same group and were chosen due to availability. This convenience sampling was used because not all of the participants were available to interview due to lessons they needed to attend. However, there was also an element of quota sampling (Newby 2014) as at least two of each gender were always represented to gain responses from both boys and girls. No significant gender differences emerged so this is not reported as a theme below. All of the children's class teachers also took part in semi-structured interviews, but without the use of VSRD. Table 1 below shows the sample size and location of the musical activities.

The aim of the research was to explore children's experiences whilst making musical ceremonies in outdoor locations. The majority of the data came from the children's views, but these were also triangulated with views from the teachers. Giving children a voice regarding their learning experiences accords with article 12 of the United Nations Convention on the Rights of the Child and is especially relevant in Wales, where the research took place, as it was the first country in the UK to establish a Children's Commissioner and to legally enshrine the rights of the child into domestic law (Tyrie and Beauchamp 2018).

This study positioned the pupils as in control of their own musical compositions as they were free to design their musical ceremonies in any way or for any purpose that they wanted. Once at the outdoor rural site the children put themselves into groups and were given a choice of instruments to work with and were challenged to design a musical ceremony of their choice. The children had complete autonomy over the nature of their musical ceremony, giving agency over their music-making (Laurence 2010) and thus avoiding a particular (e.g. spiritual) context. This could be related to the pedagogical approach sometimes referred to as 'expert framing' (Whyte, Fraser, and Aitken 2013) where there is a 'conscious repositioning of power within the teacher-student relationship' (Whyte, Fraser, and Aitken 2013, 36). This also enabled the teachers to gain new perspectives about their pupils and their learning. (Flutter 2007) A member of the research team (an experienced primary teacher and facilitator of outdoor learning) led each class of children. This could arguably have led to researcher bias, as the researcher could be seen to have a vested interest in the activities having a positive effect on the children. Therefore this researcher minimised interactions with the children in the activities to avoid influencing the data and to limit bias through self-awareness (Drisko 1997). In addition, an additional researcher, who did not take part in the musical activities, provided an alternative perspective during the data analysis. This approach also acknowledged that multiple viewpoints allow a more critical and richer interpretation. (Nolan, Paatsch, and Scull 2018).

Table 1. sample size and location of the musical activities.

	School 1	School 2	School 3	School 4	School 5	School 6
Sample size	30	25	48	28	28	28
Number of pupils interviewed	5	5	6	6	6	6
Age	9–10 years old	9–10 years old	7–9 years old	7–8 years old	8–9 years old	9–10 years old
Number of teachers/practitioners interviewed	1 teacher	1 teacher	2 teachers	1 teacher	1 teacher	1 teacher
Location	Field containing Neolithic chamber	Beach	Beach	Woodland	Woodland	Field containing Neolithic chamber

Methods

All the musical activities were filmed and used later to provide the stimulus for semi-structured group interviews with pupils. These took place in groups of 5/6 children using the video as the basis for a Video Stimulated Reflective Dialogue (VSRD). This method has been widely used in educational research with both teachers (for example Powell 2005; Hargreaves et al. 2003; Pratt 2006; Merry 2004; Tanner, Jones, and Lewis 2010) and pupils (Tanner and Jones 2007; Salisbury et al. 2011), where it proved effective in initiating discussion. Such discussion results in a 'collective exchange . . . intended to result in a synergetic pooling of information which extends the concepts involved' (Moyles, Adams, and Musgrove 2002, 465). As the teachers had been non-participant observers at the performances, and the interviews took place soon after the event, it was felt that their professional skills of classroom observation were sufficient without the video, which proved to be the case as they were able to clearly articulate the reactions of individual pupils.

All interviews were recorded and transcribed. They were then subject to an iterative process of open thematic coding using a grounded approach, with no preconceived codes (Morse et al. 2009), moving from broad initial to focused final codes.

Results and analysis

Pupil and teacher responses will now be examined in more detail in order to demonstrate how the evidence indicates that making music out of school and outdoors, whilst being immersed in nature, may cause changes in consciousness. We shall also explore how these changes in consciousness can be related to what Schein (2017) describes as 'spiritual moments'. In these spiritual moments the children appeared to experience a sense of interaction and harmony with their surroundings and each other. This sense of interaction and harmony will be related to theories of optimal experience, Buber's philosophy of dialogue, concepts of biophilia, *friluftsliv* and indigenous peoples' beliefs and approaches to education.

