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**What barriers prevent teachers from incorporating outdoor learning into their
everyday teaching practice?**

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Submitted in accordance with the requirements for the degree of BA (Hons) Primary
Education (5-11) with QTS

York St John University School of Education, Language and Psychology

May 2024

The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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Contents

Introduction	4
Literature Review	6
Research Methods and Data Analysis	14
Findings and Discussion	18
References	27
Appendices	39

Introduction

This research project aims to understand the barriers that teachers face when incorporating outdoor learning into their everyday teaching practice. As defined by Jucker and Von Au (2022), outdoor learning encompasses any teaching or learning practice that takes place outdoors. Although it is an approach to learning outside the classroom (Beames, Higgins and Nicol, 2011; Grigg and Lewis, 2016; Waite and Pratt, 2017), there is an emphasis on the use of natural environments to enhance curriculum-based learning (Waite, Bølling and Bentsen, 2016). Changing the environment provides children with authentic and real-life experiences that widens their learning beyond the constraints of the classroom (Davis, Rea and Waite, 2006). As stated in the LOTC Manifesto (DfES, 2006), teachers should not just consider what children learn, but also where and how they learn.

Learning in natural environments can profoundly impact children's academic, cognitive, emotional, physical and social development (Atencio et al., 2015; Waite et al., 2016; Coates and Pimlott-Wilson, 2019). There are also strong associations evidenced in research that outdoor learning can facilitate children's connection with nature which further enhances their learning outcomes and pro-environmental behaviours (Dillon and Lovell, 2022). Therefore, it would be assumed that outdoor learning was integral to every school's ethos and curriculum. However, a report by Natural England found that only 33% of children have daily outdoor learning and 34% engage with nature at school daily (Natural England, 2023). Consequently, many children are not missing out on the benefits of regular outdoor time for their development (Largo-Wight, Guardino and Hall, 2020).

This case study aims to understand why outdoor learning is not delivered regularly in schools, focussing on what barriers teachers experience in their practice. Firstly, a questionnaire was distributed to teachers outside of the study school to gain insight into their outdoor learning experiences. Then, semi-structured interviews were conducted during the school placement to further explore what may be influencing teachers' outdoor learning practice. An additional interview was carried out with the headteacher to understand their impact on teachers' outdoor learning.

It is hoped that by exploring the current barriers teachers face in their delivery of outdoor learning, the challenges to integrating outdoor learning in schools can be better understood. The findings could support future research into practice-based solutions to help teachers overcome barriers and integrate outdoor learning into their practice (van Dijk-Wesselius et al., 2020).

Literature Review

This literature draws upon existing research in the field of outdoor learning. It discusses the benefits of outdoor learning and considers the barriers that may prevent teachers from delivering regularly.

Benefits of Outdoor Learning

Although this study focuses on barriers, it is important to recognise the value of outdoor learning and why it should be integral to teaching practice.

It is frequently debated in research whether outdoor learning is educationally valuable to children. However, Tekakpinar and Tezer (2020) found that children's academic attainment was improved when learning was taken outdoors. As discussed by Barford (2022), teachers use different approaches to teaching and learning when outdoors, thus better meeting the needs of all learners (Dean and Gilbert, 2024). There is a specific focus on developing higher-order thinking skills such as problem-solving, analysis and reasoning (Jucker and Von Au, 2022) rather than knowledge acquisition as stated by Quay (2016). As expressed by James and Williams (2017), this can be highly beneficial for children who struggle to access learning in that format. Research by Quibell, Charlton and Law (2017) found that children made greater progress in mathematics, reading and writing when learning was based outdoors compared to indoors. Similarly, Otte et al. (2019) recognised that taking learning outdoors can enhance mathematical understanding. Although Fägerstam (2013) reported the same academic progress for children learning indoors and outdoors, the study highlighted that learning outdoors helped enhance children's understanding when indoors too. It is suggested that academic progress is enhanced when learning outdoors because children are more enthusiastic and engaged (James and Williams, 2017; Waite and Aronsson, 2022), which is particularly beneficial for children with special educational needs who may struggle to concentrate in the classroom environment (Becker et al., 2017; Marchant et al., 2019). However, Waite et al. (2016) note that it is through a holistic approach to learning that children benefit academically.

It is widely discussed in research that the natural environment provides children with authentic experiences that cannot be facilitated in the classroom (Grigg and Lewis, 2016; Waite and Pratt, 2017; James and Williams, 2017; Passy et al., 2019). As expressed Thornburn and McAllister (2013) and further evidenced in MacQuarrie (2018) and Mygind, Bølling and Barford (2019), outdoor learning aims to build on children's prior knowledge and experiences which facilitates meaningful and memorable connections. This deepens their conceptual understanding (Thornburn and Marshall, 2014) and strengthens their relationship with the world around them which is key to their development (Jucker and Von Au, 2022). Therefore, it could be argued that outdoor learning is underpinned by constructivist approaches as promoted by John Dewey (Quay, 2013; Nicol, 2014).

