

Original Research Article

Portals between worlds: A study of the experiences of children aged 7–11 years from primary schools in Wales making music outdoors

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Abstract

There has been increasing interest in the educational value of outdoor learning around the world and in the United Kingdom. This is reflected in the statutory curricula of each country. At present, however, there has been little research into the potential of music-making in the outdoors. This study investigated how changing the physical location of learners' music-making to outdoor environments impacted on children aged 7–11 years. Seven classes of children and their teachers, from six different primary schools, created music for a ceremonial performance in various outdoor locations in Wales. These activities were video-recorded and after their musical performances, the children were interviewed using video-stimulated reflective dialogue (VSRD) in semi-structured interviews. Their teachers also took part in semi-structured interviews, but without the use of VSRD. The resultant iterative analysis of data revealed four overlapping and interwoven themes: freedom, emotion, senses and agency. In addition, the interviews revealed that the combination of the setting (including the ritual structure of the activity), the move from the school setting and the four themes (emotion, senses, freedom, agency) contribute to create a 'vortex' effect, potentially drawing the children into a state of liminality and peak experience, before achieving a state of calm focus. All of these factors are summed up in a tentative model of the impact of music-making outdoors with children aged 7–11 years.

Keywords

Primary education, music, outdoor learning, children's agency, musical experiences, flow

Introduction

In recent years there has been an increasing interest in the educational value of outdoor learning around the world (for instance, Ampuero, Miranda, Delgado, Goyen, & Weaver, 2015; Dillon et al., 2005; Dolan, 2016; Gray & Martin, 2012; Rickinson et al., 2004; Scrutton, 2015; Vanderbeck, 2008). This is particularly true in the United Kingdom (UK) (Sefton-Green, 2006; Waite, 2011) and is reflected in varying degrees and emphases within the relevant curricula of Wales, England, Scotland and Northern Ireland. Despite growing differences between different parts of the UK (Beauchamp, Clarke, Hulme, & Murray, 2015), each country has a statutory requirement for children to experience outdoor learning. In Wales, where the study reported below took place, the early years Foundation Phase curriculum (for children up to age seven years) states[AQ2]

Indoor and outdoor environments that are fun, exciting, stimulating and safe promote children's development and natural curiosity to explore and learn through first-hand experiences. The Foundation Phase environment should promote discovery and independence and a greater emphasis on using the outdoor environment as a resource for children's learning. (DCELLS, 2008, p. 4)

In Scotland, Curriculum for excellence through outdoor learning asserts that 'the journey through education for any child in Scotland must include opportunities for a series of planned, quality outdoor learning experiences' (Learning and Teaching Scotland, 2010: 5); whilst in Northern Ireland, Learning outdoors in the early years (Bratton, Crossey, Crosby, & McKeown, 2005) suggests that 'outdoors is an equal player to indoors and should receive planning, management, evaluation, resourcing, staffing and adult interaction on a par with indoors' (p. 11).

This move to outdoor learning is, however, not a straightforward process. Although outdoor learning 'provides a context for learning in many areas: general and subject based knowledge; thinking and problem-solving skills; life skills such as co-operation and interpersonal communication' (DfES, 2006, p. 2), there is still a need for stronger empirical and conceptual understandings of learning in the outdoor classroom (Dillon et al., 2005; Rickinson et al., 2004). In addition, Sefton-Green (2006) warns that the potential value of outdoor learning is not being realized because the value-judgements and conventions that apply to the classroom are merely being transferred outside. This is important, as Waite (2011) claims that 'the value of working outside the classroom is in providing pupils with experiences that are different from those inside it. ... We want them to learn to behave in ways that are different to classroom behaviour' (p. 14).

Overcoming these potential obstacles is important as increased use of outdoor learning has great potential in music education. Not only does it introduce opportunities for new pedagogies, but in musical terms it also introduces new, and sometimes unfamiliar, soundscapes (such as noise from waves, or echoes in a cave), which can provide both emotional stimulus and thematic material for compositions. One feature of the outdoor soundscape is the presence of new and unfamiliar sounds, but also it can mean the absence of some sounds, particularly those which may be labelled 'noise'. The ability to potentially avoid extraneous noise, which is present in many school settings, is significant in music-making as 'noise presents at least 4 threats: diversion of attention and disruption of behavior, habituation or "learned deafness", masking of important signals, and spurious physiological stimulation' (Hatch & Fristrup, 2009, p. 224). Waite (2011) also highlights another potential benefit when noting that, when outdoors, children are concerned with the minutiae of things which they may ordinarily have missed. For instance, they are naturally curious about the exact source of every sound they hear, unless an over-abundance of noise or movement inhibits this curiosity. Waite asserts that 'to listen properly, children need to see, and have a sense of sound in relation to themselves. As they listen and as they see, they are naturally taken by their curiosity to discover more about that which has taken their attention' (2011, p. 120).