Immersion in and with nature

The children's responses consistently suggested that the experience of being in a rural environment had allowed them to feel a sense of immersion in nature. This immersion was felt as a sensual, embodied experience. All of the children interviewed highlighted that one of the first noticeable differences they experienced was a sensual experience of nature. For example, Pupil 2 (P2) from School 5 (S5) stated:

"I think that it started with us listening to the nature, the trees were swaying and there were birds chirping, then it kind of makes you relax because you know there are no people shouting . . . it depends on the surroundings and nature. If you're in a house, you don't feel the magic."

Similarly, P4S4 said:

"It felt different just because we were outside, and we could use all the space. Listening to the trees and the leaves first of all. Then seeing the sunlight and hearing the birds."

These responses resonate with Doddington's (2014) claim that being outdoors in nature can allow for an embodied aesthetic experience where 'The body's corporeal, emotional, kinaesthetic and sensual characteristics may have increased significance and feature as more integrated' (p.42) These responses suggest that the children experienced an optimal experience (Csikszentmihalyi 2002; Laski 1961; Maslow 1968), which resonates with Turner's (1969) analogy of *communitas* as calm, like the centre of a wheel. This was supported in the teacher interviews, with one stating that:

"There's a depth to it, it is more tranquil. There is no doubt they can't focus on all their senses as much in the classroom. It's not just about the sounds; it's about feeling the air around you, the space that's around you. It's hard to put into words because your whole body is engulfed in it."

The responses from most of the children showed that this immersion *in* nature also caused a sense of interconnectivity or harmony *with* nature. For example:

"It was important hearing. Hearing, just close your eyes and listen to the trees rustling, the birds tweeting, and the river rushing. It just brings peace. It's as if you're one with nature." (P3S5)

"I liked playing the music because of the waves and the birds and the echoes helped the music to flow, so it's like part of all around us." (P2S3)

The children's responses suggest their sense of interconnectivity with nature appears to have been increased when they began making music. Consistently, throughout the responses, the children spoke about feeling that nature was part of their music making. For example, P4S6 said:

"When I was playing everything went together. . . . It's like a jigsaw when they all come together and they all fit in and they make this lovely harmony. And the vibrations of all the rocks outdoors, it makes even louder sounds and with all the wildlife; with the trees; and the wind; and the nature."

This was supported by the responses from the teachers. For example, the teacher (T) from School 1 (S1) said 'When you're outdoors, you've got nature around you, whether it's the wind or the birds or the sounds they're making,

and you can almost incorporate that into your music routines and get one with nature.’ Similarly, TS3 asserted that ‘The children not only used the sounds from nature, they talked or responded to the sounds from nature with their music making. They became integral to their music, to their ceremonies.’

The children felt that the experience of nature, coupled with their music making, caused them to experience altered states of mind or spiritual responses. These involve a ‘liminal musical experience which include a unitive element . . . [that] . . . takes the form of a feeling of being united with the universe, other beings, and the natural world.’ (Boyce-Tillman 2009, 192) For example, P2S6 stated ‘There’s a nature sound and there’s a proper sound and they’re together . . . It all combines and blurs.’ Such responses can also be linked to Buber’s (2013) description of the augmented awareness that is realised in his dialogic I-Thou philosophy, whereby ‘we are granted a kind of mutuality by beings and things in nature’ (p.94).

The children also consistently expressed the idea that their perception of reality had been altered, as if they had entered a ‘new world’, such as:

“It feels really good when you like play together. It takes you to another land because like nature and the people like help you like teleport to a place where nothing goes wrong and it like feels really, really nice.” (P5S4)

“it’s like, this is a new world for me. This is where I’m going to a new door. . . . Then when we went through it . . . It’s like a door into just birds and all creatures and the wind and all the outside.” (P4S6)

Allied to these new worlds was a common idea of a loss or change of identity, such as ‘Yeah, almost like you’re a different person when you hear all these sounds and see all these different moves, and you just go into a different world’ (P4S6) and ‘. . . when you’re playing the music, you can get into a different character; it’s just so good.’ (P3S5)

The children also consistently felt that time had behaved differently, such as ‘For some reason I thought – playing music in the woods, it’s weird because you feel like you have unlimited time and it’s never going to be night and nobody’s around you. . . . like time stops and you can just do whatever you want.’ (P1S5) This distortion of time matches Turner’s description of liminality as being ‘in and out of time’ (1969, 96) and is further illustrated in this interview exchange with P2S4:

P2: Time feels different each time.