A recent NHS survey found that an estimated 1 in 5 children had a probable mental health disorder in 2023 (Newlove-Delgado et al., 2023). This has increased exponentially since the COVID-19 pandemic and research has begun seeking interventions to support wellbeing (Waite and Aronsson, 2022). Learning outdoors can improve wellbeing (Bølling et al., 2018; Bølling et al., 2019; Marsh and Blackwell, 2023) and mood (Harvey et al., 2020; Jucker and Von Au, 2022). The natural environment alone can promote health and wellbeing (Defra, 2018) and regular contact with nature can buffer declines in children's mental health (Flouri, Midouhas and Joshi, 2014). As reported by Natural England (2023) report, 88% of children feel happy in nature, further arguing the need for regular time in nature during the school day. There is also evidence to suggest that regular outdoor learning can support children during difficult times such as the transition between primary and secondary school (Slee and Allan, 2019). It is important to note that the most profound benefits on wellbeing are when children are connected to the natural environment around them, as argued by Martin et al. (2020) and Pirchio et al. (2021).

There is a growing concern amongst researchers that children are spending less time in nature (Largo-Wight, Guardino and Hall, 2020). This may be due to limited access to natural spaces (Cheng and Monroe, 2012), preference for the indoors (Larkin, 2011; Almers et al., 2020)

technological advances, parental concerns about risk and increased pressure at school (Austin, 2022). Lack of time in nature means children are becoming disconnected from nature (Dillon, 2010; Beames, Higgins and Nicol, 2011; Barthel et al., 2018), often referred to as 'nature deficit disorder' (Louv, 2005 as cited in Larkin, 2011; Blatt and Patrick, 2014). It is therefore paramount that outdoor learning supports children's engagement with nature (Waite et al., 2016) which can foster their nature connectedness, as stated by Bates (2020 and Harris (2021). This is particularly crucial following COVID-19 which restricted many children's access to nature (Mackenzie and Goodnow, 2021) and emphasised the value of regular contact with the natural environment (Dillon and Lovell, 2022). It can therefore be suggested that teaching outdoors regularly can support children to engage with nature and develop meaningful connections with the environment.

When children are connected to nature, they become more concerned about the environment (Otto and Pensini, 2017). Natural England (2023) reported that 84% of children are concerned about the environment and 87% would like to do more to protect it. Outdoor learning can improve awareness of global issues (Stevenson et al., 2014; Gray and Birrell, 2015) and encourage sustainable living (Redclift and Springer, 2015; Humberstone, Prince and Henderson, 2016). By integrating environmental education into outdoor practices, children become more empowered to talk Dean and Gilbert, 2024) and take responsibility for their impact on the environment (Grigg and Lewis, 2016). However, Chawla (2019) addresses that some children struggle with things they cannot control; especially those with additional needs (Berger, 2008). As suggested by Bento and Dias (2017) and Jucker and Von Au (2022), outdoor learning can equip children with skills to help prepare them for future challenges and experiences.

Research is beginning to explore the relationship between nature connectedness, pro-environmental behaviours and wellbeing when children participate in outdoor learning. Although most studies focus on adults, more are beginning to focus on children (Chawla, 2019). As evident in Richardson et al. (2016), greater nature connectedness resulted in improved wellbeing and pro-environmental

behaviours. Martin et al. (2020) and Pirchio et al. (2021) reported similar results that nature connectedness predicted wellbeing and pro-environmental behaviours. This research suggests that schools prioritise outdoor learning that facilitates connections with the environment.

Barriers to Outdoor Learning

Although there are many benefits to outdoor learning, research also highlights the barriers that may prevent teachers from incorporating it into their practice (van Dijk-Wesselius et al., 2020).

Curriculum Barriers

Unlike other countries, outdoor learning is not integrated into current educational policy in England (Passy et al., 2019). To date, the only policy document concerning outdoor learning is the Learning Outside the Classroom Manifesto published in 2006 (DfES, 2006). It could be argued that overemphasis on the National Curriculum (DfE, 2013) and underrepresentation of outdoor learning means it is not considered an integral part of the curriculum (Waite, 2010). Supporting this, Austin (2022) and Jucker and Von Au (2022) discuss how outdoor learning is often perceived as an add-on to curriculum learning. van-Dijk-Wesselius et al. (2020) argue that the current curriculum does not support outdoor learning, which makes it harder for teachers to integrate themselves. This may be due to pressure to cover the breadth of knowledge outlined in the National Curriculum (Marchant et al. 2019) and to prepare for standardised assessments (Largo-Wight et al., 2018). This is particularly difficult when the curriculum is as full and crowded as it currently is (Patchen et al., 2024). As outlined by Quay (2016), this can make it harder for teachers to find the time to integrate outdoor learning, which is further evident in research by Barford and Bentsen (2018) and Tuuling, Öun and Ugaste, (2019). Nevertheless, this is also the case in countries where outdoor learning is integrated into the curriculum and compulsory (Fägerstam, 2014; Mygind, Bølling and Barford, 2019). However, Waite

et al. (2016) argue that integration can contribute to reducing barriers associated with time and workload.