In addition, a move to making music outdoors allows children to explore the significance of the history of the place chosen, as 'it is essential that ... educators consider carefully the ways in which outdoor experiences introduce participants to particular "stories" of the land, whose land it is or had been, and how it has changed over time' (Stewart, 2008, p. 82). In the research below, exploring the potential 'stories' of the sites chosen for music-making was a key stimulus in musical activities and the participants were encouraged to take inspiration from where they were, and use all the senses to explore their location and to include the environment in their music-making.

Methods and sample

The impetus for this project was the work of one of the research team as a facilitator of musical activities for children aged 7–10 years at historic venues in association with historical national organizations and museums. As well as the inherent value of these activities as music in their own right, the activities also presented a unique opportunity to explore and reflect on the impact of making music outdoors with children this age, particularly from their own perspective and using their own words.

The research was therefore premised on the belief that ‘all school pupils have a right to be consulted and to have their voices listened to. ... [as] ... It cannot tenably be claimed that schooling is primarily intended to benefit pupils if pupils’ own views about what is beneficial to them are not actively sought and attended to’ (McIntyre, Pedder, & Rudduck, 2005, p. 150). Nevertheless, it was important that teachers were also given a voice. In this exploratory study, the children (henceforth called pupils to reflect their position as learners) and teachers worked as co-researchers, where the research is done with, rather than to, the pupils. This approach therefore had potential benefits not only for the pupils, but also allowed teachers to gain a deeper understanding of teaching and learning, which can change the way they think about pupils and their learning (Flutter, 2007).

The music-making was undertaken in rural locations in north and south Wales in the UK, most with strong prehistoric context, but also some with no particular historical significance, such as a beach. The children were taken as a class (around 30 children) to the outdoor setting. The activities reported here built on, and extended, their previous experience of music-making as part of statutory classroom music teaching required by the national curriculum in Wales. The research involved seven groups of children from six different primary schools over a two-year period. Table 1 shows the sample size and location of the musical activities.

Table 1.

Sample Size and Location of the Musical Activities.

	School 1	School 2	School 3	School 4	School 5	School 6
Sample size	49	25	28	28	25	30
Number of pupils interviewed	9	5	8	6	5	5
Age	7–9 years old	9–10 years old	9–10 years old	9–10 years old	9–10 years old	9–10 years old
Number of teachers/practitioners interviewed	Two teachers	One teacher	One teacher	Two teachers	One teacher One LSA	One teacher One LSA
Location	Palaeolithic cave	Neolithic chamber and field	Field containing Neolithic burial chambers	Beach	Beach	Field containing Neolithic burial chambers

LSA: learning support assistant

Once at the outdoor location, the children were challenged to create music for a ceremonial performance, which they then performed at the setting. These ceremonies were to celebrate

aspects of the environment and the pupils were encouraged to imagine that they were, for instance, a Neolithic tribe making music for a performance ritual thousands of years ago. Making the performance a ceremony was a deliberate attempt to give their music-making more authenticity by giving it a purpose. The music was to be integral to the ceremony and was the main focus of the activities, but the children had complete autonomy over their performance. They were therefore given permission to alter or enhance their composition 'in the moment' of their performance if they felt the alterations suited the atmosphere of the ritual. The teachers who accompanied the staff were only observers and therefore did not detract from the pupil autonomy.

The overall aim was that the outdoor locations, coupled with the improvisational and autotelic nature of their musical rituals, would inspire the children to feel as though they were experts or artists, even if they had previously not felt as if these roles were accessible to them. They were challenged to imagine what prehistoric music may have sounded like, using the instruments provided: animal skin frame drums, djembes, wooden flutes and bone flutes. Words were not permitted in the music, but vocal sounds were allowed. This was an attempt to make their music free from the cultural constraints of emulating any specific genre of music and attempting to avoid potential pastiche. It should be noted here, however, that the use of the ritual as a stimulus for music-making was mainly an attempt to provide a free structure for children to work in.