Interviewer: Time feels different? P2:

Yes.

Interviewer: Quicker or slower?

P2: It feels quicker and slower at the same time.

Towards spiritual moments

The children's responses also included a recurring theme that their music making had caused an augmented experience. For example, P5S5 stated 'I felt like the music blended in with the forest and like I was in the Amazon rainforest. It felt different . . . Like I was away from all the talk about school and tests and things; it felt relaxing and I could just focus on playing our music.' The release felt by the children when just focusing on their music making in nature accords with Schein's (2017) description of spiritual moments as being 'when something external touches the child internally in such a way that connects with her disposition, providing her with feelings of wonderment, awe, joy or inner peace.' (2017, 91–92). These spiritual moments, or a heightened state of being, also resonate with theories of optimal experience. For example, Csikszentmihalyi (2002) claims that flow 'lifts the course of life to a different level' (p.69). This is exemplified in this interview exchange:

S1P2: It feels really special because you're moved by the things you hear and you get to interact with other things outside and you feel kind of special to be in that position.

Interviewer: You're moved by other things that you hear. What do you mean by that?

S1P2: Like the birds singing and all the animals and the different sounds from 🌳

Interviewer: Why is that?

S1P2: It touches you because it feels like you're interacting with them with those noises. It feels like you're having a conversation with them, like they're talking back to you and they're listening.

Similarly, P3S6 reported 'I felt like I was in a fairy tale like land because you could like hear like everything coming in to each other and it felt all together as one. It was just really magical'.

This sense of communal immersion reflects the notion that 'Individuals who interact with one another in the mode of spontaneous *communitas* become totally absorbed into a single, synchronized, fluid event.' (Turner 1974, 790) This feeling of being one with the music, each other and their surroundings was expressed by many of the children during the interviews. For example, 'When I was doing the music . . . It made me feel everybody was a part of somebody.' (P3S3) and 'When you . . . play music together as team at the beach, everything bonds with you. Nature, the sea, the sky, it's all part of the music.' (P2S3)

There was also a consistent theme of feeling that this heightened experience was somehow a part of the children's nature that was not ordinarily accessed, but that was nevertheless part of their true selves. For example, P2S5 said 'The place that you go to when you play music, that's different 🌳 normal place. it . . . it feels like coming home. . . . you can be who you really are inside.' Or, in this interview extract:

P4S3: It's something that you're getting into and you really really like. It kind of takes control of you and then you kind of go . . . feel you just want to let it out . . . It makes you more you.

Interviewer: What do you mean by that?

P4S3: Music makes me. Is what makes me, me. My dream fits in with it.

These ideas resonate with Turner's (2012) concept of *unio mystica*, where musicians become the music, as exemplified by P2S4:

'I felt I was in a place where there was nothing in there except for wind and our music. I felt the wind blowing on my face and the vibration of the sound blowing on my face in the wind. I could feel that and our music only. Nothing else. Nothing else mattered.'

Communitas

There was also a common sense that the children had experienced a bond with each other and their surroundings in keeping with the theories of optimal experiences. For example, P1S6 said 'I felt, when we were on the field, there was all the nature also making music, . . . And then everything is the music and you feel so happy, like nothing else matters, everything has stopped.' (P1S6) This resonates with Turner's (1974) concept of *communitas* and Buber's (2013) philosophy of dialogue, when events 'open into a genuine change from communication to communion . . . the embodiment of the word dialogue.' (p.21) This feeling of communion was consistently reported in the children's responses. For example:

"We were making all that sound together. . . . When you're part of a group, you feel like you're family. You all go in that magical world together and you do it together, and then when the music stops, you come back to this world and you're like, "Let's go back into the world! Let's go back into the world!" (P4S6)

These responses also chime with Cajete's (1999) and Lee Hammond's (2017) description of indigenous people's biophilic philosophy of education. Wilson (2018) highlights that the traditional western view sees 'humans as being separate from and dominant over nature.' (Wilson, 2018,p.66). In contrast many indigenous cultures emphasise that humans are part of nature just like any other forms of life (Cajete, 1999). This biophilic view believes that 'the same life force in us also operates in animals and plants.' (Arvay 2018, p.3).The children's music making appears to have caused them to experience a biophilic response as they experienced a 'deep and mutual connection' with each other and the natural world (Lee-Hammond 2017, 319).