As aforementioned, there is a debate in literature around the educational value of outdoor learning with some teachers not perceiving it to support academic progress Waite and Aronsson (2022). Some teachers believe it does not follow the national curriculum (Dring, Lee and Rideout, 2020), while others simply view it as play (Waite, 2010; Dowdell, Gray and Malone, 2011) and a distraction from the key learning (Quay, 2016; James and Williams, 2017). As argued by MacQuarrie (2018), outdoor learning should be curriculum-based and enhance learning rather than replacing the national curriculum requirements (Edwards-Jones, Waite and Passy 2016; Marchant et al., 2019). Integrating outdoor learning into the curriculum as promoted by MacQuarrie, Nugent and Warden (2015) means teachers can adapt their teaching approaches (Thornburn and Marshall, 2014) without compromising the learning objectives (MacQuarrie, Nugent and Warden, 2015). As a result, the academic value is increased and children's learning potential widened (Nicol, 2014).

Despite teachers being responsible for integration of outdoor learning, leadership can also have an impact (NCTL, 2012). Unsupportive leadership can negatively influence outdoor learning (Dring, Lee and Rideout, 2020; Patchen et al., 2024), whereas Oberle et al. (2021) suggest that supportive leadership can help communicate the benefits of outdoor learning to others including parents (Boileau and Dabaja, 2020; Dean and Gilbert, 2024). This suggests a collaborative approach is most effective for curriculum integration.

Environment

As reported by Mart and Waite (2021), many schools do not have natural spaces that can restrict outdoor learning opportunities (Oberle et al., 2021). Some schools have available space on-site but limited funding means these have not been maintained and therefore are not safe to use (Edwards-Jones, Waite and Passy, 2016). Limited funding also means schools without natural spaces cannot

provide off-site outdoor learning, as Marchant et al. (2019) suggest. As the natural environment underpins all outdoor learning practices (NCTL, 2012), schools without adequate space will not be able to provide valuable learning opportunities outside of the classroom which can be a significant barrier.

Another environmental barrier frequently reported is weather (Barford and Bentsen, 2018; van Dijk-Wesselius et al., 2020) which Austin (2022) outlines can reduce accessibility to natural spaces. Although there are educational benefits to children experiencing different weathers (Dowdell, Gray and Malone, 2011), schools may not have appropriate clothing as a result of restricted budgets (McClintic and Petty, 2015; Tuuling, Öun and Ugaste, 2019). Denmark provides all children clothing to access the environment in all weathers (Mygind, Bølling and Barford, 2019), whereas children in England do not have the same opportunities (Edwards-Jones, Waite and Passy, 2016; Marchant et al., 2019).

Often weather is reported alongside teachers' concerns regarding risk during outdoor learning (Grigg and Lewis, 2016; Berg et al., 2021; Montgomery et al., 2022). Although managing risk should remain a high priority for teachers (Austin, 2022), concerns should not restrict children's opportunities to experience the natural environment. Research by Little, Sandseter and Wyver (2012) and Little (2015) outline that children should have unrestricted access to nature to enhance their learning and development. Clear boundaries and rules when outdoors can support teachers in managing risk without children missing out on valuable learning, as outlined by McCain and Vandermaas-Peeler (2016) and Whincup, Allin and Greer (2023). Therefore, Connolly and Haughton (2015) advocate that teachers remain vigilant about safety and risk management whilst acknowledging the benefits of children encountering risk in their learning.

Confidence

A study by Waite (2020) reported that 3 out of 4 teachers did not consider themselves confident in delivering learning outdoors, with 2 out of 3 schools using external providers to alleviate teacher anxiety. Similar concerns about teacher confidence are reported in research by Connelly and Haughton (2015) and Mygind, Bølling and Barford (2019). Various factors can impact teachers' confidence and their outdoor learning practice. In some cases, prior knowledge and experiences influence confidence levels (Waite, 2010; Dring, Lee and Rideout, 2020) and in other cases, confidence is a result of personal attitudes toward outdoor learning (Edwards-Jones, Waite and Passy, 2016; Austin, 2022). It is also suggested by Oberle et al. (2021) that teachers' relationship with nature can determine whether they feel comfortable teaching outside.