Each class of children was led by one of the research team as part of ongoing music-making activities in the project schools. Hence the pupils were familiar with his pedagogic approach in school, so that this would not influence their performance in the outdoor locations. This also meant that the only variable that was changed was the environment (from inside school to outdoors), allowing us to analyse its impact with greater confidence. This led to the potential for researcher bias for this member of the team but, as Drisko (1997) points out, it is possible to limit bias through self-awareness. With this in mind, exchanges between this researcher and the children were kept to a minimum to avoid these interactions affecting the findings. Another member of the research team was not involved in the musical activities and provided an external perspective in the later analysis. The pupils' normal class teachers were present in accordance with statutory supervision requirements, and they observed (non-participant observers), but did not take any part in, the performances.

Methods

Before beginning research, ethical approval was gained through the university ethics process and informed consent was gained from all participants. Each musical activity was filmed to provide the stimulus for subsequent semi-structured group interviews with the children (n=5/6 in each group) using video-stimulated reflective dialogue (VSRD). VSRD is an established research tool which has been used in research with both teachers (for example Hargreaves et al., 2003; Morgan, 2007; Powell, 2005; Pratt, 2006; Tanner, Jones, & Lewis, 2010) and pupils (Salisbury, Ellis, Beauchamp, & Haughton, 2011; Tanner & Jones, 2007) as it is effective in initiating dialogue between participants and interviewers. Indeed, the use of dialogue is central to the process of VSRD, which distinguishes it from video stimulated recall or video stimulated reflection. The dialogue is initiated by a 'collective exchange ... intended to result in a synergetic pooling of information which extends the concepts involved' (Moyles, Adams, & Musgrove, 2002, p. 465).

After each performance, the group of children were first shown a film of their music-making, followed by semi-structured questions about their experiences. The children's teachers also took part in individual semi-structured interviews about their views of the children's experiences. These interviews did not use the videos as the teachers had been non-participant observers at the actual

performances. It was also felt they could recollect events sufficiently well for discussion without the stimulus it provided.

All interviews with both children and teachers were recorded, transcribed and then coded through an iterative process of thematic analysis. A grounded theory approach was taken to the data, with no preconceived categories or codes (Morse et al., 2009). During the analysis, themes emerged and were refined from initial codes to more focused codes, leading to the final themes discussed below. An example of this was an initial finding that 'rhythm' seemed to be a key word that was mentioned repeatedly in the responses. However, repeated analysis suggested that the key concepts being expressed were authenticity and autonomy. This was because the responses repeatedly stressed how important it was that the children had composed their own rhythm and that the rhythm was appropriate for the performance or mood of the ceremony.

Results and analysis

Examining the responses of the children making music outdoors suggested they saw a number of positive benefits, which were supported by the views of the teachers of each class. These benefits were grouped in four overlapping themes, which are summarized below.

Freedom. The pupils' responses suggest they felt 'freer' and more confident about their music-making when making music outdoors.

Emotion. The pupils' music-making seems to have emotionally engaged them and may have enhanced their empathetic and imaginative abilities.

Senses. The pupils appear to be acutely aware of their senses, their surroundings and the impact of the acoustical environment.

Agency. The pupils outlined a sense of agency that is felt due to the autonomy and authenticity of the children's music-making.

Each theme will now be discussed in detail. As no significant differences emerged concerning gender, school or setting, the quotations used to exemplify themes are not individually coded to reflect these variants, but rather are chosen to best reflect a typical response. However, codes have been provided to document the data source and date.

Freedom

A recurring theme from the interview responses from both teachers and pupils was one of freedom. The teachers talked of how they perceived that making music outdoors empowered the pupils with a greater sense of freedom. Examples given included,

The environment was encouraging and gave the children enthusiasm and confidence to participate. (TC1, VSRD, 16 October 2015)

They were far less inhibited than if they were in classroom situation. You could see that in their music-making, in their performance. (TC2, VSRD, 16 October 2015)

They were inspired to be more creative and experimental by the exciting environment. (TC3, VSRD, 11 October 2015)

This is both because of the physical space of the outdoor locations and also because of a perceived freedom that was gained by being released from the constraints of the classroom culture and school

environment – such as the school classroom or hall. This was highlighted in the responses from both classes of children who made music in the field when they stated

It's outdoors you've got the grass and the background, but if you're doing it on stage it would be on a big big hall there's seats, but (there) there's grass ... you can stand up ... it's like outdoors you've got the nice wind so you don't get hot ... it's outdoors and you're free ... you're just free. (PupilSN1, VSRD, 7 September 2015)

Inside you can't run around as much, you haven't got the trees inside and the grass. You've got more space; you get into it more, you get into the spirit more and that goes really well because you know what you're doing. You like time travel whereas in school you're like work-playtime, playtime work and you don't get into the spirit of it as much. (PupilSN2, VSRD, 7 September 2015)