Conclusion

The responses from the children and the teachers demonstrate that the children appeared to have experienced various benefits from their experiences

of making music outdoors surrounded by nature. They seem to have had optimal experiences like those described by Csikszentmihalyi (2002), Laski (1961) Maslow (1969) and Turner (1969). These involved a sense of entering a heightened reality that included bonding with nature and each other as they become immersed in their music making. These immersive experiences are seemingly akin to what Schein (2017) has described as 'spiritual moments' and also have connections with Gelter's (2010) 'genuine *friluftsliv*' and Buber's (1937) existential philosophy of dialogue. Buber (1937) contends that we find meaning in life through dialogic encounters with other living things. Positioning ourselves as 'I' and other human beings as 'thou', Buber (2013) explains that 'in each thou we address the eternal thou.' (p.14). The 'eternal thou' is Buber's description of God and experiencing the eternal thou is to experience our innate spirituality. However, this can only be experienced if the encounter involves 'a man's life in direct relation with the life of another' (Buber 2003, 201). In other words the encounter must be free from hierarchy or an ulterior motive. This includes things in nature 'which we meet as our Thou'(Buber 2003,94).

These experiences also seemed to have contributed to improving the children's well-being. They involved feelings of joy, connection, wonder, awe and a sense of inner calm or peace. These improvements were felt during the experience, but were also reported as having a lasting significance on the children. For example, P2S6 explained that 'It changes the way you feel inside, as well as on the outside. Instead of just being my average self, you can actually feel like there's somewhere else to go where you can do something else or be somebody you want to be.'

Schein (2017, 135) argues that it is important that children 'experience moments of joy, awe, and peace', because 'during such moments a child's spiritual development is being nurtured.' Therefore, music making in nature can perhaps help children to experience spiritual moments, whereby they are able to stand outside of themselves and experience a heightened reality. As Hay and Nye(2006,157) argue 'spirituality is always concerned with self-transcendence. It requires us to go beyond egocentricity to take account of our relatedness to other people, the environment and, for religious believers, God.' These experiences also seem to have provided the children with an enhanced perception of their inner selves. They had seemingly been freed from the pressures of the ego during their music making and perhaps given a glimpse of their true identity, where they felt joyfully interconnected with each other, nature and the universe. This resonates with Dewey's assertion that art can allow us to be 'introduced into a world beyond this world which is nevertheless the deeper reality of the world in which we live in our ordinary experiences. We are carried out beyond ourselves to find ourselves.' (Dewey 2005, 202). As P2S2 stated 'I haven't done anything like that before, so it feels like a new person's come out of me and just taken over. It feels like another side of me that I hadn't known.'

These experiences may have an added significance beyond the transitory well-being of the child if, as Schein (2017) argues, they are helping to nurture the child's natural spirituality. As Rodger (1996, 59) explains, "the fundamental point that of first importance in spiritual development is *awareness* . . . awareness must come about through ek-stasis (ecstasy). The process of being taken outside the 'normal' (pre-structured) way of perceiving is a process of being put in touch with reality – with things as they are in themselves."

The data from this study suggests that the children's music making in nature seems to have allowed them to transcend their normal reality and experience spiritual moments. It is suggested that music making in nature may also provide children with beneficial conditions for accessing optimal experiences. Further research could explore how music making and immersive experiences in nature combine to create optimal experiences, which could be of value to the ongoing debates about how best to develop children's musical and spiritual selves.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Dylan Adams is a lecturer in Primary Education Studies at Cardiff Metropolitan University. He is a former primary school teacher and his research interests are Primary Education, Music Education, Outdoor Learning and Holistic Learning.

Gary Beauchamp is Associate Dean of Research at Cardiff Metropolitan University. He is a former primary school teacher and his research interests are ICT in Education, Teacher education, Music Education and Primary School Science Education.

References

- Adams, D., and G. Beauchamp. 2018. "Portals between Worlds: A Study of the Experiences of Seven Groups of Children Aged 7–11 Years from Six Different Primary Schools in Wales Making Music Outdoors." *Research Studies in Music Education* 40 (1): 50–66. doi:10.1177/1321103X17751251.
- Arvay, C. G. 2018. *The Biophilia Effect: A Scientific and Spiritual Exploration of the Healing Bond between Humans and Nature*. Boulder, CO: Sounds True.
- Best, R., and J. V. Kahn. 1996. *Education, Spirituality and the Whole Child*. London: Cassell.