Motivation and enthusiasm can also influence whether teachers choose to take learning outdoors (NCTL, 2012). Research suggests that teachers with background knowledge and experience in outdoor learning are generally more motivated (Patchen et al., 2024) and inspired to find ways of incorporating it into their everyday practice (van-Dijk-Wesselius et al., 2020). As suggested by Harris (2017) and Hill (2018), this can improve the quality of their outdoor learning provision. However, some teachers lack motivation due to not seeing outdoor learning as beneficial to children's learning or development (McClintic and Petty, 2015). Other teachers report that limited training opportunities influence their motivation (MacQuarrie, 2018). As argued by Dillon and Dickie (2012), outdoor learning can help motivate teachers by allowing them to be more creative and innovative with their pedagogical approaches. This emphasises the importance of empowering teachers to take their learning outdoors.

According to a report by Waite et al. (2016), CPD is central to the delivery of learning in natural environments by developing teachers' confidence, knowledge, understanding and thus their practice. However, there is a distinct narrative in the literature that teachers do not have sufficient training opportunities to improve their outdoor learning practice (MacQuarrie, 2018; Dring, Lee and Rideout, 2020; Oberle et al., 2021). This is not only evident in England but also in other countries where

outdoor learning is outlined in educational policy (Passy et al., 2019). Research by Lloyd, Truong and Gray (2018) also reports that teacher education does not support teachers in their future outdoor learning practice with distinct gaps in ITT programmes, as supported by Waite (2020). As a result, Austin (2022) explains that many early career teachers (ECT) lack confidence and interest in outdoor learning due to the new pressures of teaching. Therefore, Barford and Bentsen (2018) argue the need for more training for both in-service and pre-service teachers to fully support teachers' outdoor learning delivery.

Research Methods and Data Analysis

A case study approach was deemed most appropriate for this small-scale research project (Nair, Gibbert and Hoorani, 2023) due to the small sample size and timescale. Case studies enable the researcher to explore the experiences and beliefs of individuals (Grant and Lincoln, 2021). Unlike large-scale research, this allows for a deeper understanding and meaning of the experiences (O’Leary, 2021). Through interpretation of the rich and detailed data, the researcher can gain a comprehensive view of the phenomenon (O’Leary, 2021; Thomas, 2022) in a real-life context (Yin, 2009). Relationships between factors can then be explored (Blatter and Haverland, 2012; Gibson and Brown, 2009) and the findings related to the context of existing research and literature (Tight, 2017).

It is important to note that case studies do not come without their limitations. The school sample was chosen through convenience sampling however this was small, which may impact the generalisability of the findings (Candappa, 2017; Tight, 2017; O’Leary, 2021). A purposeful sample of teachers was chosen outside of the research school to gather more viewpoints and improve the representativity and generalisability of the findings.

Semi-structured interviews and questionnaires were used for data collection. A mixed-methods approach was used to improve the credibility of research claims and increase the validity and reliability of the findings (Cara, 2017; Tight, 2017; O’Leary, 2021). Triangulation of data through a mixed-methods approach (Bryman, 2008; Harding, 2018) aims to overcome the potential bias from individual responses which can further impact reliability and validity.

To improve the validity and reliability of the research, a pilot study was conducted following gatekeeper consent from the headteacher. This aimed to improve the quality of the research methods and to assess the feasibility (Malmqvist et al., 2019). The results were then used to develop the final data collection methods.

First, an online questionnaire was administered via social media to teachers. This aimed to gather insight into their experiences and views of outdoor learning. Both quantitative and qualitative responses were collected for depth and detail (Thomas, 2022). Open-ended questions were used to allow respondents the freedom to express their views and experiences through a narrative which added further detail (Harding, 2018). Online questionnaires often result in lower response rates than those distributed in person (Bell and Waters, 2014). However, online distribution enabled the researcher to collect data from respondents outside of the research school to improve representativity and generalisability. The questionnaire was created using the Qualtrics XM survey tool and received 71 responses. Before analysis, 27 of these responses were identified as containing no data which may have resulted from a technical error. Therefore, these were removed before analysis resulting in a final data set of 44 responses.

The findings from the questionnaire responses were then developed into semi-structured interview questions which were conducted with all 4 teachers and the headteacher. Open-ended questions were used with some follow-up questions if deemed necessary. Interviews were used to allow respondents to express their views and experiences for a prolonged period (Hennick, Hutter and Bailey, 2011). More meaning could then be attached to the experiences resulting in a deeper understanding of their beliefs and perceptions. Interviews were conducted several weeks into the placement, as Thomas (2022) emphasises the importance of establishing relationships and 'rapport' with the interviewees beforehand. These were face-to-face to enable the researcher to observe any non-verbal cues that may indicate how the interviewee is feeling about the research topic (Harding, 2018; Thomas, 2022). All interviews were anonymously audio recorded and transcribed by the researcher.