The responses from the children who made music on the beach also refer to a sense of freedom due to the greater physical space

[in school] there's not much space for people to be walking around at the same time whereas on the beach there's more space and there's not many people walking around. (PupilB1, VSRD, 11 October 2015)

Because if you went around here you'd imagine like work and school and all that, but then once you go down the beach you imagine like ... freedom, happiness. (PupilC2, VSRD, 11 October 2015)

Those children who made music in a more enclosed environment in the cave nonetheless echoed the theme of freedom when they stated

It was much better in the cave because we were in the wild and in the dark. In the hall is just like [sic] singing in assembly. (PupilM4, VSRD, 16 May 2013)

I felt it was really free because no-one else was there so we could do what we wanted with our dance and the music so we could do it quite loud and no-one would be listening to it except people in the cave with us. (PupilM3, VSRD, 16 May 2013)

You wouldn't be able to do that like run around like animals inside and make any sound and stuff because there's no certain script you have to follow so you were free to do what you want and your music could sound however you wanted. (PupilM5, VSRD, 16 May 2013)

The children also talked of greater freedom from other less obvious parts of the school environment, such as freedom from their perceived need to be 'right', or follow accepted conventions in music-making, in their normal school lessons. They felt more able to make mistakes or take risks in the outdoor environment and stated

Obviously in school we're just like playing a beat like that ... and then there [outdoors] we were actually like feeling it. Cos, like, in school you're just dah, dah, dah, dah like that and then in that actual thing [outdoors] it was more better because everybody, like, really made an effort in it. (PupilB3, VSRD, 16 May 2015)

When you were making music in school, it felt like you were just having a normal music lesson, but when you [sic] there you felt like you were in it. (PupilB4, VSRD, 16 May 2015)

The pupil's responses suggest that the outdoor location had emboldened them to be freer with their music-making and take ownership of the music they produced. For instance, they reported that

We made it [the music], so no-one can tell us how to play it ... how it's done ... yeah, it's ours ... it's only us that can correct it and stuff because we were the makers of the music ... (PupilLFP4, VSRD, 21 June 2013)

Inside you're like doing what people say, but when you're outside you can do what YOU want to do because there's no-one bossing you around. (PupilPSE1, VSRD, 12 June 2014)

The idea that music-making can inspire a sense of freedom is supported by Swanwick (1994), who states that, 'music does more than remind us of and reinforce our own local cultural values ... it takes us outside ourselves and enlarges our range' (p. 172).

Emotion (the world of feeling and imagination)

The second theme that is present from the data is 'emotion'. It seems this emotion or world of feeling is linked with the children's imagination. As is already evident in some of the responses above, the music-making invoked an emotional response. This emotional response enabled the learners to enter a world of imagination. This is exemplified in the following quotes by children from each of the four different sites.

The music ... when we were playing like everyone was giving a message to the clouds! (PupilLFP1, VSRD, 24 June 2015)

it felt like you had all these people with white paint on their faces, dancing round the campfire ... it felt like you were one of them ... if it was at school I wouldn't have felt like that because of the atmosphere of the place. I felt like I was actually one of the people! (PupilLFP4, VSRD, 24 June 2015)

I could imagine our ancestors dancing to our rhythm! Once we started playing the music I couldn't like see them when I walked in, but when they all started playing the music and I started playing the music I saw them. It's something about the music, the rhythm, I think ... that makes us feel ... we've gone back in time ... because once I started playing I just did not want to stop because I kept on looking at and looking at them and I just didn't want to say goodbye to them. (PupilLFP2, VSRD, 24 June 2015)

Yeah we made music come to life yeah everything came to life with the rhythm and everything and like I could imagine people dancing around the fire. (PupilLFP3, VSRD, 24 June 2015)

In each of these examples the children talk about imagining that they had gone back in time. The music seems to be immersive and acts as a catalyst to allow the children to enter an imaginary world where they are able to 'see' the prehistoric past in their imagination. The responses of the teachers reinforce this idea when they stated

The children were swept along with the feeling generated by making music in a cave that had been inhabited by Palaeolithic peoples thousands of years ago! (TM1, VSRD, 16 May 2013)

When performing, the children were totally focused, you really got the impression they were empathizing with their ancestors 6000 years ago! (TSN1, VSRD, 7 September 2015)

Similarly, other teachers highlighted an emotional response by the children as they talk about what the children 'felt' when they made their music.

They felt it and just seemed to get it ... it was lovely to see when you're doing it in the outside in comparison to the classroom; some of the girls who were involved in that were a little bit coy and then you go outside and they really go for it. They really had a good go at it, they really felt it, they felt the power of it. (TC2, VSRD, 16 October 2015)

Other teachers talk about how it was 'emotionally beneficial' to the children.