- Bonnett, M. 2009. "Schools as Places of Unselving: An Educational Pathology." In *Exploring Education through Phenomenology*, edited by G. Dall'Alba, 28–40. Chichester: Wiley-Blackwell. doi:10.1002/9781444322828.
- Boyce-Tillman, J. 2009. "The Transformative Qualities of a Liminal Space Created by Musicking." *Philosophy of Music Education Review* 17 (2): 184–202. doi:10.2979/PME.2009.17.2.184.
- Bragg, R., C. Wood, J. Barton, and J. Pretty. 2013. "Measuring Connection to Nature in Children Aged 8–12: A Robust Methodology for the RSPB." *University of Essex*, Available at: Accessed 10 January 2019. http://rackspace-web1.rspb.org.uk/Images/methodology-report_tcm9-354606.pdf
- Buber, M. 1937. *I and Thou*. London: T and Clarke.
- Buber, M. 2003. *Between Man and Man*. London: Routledge.
- Buber, M. 2013. *I and Thou*. London: Bloomsbury.
- Cajete, G. 1999. "Reclaiming Biophilia: Lessons from Indigenous Peoples." In *Ecological Education in Action: On Weaving Education, Culture, and the Environment*, edited by G. A. Smith, and D. R. Williams, 189–206. SUNY Press.
- Charles, C. 2018. "Leading from the Heart of Nature." In *The Palgrave International Handbook of Women and Outdoor Learning*, edited by T. Gray, and D. Mitten. London: Palgrave Macmillan.
- Chawla, L. 2015. "Benefits of Nature Contact for Children." *Journal of Planning Literature* 30 (4): 433–452. doi:10.1177/0885412215595441.
- Clarke, C. 2013. *Ways of Knowing: Science and Mysticism Today*. London: Andrews UK Limited.
- Csikszentmihalyi, M. 1990. *FLOW. The Psychology of Optimal Experience*. New York: Harper & Row.
- Csikszentmihalyi, M. 1997. *Flow and the Psychology of Discovery and Invention*. New York: HarperPerennial.
- Csikszentmihalyi, M. 2002. *Flow: The Classic Work on How to Achieve Happiness*. New York: Random House.
- de Souza, M., and J. Watson. 2016. "Understandings and Applications of Contemporary Spirituality: Analysing the Voices." In *Spirituality across Disciplines: Research and Practice*, 331–347. New York: Springer.
- De Souza, M., and A. Halafoff, Eds. 2017. *Re-enchanting Education and Spiritual Well-being: Fostering Belonging and Meaning-making for Global Citizens*. London: Routledge.
- Dewey, J. 2005. *Art as Experience*. New York: Perigree Books. 1934.
- Doddington, C. 2014. "Education in the Open: The Somaesthetic Value of Being Outside." *Other Education: The Journal of Educational Alternatives* 3 (1): 41–59.
- Donaldson, G. 2015. *Successful Futures: Independent Review of Curriculum and Assessment Arrangements in Wales*. Cardiff: Welsh Government.
- Drisko, J. W. 1997. "Strengthening Qualitative Studies and Reports: Standards to Promote Academic Integrity." *Journal of Social Work Education* 33 (1): 185–197. doi:10.1080/10437797.1997.10778862.
- Ferrer, J. N. 2005. "Spiritual Knowing: A Participatory Understanding." In *Ways of Knowing: Science and Mysticism Today*, edited by C. Clarke, 107–142. London: Andrews UK Limited.
- Flutter, J. 2007. "Teacher Development and Pupil Voice." *The Curriculum Journal* 18 (3): 343–354. doi:10.1080/09585170701589983.
- Gelter, H. 2010. "Friluftsliv as Slow and Peak Experiences in the Transmodern Society." *Norwegian Journal of Friluftsliv*.
- Gendlin, E. T. 1997. *Experiencing and the Creation of Meaning*. Evanston. Springfield, IL: Northwestern University Press.
- Gill, T. 2014. "The Benefits of Children's Engagement with Nature: A Systematic Literature Review." *Children Youth and Environments* 24 (2): 10–34. doi:10.7721/chilyoutenvi.24.2.0010.