To overcome the potential bias that may arise due to the established relationships and interactions between the interviewer and interviewee (Bell and Waters, 2014), the researcher remained objective

throughout the interview without compromising the comfort of the interview environment. Moreover, reflexivity throughout the research aimed to reduce any impact on the results (Fontana and Frey, 2008). To maintain integrity, the researcher was clear about the purpose and conduct of the research to overcome potential limitations.

Thematic analysis was conducted on both interview transcripts and open-ended questionnaire responses upon completion of the data collection process. Xu and Zammit (2020) argue thematic analysis in educational research provides insight into classroom practice through both a theoretical lens and the personal experiences of the participants. Thematic analysis was appropriate for this research as it helps interpret thick and descriptive qualitative data (Naeem et al., 2023). Data was coded and screened for emerging themes (Flick, 2022). These themes were then related to the initial research questions to be discussed further (Elliott, 2018).

To overcome potential researcher bias (Galadas, 2017), the researcher remained objective throughout the data collection and analysis process to ensure the accuracy of the data remained high and was not distorted through the interpretation stages (Harding, 2018).

Researchers are responsible for ethical awareness and potential impacts on research credibility (Walliman, 2020). Ethical clearance was obtained from York St John University and research was conducted in line with BERA (2024) guidelines. All participants in the research were given details about consent and were asked to agree to their participation in line with the consent terms and conditions. Anonymity was maintained throughout the research process and confidentiality of responses was guaranteed. All participants were aware they could withdraw from the research at any point.

Findings and Discussion

Theme 1: Curriculum

Teachers discussed the different ways that schools integrate outdoor learning into the curriculum. 40.9% of questionnaire respondents commented that their school bases its curriculum around outdoor learning. A further 18.3% responded that outdoor learning was part of their school's ethos. This strengthens research by Edwards-Jones, Waite and Passy (2016) and MacQuarrie (2018) that curriculum integration can create a whole-school approach to outdoor learning.

This was evident in the headteacher interview as they outlined how it was their priority to build outdoor learning into the curriculum. However, they expressed that teachers were responsible for finding ways of integrating into their practice. All teachers spoke about using outdoor learning in their practice with a heavy focus on science and occasionally mathematics. One teacher commented that science was the "easiest" to take outdoors and link with the curriculum. This supports Larkin (2011) who discusses how the natural environment underpins scientific concepts and outdoor learning can strengthen children's subject-specific knowledge and allow them to see the real-life applications of science. However, Fägerstam (2013) identified science as the subject least taught outdoors with teachers not considering it to support children's scientific knowledge and conceptual understanding as much as indoors. Concerning the present study, teachers considered writing the most challenging to take outdoors and find ways of using the natural environment to enhance learning. There was a consensus amongst the teachers that outdoor learning should enhance national curriculum learning for it to be deemed valuable. Although MacQuarrie (2018) and Waite and Aronsson (2022) argue that outdoor learning should link to national curriculum objectives, Thornburn and Marshall (2014) explain that the value of outdoor learning is that it aims to widen the rigidity of the national curriculum. The findings of the interviews suggest that teachers are challenged when trying to balance meeting the

curriculum demands whilst still providing meaningful outdoor learning experiences (Thornburn and McAllister, 2013).

The use of schemes became a key point of debate in the interviews by all 4 teachers. Although teachers were enthusiastic about taking learning outdoors, they felt that because it was not explicitly suggested in the schemes to do so, they remained indoors. The teachers expressed concern that taking schematic learning outdoors may be a distraction from the key learning and thus less effective, as explained by Quay (2016). In this situation, it became evident that prioritisation of schematic learning was preventing teachers from following their values within teaching and remaining restricted by policy. It could be argued that integration would support them to overcome this barrier.

It was acknowledged by the headteacher that “time constraints” made outdoor learning more challenging. This was supported by 3 out of 4 teacher interviews that identified outdoor learning required more “planning and preparation” and “organising” than teaching indoors. Consequently, limited time and increased workload made outdoor learning less of a priority (Patchen et al., 2024). It is emphasised by Bentsen (2018) and Tuuling, Õun and Ugaste (2019) that integrating in the curriculum can support teachers, in particular with the pressures of time and workload (Waite et al., 2016; Waite, 2020; Jucker and Von Au, 2022).

Although curriculum pressure was prevalent in interview responses, only 11.4% of questionnaire responses reported it as a barrier. Interestingly, of these responses, none reported that outdoor learning was integrated into their school’s curriculum. This suggests that many schools have developed strategies to deliver outdoor learning regularly which may be due to prioritisation of curriculum integration.