Emotionally it was beneficial also. It helped their emotional well-being. It linked with our physical literacy agenda, but also they learn more when they move, their bodies experience it as well as their minds. (TM2, VSRD, 16 May 2013)

The children were able to have the freedom to express themselves through music, dance and drama, displaying the emotions of our ancestors. (TSN1, VSRD, 7 September 2015)

There also appears to be a belief expressed by many of the children that an improved emotive experience means an improved imaginative experience, and that this in turn will affect their music-making. Representative comments included

My mind helps me to imagine and that helps my music. (PupilB5, VSRD, 16 May 2015)

Like what was going on in my mind was like ... when you like can do a performance on a stage in school you feel like it's a massive massive audience, but a tiny space. But when you're at Tinkinswood if you like did a show you can make it up, run around make any sounds you like, and go mad crazy. (PupilSN5, VSRD, 7 September 2015)

Senses

Another consistent theme which emerged from the data from all the groups of children was a heightened awareness of their senses. There appears to be a particularly improved experience influenced by the acoustical environment. The following responses come from children who made music in the cave.

... there was like a cave and the noise gets trapped, it was amazing!

When we were sitting down you could actually feel the vibration of the music on the floor of the cave. You could feel the beat of the music! (PupilM1, VSRD, 16 May 2013)

They were good vibrations ... because I haven't ever felt my music before! (PupilM4, VSRD, 16 May 2013)

An increased acoustical awareness inside a cave is perhaps not surprising. However, the responses of the children who did not make music in a cave continue to support this theme.

You could hear it louder because it was bouncing everywhere, all the sound was like everywhere ... it was like ... like a whole world! (PupilM3, VSRD, 16 May 2013)

... we could just make any sounds we want. And we could hear more sounds like birds tweeting and all that. (PupilSN2, VSRD, 7 September 2015)

It felt like a herd of elephants jumping on the floor! The vibration made you want to move and to dance! (PupilM2, VSRD, 16 May 2013)

It was really like we were sending a message to the gods, because the music was going out everywhere; it echoed. (Pupil LFP2, VSRD, 21 June 2013)

Once more, the teachers echoed the views of the children by stating

Atmosphere and acoustics made the music feel real and the result left the children with a real sense of achievement. (TM1, VSRD, 16 May 2013)

... just being able to see the colours of the environment, the rocks, the sky. When they see those colours in the environment that makes such a difference and seems to have helped their performance. (TC1, VSRD, 16 October 2015)

The teachers suggested that the impact of this increased sense of awareness was a calming influence on the children that allowed them to focus. Two of the teachers describe it as being 'tranquil' while others suggested that

Even when they were playing the drums loudly the children seemed to have a calm focus ... they were always totally in tune with the appropriate ceremonial etiquette. (TSN1, VSRD, 7 September 2015)

The sounds of the sea in the background and the natural rhythm of the waves and the sound. It all adds to that sense of place to the overall experience. There's a more tranquil space. (TB1, VSRD, 11 October /2015)

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. It is all encompassing, sight, hearing, smell and more than that ... it focuses them and calms them also. (TC2, VSRD, 16 October 2015)

This observation by these teachers of the psychological effect the experience seems to have provoked in the children appears to be reinforced by the following extract from one of the group interviews.

Child A: only thing you can hear is the waves going in and out. The first step on the beach you just feel like ... aaahhhh! Like no-one's stopping you from doing what you want. (PupilC2, VSRD, 11 October 2015)

Child B: Yeah you know it's like you came down the beach and you were all stressed. You stepped onto the sand and you put your feet all into the sand and then you were like aaahhhh. (PupilC1, VSRD, 11 October 2015)

Interviewer: what about the sounds in school? You said they were important.

Child A: Yeah it sort of disrupts you because you want to concentrate; you can't concentrate because you want to know what's going on ... it interrupts you ... (PupilC2, VSRD, 11 October 2015)

Child B: You want it to be peaceful in the classroom, so then you can actually feel your emotions. There's loads of noisiness around you and you just can't concentrate ... you're more curious in the hall ... what's going on around you. But on the beach it just doesn't matter. You can hear the sea and the birds and ... it doesn't matter. (PupilC1, VSRD, 11 October 2015)

These responses chime with Blacking's (1987) observations on the significance of the fact that music-making is contained within the body, but also accord with Juntunen and Westerlund's (2001) view that, 'the feeling, sensing and experiencing body is engaged with musical sounds in many ways, whether we are aware of it or not' (p. 204). The children's and teachers' responses appear to support this view of the physical and psychological expressive ability that music has, especially when combined with dance.