- Hargreaves, L., J. Moyles, R. Merry, F. Paterson, A. Pell, and V. Esarte-Sarries. 2003. "How Do Primary School Teachers Define and Implement 'Interactive Teaching' in the National Literacy Strategy in England?" *Research Papers in Education* 18 (3): 217–236. doi:10.1080/0267152032000107301.
- Hay, D., and R. Nye. 2006. *The Spirit of the Child*. New York: Jessica Kingsley Publishers.
- Laski, M. 1961. *Ecstasy in Secular and Religious Experiences*. London: Jeremy P. Tarcher, .
- Laurence, F. 2010. "Listening to Children: Voice, Agency and Ownership in School Musicking." In *Sociology and Music Education*, edited by R. Wright, 243–262. London: Routledge.
- Lee-Hammond, L. 2017. "Belonging in Nature: Spirituality, Indigenous Cultures and Biophilia." In *The SAGE Handbook of Outdoor Play and Learning*, edited by T. Waller, E. Årlemalm-Hagsér, E. B. H. Sandseter, L. Lee-Hammond, K. Lekies, and S. Wyver, 319–332. London: Sage.
- Louv, R. 2008. *Last Child in the Woods: Saving Our Children from Nature-deficit Disorder*. New York: Algonquin books.
- Louv, R. 2011. *The Nature Principle: Human Restoration and the End of Nature-deficit Disorder*. New York: Algonquin Books.
- Maslow, A. H. 1964. *Religions, Values, and Peak-experiences*. Vol. 35. Columbus: Ohio State University Press.
- Maslow, A. H. 1968. *Toward a Psychology of Being*. 2nd ed. New York: Van Nostrand Reinhold.
- Maslow, A. H. 1971. *The Farther Reaches of Human Nature*. New York: Arkana/Penguin Books.
- McLaughlin, T. H. 1996. "Education of the Whole Child." In *Education, Spirituality and the Whole Child*, edited by R. Best, 9–19. London: Cassell.
- Merleau-Ponty, M. 1962. *Phenomenology of Perception*. London: Routledge.
- Merry, R. 2004. "'Are We Allowed To...?' Teacher Autonomy and Interactive Teaching in the Literacy Hour." *Education 3-13* 32 (3): 19–31. doi:10.1080/03004270485200281.
- Morse, J. M., P. N. Stern, J. Corbin, B. Bowers, K. Charmaz, and A. Clarke. 2009. *Developing Grounded Theory: The Second Generation*. Walnut Creek, California: Left Coast Press.
- Morse, M. 2015. "Paying Attention to Perceptual Experience within Nature." In *Experiencing the Outdoors: Enhancing Strategies for Wellbeing*, edited by M. Robertson, R. Lawrence, and G. Heath, 113–122. Rotterdam: Sense Publishers.
- Moss, S. M. 2012. *Natural Childhood*, 166–171. London: National Trust.
- Moyles, J., S. Adams, and A. Musgrove. 2002. "Using Reflective Dialogues as a Tool for Engaging with Challenges of Defining Effective Pedagogy." *Early Childhood and Care* 172: 463–478. doi:10.1080/03004430214551.
- Nelson, P. L., and T. Hart. 2006. "Spiritual Experiences and Capacities of Children and Youth." *The Handbook of Spiritual Development in Childhood and Adolescence* 163: 177.
- Newby, P. 2014. *Research Methods for Education*. London: Routledge.
- Nolan, A., L. Paatsch, and J. Scull. 2018. "Video-Based Methodologies: The Affordances of Different Viewpoints in Understanding Teachers' Tacit Knowledge of Practice and Supports Young Children's Oral Language." *International Journal of Research & Method in Education* 41 (5): 536–547. doi:10.1080/1743727X.2017.1307958.
- Nye, R. 2009. *Children's Spirituality: What it is and Why it Matters*. London: Church House Publishing.
- Payne, P. G., and B. Wattchow. 2008. "Slow Pedagogy and Placing Education in Post-traditional Outdoor Education." *Journal of Outdoor and Environmental Education* 12 (1): 25. doi:10.1007/BF03401021.
- Powell, E. 2005. "Conceptualising and Facilitating Active Learning: Teachers' Video-Stimulated Reflective Dialogues." *Reflective Practice* 6 (3): 407–418. doi:10.1080/14623940500220202.