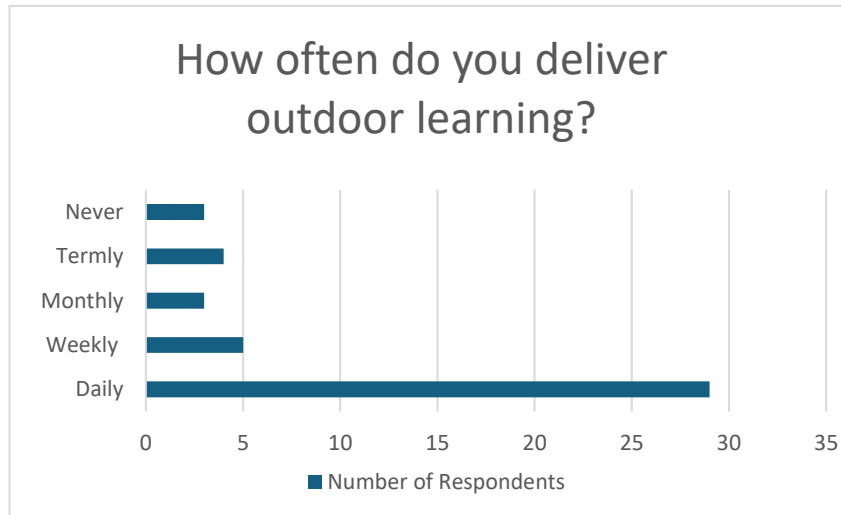


Figure 1: How often do you deliver outdoor learning?

The questionnaire data further illustrated a correlation between the frequency of outdoor learning and curriculum pressure as a barrier. Figure 1 shows that 65.6% of respondents deliver daily and 11.4% weekly. The same 11.4% of respondents who identified curriculum pressure as a barrier also reported that they deliver outdoor learning less than weekly. This evidence suggests that curriculum pressure due to lack of integration can prevent teachers from regular outdoor learning practice which supports research by Bølling et al. (2019). Therefore, schools need to prioritise integration to increase the potential frequency of outdoor learning.

Existing research suggests that provision for outdoor learning often reduces as children move through school (Waite, 2010) due to the narrowing of the curriculum to prepare for standard assessments (Mygind, Bølling and Barford, 2019). However, the interview data did not find any evidence to support this as all teachers across the 4 classes expressed similar challenges to implementation.

Theme 2: Environment

Another key theme that arose from the research data was the impact of the environment on outdoor learning.

54.5% of questionnaire respondents said that their school had a designated outdoor area. Previous studies suggest that a lack of adequate space within the school grounds can reduce outdoor learning opportunities (Oberle et al., 2021; Patchen et al., 2024). Only 4.5% of respondents identified space as a barrier and 15.9% expressed that improvements to the outdoor space would make it more accessible for outdoor learning.

In terms of outdoor provision, 54.5% of respondents had space for gardening and 56.8% said that their school had areas for natural materials including sand, water, grass, dirt, stones and/or a mud kitchen. Forest school provision was 22.7%, playgrounds 18.2% and woodland areas 29.5%. These findings suggest that many schools are beginning to turn their school grounds into rich outdoor learning areas, as advocated by Bates (2020).

Interview responses referred to the study school's "woodland area" as an "excellent" and "phenomenal" space for outdoor learning. The headteacher explained that other schools within the academy trust did not have the same outdoor space with many only having a field. This shows that outdoor provision can differ from school to school. Teachers further expressed their gratitude for the available space as many local schools were without such provision. The headteacher commented that the school's outdoor space was often a "draw for parents" when choosing a school as it made them "stand out" from the other schools.

However, teachers detailed how the outdoor space needed redeveloping. One teacher reflected on the deterioration of the outdoor space during their 20 years of teaching at the school. They stated that the school used to have a woodland, pond area, meadow, hedgerows and various microhabitats

that have gradually depleted over time. In particular, all teachers and the headteacher commented that the pond was “unsafe” and “unmaintained” meaning it could not currently be used for outdoor learning. Another teacher commented that they had not been able to use the pond area previously because it had not been accessible to a child in a wheelchair, which aligns with research by Patchen et al. (2024). It was evident from the interviews that all teachers were eager to use the pond area for pond-dipping in science following a redevelopment. As illustrated here, outdoor spaces cannot be used to their full potential if they are not maintained properly.

Funding was identified by the headteacher as the main barrier preventing the redevelopment of the outdoor area, which supports Edwards-Jones, Waite and Passy (2016) and Marchant et al. (2019). As the school does not have a substantial budget for outdoor learning, it relies heavily on donations from local companies and organisations. They also discussed how the school currently does not have a caretaker, there is no one to regularly maintain the area. As previously discussed, community involvement and support from volunteers can help develop outdoor spaces, which could support this school improve its provision (NCTL, 2012).