Agency (autonomy and authenticity)

A fourth theme that was present throughout the pupil data was agency, or ownership and autonomy, over the music and that having a purpose for their performance gave it authenticity and was a vital ingredient for its success. The following responses from the children capture this sense of ownership when they stated

I didn't want to go because it felt like I didn't want to go, I felt the rhythm of the place ... of my music ... like I was leaving a memory or something there. I wanted to camp there all night ... you wouldn't be able to get the rhythm if there was a lot more people ... the music felt like it was magical at that time and was ours. (PupilLFP2, VSRD, 21 June 2013)

It was our rhythm ...we wanted to give it more energy into the music and dance, but when it was going down we wanted to give it less and less energy because there was a special rhythm and it was ours. (PupilLFP3, VSRD, 21 June 2013)

The perceived authenticity of the music, that is it was not performing the music of others, is summed up by the following pupil quotes

Yeah that rhythm was all made up. Like we made that rhythm up at that moment, it wasn't out of like ... a box ... or a book or any other music or anything; we made that music out of ourselves ... out of everything, we made music come to life! (PupilLFP1, VSRD, 21 June 2013)

We were in the music, ... they were just doing their own rhythm and it was like they had actually gone into their music as if they just got it off by heart from the feelings that they had. (PupilLFP2, VSRD, 21 June 2013)

Because it was our rhythm you try to put more feeling into the songs (music) that you're playing yeah more emotion, feelings er ... energy ... it's like if you made a mistake they would just forgive you and ... time back ... or something, so you could play it better again just let you carry on. (PupilSN2, VSRD, 7 September 2015)

Discussion

The four themes outlined above seem to inter-relate and overlap. At the nexus of these four themes there seems to be an immersion in the music-making that allows the children to lose their sense of time and even imagine that they are in a different reality. At this central point pupils suggest that they become calmer and more focused. Their responses strongly suggest that many of them believed that they entered a 'different world' during their music-making. This is not to suggest that they unknowingly lost touch with reality, but rather that they used the willing suspension of disbelief to travel to a different reality. It is as if their music-making outdoors had opened a door to a new way of experiencing the world and themselves, if only for the time of their performances. We therefore suggest tentatively that making music in an outdoor space has special potential to explore a metaphysical space and that their music-making can be the vehicle for this journey.

This seems to resonate with the idea of liminality, that is, experiencing things differently and 'being' in a different place ([Boyce-Tillman, 2009](#); Turner, 1967, 1969). For instance, pupils suggested

Yeah we made music come to life, yeah, everything came to life with the rhythm and everything and like I could imagine people dancing around the fire. I forgot everything else and didn't care, I was just there. (Pupil LFP3, VSRD, 21 June 2013)

The cave is so much better because you just get to be yourself and be really loud ... you feel relaxed and get this really buzzing feeling all the time. (PupilM4, VSRD, 16 May 2013)

When you're there you get into it more because like the chamber is right in front of you; you get into the spirit more, and then like it goes really well because you know what you're doing because it is like ... um, you've time travelled back to 6000 years ago ... as if you're actually there. (PupilSN3, VSRD, 7 September 2015)

In the following responses the pupils talk of feeling at one with everyone, which reflects Blacking's (1987, p. 61) notion of phylic communion, 'the sense of being members of the same species'. He continues to suggest that this along with the 'heightened perception of the world that it provides are major subjects of music and the arts' (1987, p. 61).

In many of the interviews the pupils described this 'communion' with each other, but also with the music, stating

We were the music! (PupilLFP1, VSRD, 21 June 2013)

We made the music and there was a rhythm to it ... Our rhythm ... our music ... we made it so no-one can tell us how to play it how it's done. (PupilSN3, VSRD, 7 September 2015)

Yeah, it's ours ... it's only us that can correct it and stuff because we were the makers of the music ... yeah ... we were all felt like as one together, us and the music; it felt like we were the music! (PupilLFP2, VSRD, 21 June 2013)

Such responses, and others in the data, also seem to suggest that the music-making also resonates with Csikszentmihalyi's (1990) theory of 'flow' and Maslow's 'peak experiences' (Maslow, 1968). Csikszentmihalyi and Robinson (1990) explain that when we are fully engaged in a creative activity and there is real 'flow', then the experience has an added significance as we develop 'sensitivity to the being of other persons, to the excellence of form, to the style of distant historical periods, to the essence of unfamiliar civilizations. In so doing, it changes and expands the being of the viewer' (p. 183).