- Pratt, N. 2006. "'Interactive' Teaching in Numeracy Lessons: What Do Children Have to Say?" *Cambridge Journal of Education* 36 (2): 221–235. doi:10.1080/03057640600718612.
- Rea, T. 2008. "Alternative Visions of Learning: Children's Learning Experiences in the Outdoors." *Educational Futures* 1 (2): 42–50.
- Rodger, A. 1996. "Human Spirituality: Towards an Educational Rationale." In *Education, Spirituality and the Whole Child*, edited by R. Best, and J. V. Kahn, 45–63. London: Cassell.
- Salisbury, J., C. Ellis, G. Beauchamp, and C. Haughton. 2011. "What's Occurring? the What, Why, How and When of Research Capacity Building in a Modest Pilot Project with EAL Learners and Science." *Welsh Journal of Education* 15 (1): 46–65.
- Schein, D. L. 2017. *Inspiring Wonder, Awe, and Empathy: Spiritual Development in Young Children*. New York: Redleaf Press.
- Schein, D. L. 2018. *Inspiring Wonder, Awe, and Empathy: Spiritual Development in Young Children*. St. Paul: Redleaf Press.
- Sefton-Green, J. 2006. "New Spaces for Learning: Developing the Ecology of Out-of-school Education, Hawke Research Institute Working Paper Series, 35." [Online], Available at: www.unisa.edu.au/hawkeinstitute/documents/wp35.pdf
- Swank, J. M., C. Cheung, A. Prikhidko, and Y. W. Su. 2017. "Nature-based Child-centered Group Play Therapy and Behavioral Concerns: A Single-case Design." *International Journal of Play Therapy* 26 (1): 47. doi:10.1037/pla0000031.
- Tanner, H., and S. Jones. 2007. "Using Video-stimulated Reflective Dialogue to Learn from Children about Their Learning with and without ICT." *Technology, Pedagogy and Education* 16 (3): 321–335. doi:10.1080/14759390701614454.
- Tanner, H., S. Jones, and H. Lewis. 2010. "Metacognition in the Foundation Phase: Using VSRD to Help Young Children Talk about Their Thinking." *The Welsh Journal of Education* 15: 66–79.
- Turner, E. 2012. *Communitas: The Anthropology of Collective Joy*. New York: Springer.
- Turner, V. 1967. *The Forest of Symbols. Aspects of Ndembu Ritual*. New York: Cornell University Press.
- Turner, V. 1969. *The Ritual Process. Structure and Anti-Structure*. London: Aldine Transaction.
- Turner, V. 1974. "Liminal to Liminoid, in Play, Flow, and Ritual: An Essay in Comparative Symbolology." *Rice Institute Pamphlet-Rice University Studies* 60 (3): 53–92.
- Turner, V. 1977. "Chapter III: Variations on a Theme of Liminality." In *Secular Ritual*, edited by S. F. Moore and B. F. Myerhoff, 36–52. Assen: Gorcum.
- Tyrie, J., and G. Beauchamp. 2018. "Children's Perceptions of Their Access to Rights in Wales: The Relevance of Gender and Age." *International Journal of Children's Rights* 26 (2018): 781–807. doi:10.1163/15718182-02604005.
- Van Manen, M. 2016. *Phenomenology of Practice: Meaning-giving Methods in Phenomenological Research and Writing*. London: Routledge.
- Waite, S. 2011. *Children Learning outside the Classroom*. London: Sage.
- Waite, S., M. Bølling, and P. Bentsen. 2016. "Comparing Apples and Pears?: A Conceptual Framework for Understanding Forms of Outdoor Learning through Comparison of English Forest Schools and Danish Udeskole." *Environmental Education Research* 22 (6): 868–892. doi:10.1080/13504622.2015.1075193.
- Warden, C. 2015. *Learning with Nature: Embedding Outdoor Practice*. London: Sage.
- White, J. 1996. "Education, Spirituality and the Whole Child: A Humanist Perspective." In *Education, Spirituality and the Whole Child*, edited by R. Best, 30–42. London: Cassell.
- Whyte, B., D. Fraser, and V. Aitken. 2013. *Connecting Curriculum, Linking Learning*. Wellington: New Zealand Council for Educational Research.
- Wilson, E. O. 1984. *Biophilia*. Cambridge (Mass.): Harvard Press.
- Wilson, R. 2018. *Nature and Young Children*. London: Routledge. doi:10.4324/9781315148533.