Neither the interview nor questionnaire responses reported the use of off-site outdoor learning spaces despite research suggesting that many schools choose this (Edwards-Jones, Waite and Passy, 2016; Austin, 2022). It could be interpreted that schools are prioritising the development of their on-site provision rather than choosing alternative settings.

The most common barrier reported in the questionnaire data was weather with 31.8% of respondents stating that this impacted their outdoor learning practice. Although many respondents discussed that their school provided appropriate clothing for outdoor learning in all weathers as evidenced by Mygind, Bølling and Barford (2019), if the weather conditions were deemed “extreme” and potentially “risky” or “unsafe” then outdoor learning was not permitted. 3 out of 4 teachers interviewed also identified weather as a barrier to their practice. It was discussed that some resources had been

damaged in certain weather conditions and lack of funding meant they had not been replaced, which builds on research by McClintic and Petty (2015) and Tuuling, Öun and Ugaste (2019). Moreover, one teacher explained that there were not enough “sheltered” areas for outdoor learning. Consistent with existing literature, weather remains a significant barrier to teachers’ outdoor learning practice (Barford and Bentsen, 2018; van Dijk-Wesselius et al., 2020).

Interview responses illustrated that outdoor learning in the study school was season-dependent with more during the summer months and less during winter. Teachers discussed how the outdoor space was less accessible in winter and the lack of resources and appropriate clothing made delivery during winter more challenging. It is argued by Bilton (2020) that appropriate clothing can make outdoor learning more accessible in all seasons and weather conditions.

Theme 3: Staff Confidence

Questionnaire respondents were asked to rate their confidence in delivering outdoor learning. 34.1% of respondents rated their confidence a 10, 15.9% rated it a 9 and 18.2% rated it an 8. Interestingly, only 9.1% rate their confidence below 5 despite research identifying teachers’ confidence as a significant barrier (Fägerstam, 2013; Waite, 2020). The data also outlined a relationship between the frequency of outdoor learning and confidence levels. 30 respondents reported their confidence as higher than 8 and 96.7% taught outdoors daily or weekly. It is not clear from these findings whether teachers’ confidence levels determined their frequency of outdoor learning, or whether teachers who felt more confident implemented outdoor learning more regularly into their teaching practice. It is suggested by Dring, Lee and Rideout (2020) that teachers who have more prior knowledge and experience in teaching outdoors have greater confidence in their delivery of outdoor learning. However, during the interviews, 3 teachers reported they teach outdoors monthly and the other teacher weekly. All 4 teachers considered themselves confident in delivering outdoor learning suggesting that other factors may be responsible for teachers’ confidence. Austin (2022) suggests

that teachers' attitudes toward outdoor learning can influence their confidence which is evident from the interview responses. All teachers expressed enthusiasm and motivation to take learning outdoors more often and find ways of overcoming the barriers currently preventing them from doing so, despite research suggesting teachers lack enthusiasm towards outdoor learning (Waite, 2010; McClintic and Petty, 2015; MacQuarrie, 2018). It is also suggested that more confident teachers are more enthusiastic about incorporating outdoor learning into their practice Marchant et al., 2019; Patchen et al., 2024), thus emphasising the importance of improving teacher confidence.

When asked about additional support, 3 out of 4 teachers expressed that staff training would provide more ideas on how to take learning outdoors and improve their confidence, as addressed by (Waite, 2020). Staff training was prevalent in the interview data yet only 11.4% of questionnaire respondents felt that additional training would support their delivery of outdoor learning. This corresponded with the findings that 81.8% of respondents had received at least one form of training during their teaching career. 38.6% had received training specifically from outdoor learning agencies such as Froebel Trust or Learning through Landscapes and 38.6% had received Forest School training. A further 15.9% had participated in a specific training course either in-person or online and 15.9% had received in-house training. The interview and questionnaire findings highlight that despite the evident benefits of training (NCTL, 2012; Marchant et al., 2019), there may still be barriers preventing schools from providing these opportunities to their staff.

Notably, of the respondents who had received training, only 5.6% stated that this was during teacher training. As identified in previous research, there is a gap in outdoor learning training during ITT programmes (Dillon, 2010; NCTL, 2012; Waite, 2020). Only the early career teacher interviewed discussed outdoor learning during their time at university and expressed how this improved their confidence and enthusiasm for outdoor learning. However, the same teacher explained that their interest in outdoor learning had reduced since qualifying due to the “demands and pressures” of teaching, as evident in Austin (2022). The current study suggests advances in outdoor learning

during teacher training strengthening the argument for the importance of training for both pre-service and in-service teachers (Barford and Bentsen, 2018).