Some of the children also talked about how this spiralling liminality and peak flow can induce a calming effect. It is perhaps counter-intuitive to expect children to feel calm when drumming and dancing outdoors, but they stated

I think it's a lot better outside because I think it does make you feel happy, because all the trees are moving and you can just see nature and things that you wouldn't really see inside, and it's just so pretty. And then you can just get all calm when you're making music or dancing. (PupilSN1, VSRD, 7 September 2015)

It makes me feel good and excited, kind of calm, but good as well. Before I was a bit worried but after I felt great. (Pupil PSE2, VSRD, 12 June 2014)

... it was really enjoyable being there because, like, when you did it there like, you've got a lot more things to do. ... But there you've got a bit more space and everything ... more head space and you feel more calm. (PupilC3, VSRD, 11 October 2015)

This theme is once again reinforced by the teachers' responses.

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. It is all encompassing, sight, hearing, smell and more than that ... it focuses them and calms them also. (TC2, VSRD, 16 October 2015)

It was very impressive, their reaction; my initial thoughts would be that they would be distracted about being in a different environment like being down the beach, but no, they were more focused. Taking them out of the classroom wasn't a distraction; in fact they were more comfortable and more at one with their environment. For our children this is very important because there were children in the class who can get easily distracted. (TC1, VSRD, 16 October 2015)

You naturally expect them to be over-excited and over-stimulated, but it didn't happen. They were both calm and focused. (TSN1, VSRD, 7 September 2015)

This calm focus appears to be result of the state of liminality and peak experience, but these are intrinsically linked to the impact of the overlapping four themes (freedom, emotions, senses and agency) identified earlier in this article. These themes are in turn the result of the impact of the outdoor setting.

In attempting to model the relationship, we need to note that not all children will achieve the state of calm focus. Nevertheless, we can suggest that the combination of the setting (including the ritual structure of the activity) and the move from the school setting leads to the emergence of the feelings of freedom, emotions, sense and agency. This combination of influences, however, is not linear, but interwoven and overlapping, and should not necessarily be regarded as equal or mutually exclusive. The data suggest that all factors contribute to create a 'vortex' effect, potentially drawing the children into a state of liminality and peak experience before achieving a state of calm focus. Figure 1 attempts to summarize the impact of making music outdoors for children aged 7–11 years.

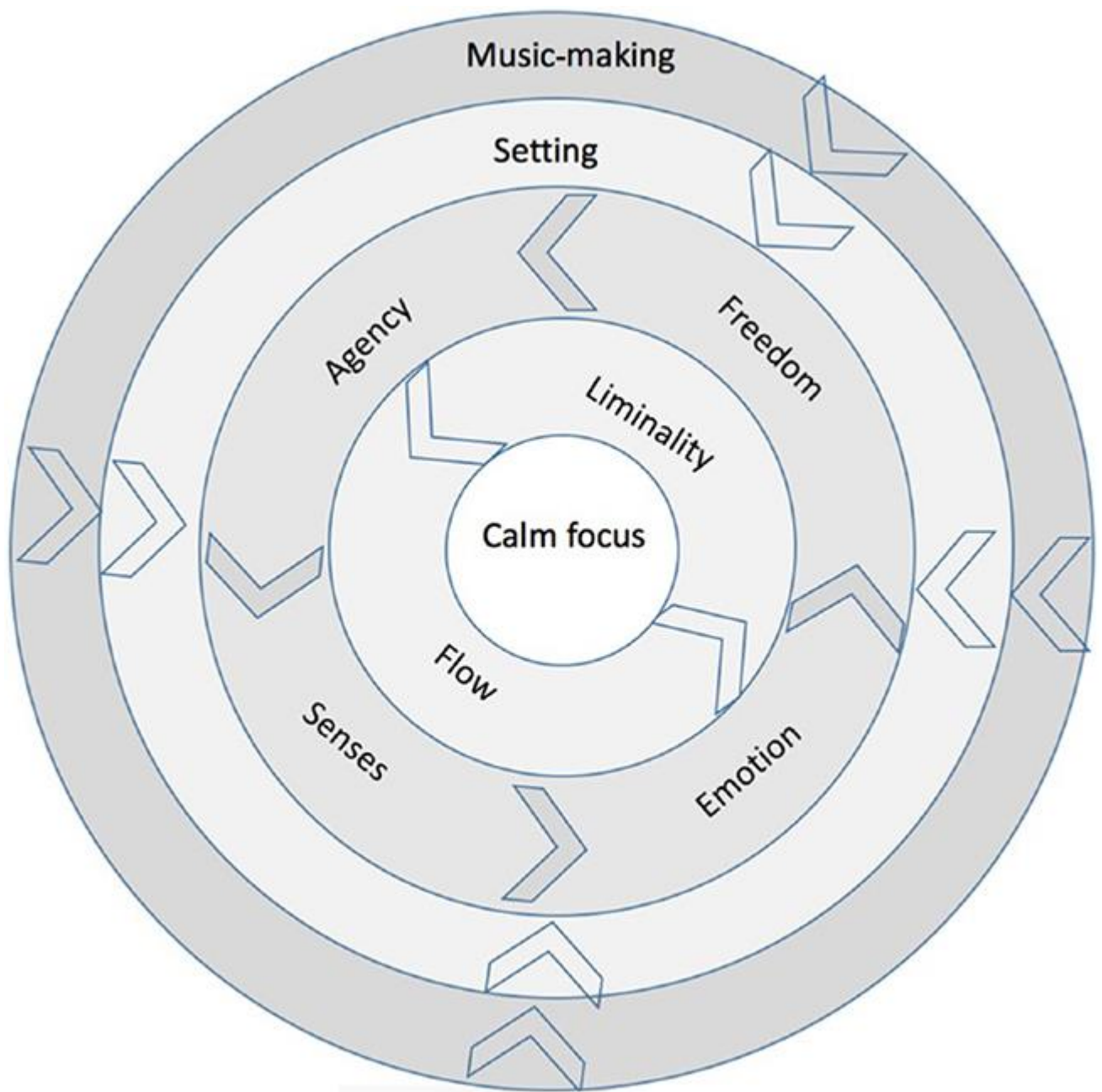


Figure 1. Model of music-making outdoors for pupils aged 7–10 years.

While this model must remain necessarily tentative, as it is based on a small sample size in one country, we hope that it has the potential to stimulate debate about the impact of making music outdoors with young children.

Implications

The data produced by this research appear to suggest that there are many positive potential intrinsic and extrinsic benefits in making music outdoors for both practitioners and pupils. Crucially, these benefits seemingly affect the pupils in more powerful ways than would be experienced when making music in school. Both the children's and teachers' responses seem to highlight how the musical engagement in different outdoor environments triggered the pupils' imagination and enabled them to more easily imagine peoples and cultures beyond their everyday experience (Swanwick, 1994). These heightened imaginative abilities seem to have been engendered by the 'freedom' felt in the

out-of-school environment. This would appear to imply that further music-making experiences taking place in out-of-school locations could similarly magnify the pupils' imaginative abilities.

This new freedom and increased imagination were also enhanced by the autonomous nature of the pupils' music-making. Practitioners should therefore recognize that it is not always what they do, but what they do not do, that is important. The evidence in this study suggests that providing contexts beyond the classroom, where pupils have greater autonomy in music-making, can be a catalyst for more innovative music-making and use of sound in the future. Given the views the pupils outlined regarding the perceived boundaries (both physical and those imposed by school's rules and implicit expectations of behaviour) in music-making within schools, teachers may need to adopt a different, less didactic, pedagogy when working outside of the classroom. It may seem counter-intuitive, but in this case the less the teachers 'teach', the greater the potential benefits for the pupils.

According to both pupils and teachers, making music in an out-of-school environment had created an elevated sensory experience. The comments claim that this elevated experience had been facilitated, at least in part, because of the rural nature of the environments. For example, the sonic experience was amplified, often literally because of the acoustics, but also metaphorically because the pupils were able to hear the direction and movement of their sounds and in some cases to actually feel the sound's vibrations. Being free from excessive noise pollution and sensory overload in addition to the musical engagement itself seemingly raised the pupils' sensory awareness and this raised awareness was integral to, and complemented by, their music-making. Again, this would imply that further music-making out-of-school may boost the pupils' sensory capabilities and thus contribute to developing capability in both the formal and the 'hidden' curriculum – defined by Kelly (2004) as outcomes which are, 'not in themselves overtly included in the planning or even the consciousness of those responsible for the school arrangements' (p. 5).

There is the possibility that entering into the liminal, flow state described in this paper as a result of more frequent music-making in out-of-school locations could facilitate other increased abilities and the pupil's evaluations provide a deeper understanding of how they can engage with, and are empowered by, music. It is our conclusion that further research is needed to continue to explore this potential and to ensure that the full benefits of music-making outdoors are captured both to develop music curricula and, more importantly, enhance the music-making of young children.

Conflict of interest

The authors declare that there is no conflict of interest.

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[AQ5]

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