The headteacher acknowledged the benefits of staff training for raising teachers' confidence and improving their outdoor learning delivery, which Patchen et al. (2024) argue should be the responsibility of the headteacher and school leadership. However, the headteacher outlined that the teachers were responsible for finding their own training as the headteacher found it difficult to find courses that the teachers would be interested in which differed from the existing research. It is important to note that the headteacher did recognise that the teachers were enthusiastic and understood the expectations regarding outdoor learning which meant they often sought training and development opportunities. Nonetheless, they spoke about previous schools they had worked in with high proportions of staff reluctant to participate or adopt outdoor learning practices. It is suggested by Edwards-Jones, Waite and Passy (2016) that it is through collaboration of teachers and leadership that teachers' confidence and motivation are most impacted.

Conclusion

This research project aimed to extend the current understanding of the barriers that prevent teachers from integrating outdoor learning into their everyday practice.

Results from the questionnaire suggest many schools have integrated outdoor learning into their school curriculum and ethos. However, the interviews showed that other schools still face challenges around curriculum pressure, lack of time and workload. As there is still no updated policy to guide teachers in their outdoor learning practice, headteachers and leadership teams must prioritise outdoor learning within schools and encourage teachers to take the step outside.

Although the questionnaire data suggested many schools have adequate space for outdoor learning, the interviews outlined how these may not be accessible or safe to use due to not being maintained. The headteacher also recognised that a lack of funding was largely responsible for the deterioration of outdoor spaces. Therefore, schools are often reliant on external companies and donations which can be hard for schools to obtain. The weather was recognised as a significant environmental barrier preventing teachers from delivering outdoor learning in both questionnaire and interview responses. Lack of appropriate clothing means children cannot access outdoor spaces in certain weather conditions however the main concerns were around risk due to extreme weather. Therefore, additional funding could be used for resources and redevelopment projects to ensure children can safely experience the natural environment regularly.

Unlike existing research, teachers in the present study considered themselves confident in teaching outdoors. The questionnaire data also identified a link between the frequency of outdoor learning and teacher confidence although this relationship needs further exploration to understand the relationship. Consistent with research, this study found that additional training opportunities would

improve teachers' confidence and provide ideas for taking curriculum learning outdoors. It is therefore suggested that these are prioritised to ensure high-quality outdoor learning for children.

This study was conducted in a small village school with only 4 teachers therefore the findings should not be considered representative of wider teacher views and experiences. The questionnaire aimed to increase representativeness beyond one school, but this study did not collect any data from city-based or urban schools which may have evidenced different teacher perspectives. Nevertheless, the research does prove that outdoor learning is context-dependent as some schools have excellent outdoor learning provisions which include supporting the teachers in their practice. However, some schools are still experiencing the challenges of integrating outdoor learning which creates barriers for teachers.

Overall, this research suggests that there are still barriers preventing some teachers from delivering outdoor learning regularly. However, the findings indicate that many teachers do not experience challenges in their practice suggesting that schools are beginning to take the steps to prioritise and integrate more into everyday practice. Therefore, it is suggested that schools build outdoor learning into the school ethos to inform teachers about the educational and holistic value of outdoor learning. Additionally, this can promote the development of outdoor spaces and provide opportunities for professional development. Further research should focus on the strategies to support teachers overcome the barriers so that every child has the opportunity to experience the benefits of learning outdoors.

Word Count: 6322

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Appendices

Teacher Questionnaire

1. How does your school promote outdoor learning?
2. What provision does your school have for outdoor learning?
3. Do you think this is adequate?

Yes

No

(Please explain your answer further)

4. What training have you received to support your delivery of outdoor learning?
5. How confident do you feel delivering outdoor learning? (scale 0-10)
6. Why have you rated your confidence this level?
7. How often do you deliver outdoor learning?

Daily

Weekly

Monthly

Termly

Never

8. Are there any factors that influence the frequency of your outdoor learning?
9. How often would you like to deliver outdoor learning and why?

Daily

Weekly

Monthly

Termly

Never

10. Are there any factors that prevent you from delivering outdoor learning?
11. What factors would enable you to deliver more outdoor learning?

Teacher Interview

1. What do you understand by the term 'outdoor learning'?
2. How does the school promote outdoor learning?
3. Do you think the provision for outdoor learning is adequate? Why?
4. How do you use outdoor learning in your teaching practice? Can you give examples?
5. What is the impact of your outdoor learning on children's learning and development?
6. Do you believe outdoor learning has the same impact as indoor learning? Why?
7. How confident do you feel in delivering outdoor learning? Why?
8. Do you favour outdoor learning or indoor learning more in your teaching? Why?
9. How often do you deliver outdoor learning?
10. Would you like to deliver more outdoor learning? Why?
11. What barriers prevent you from delivering more outdoor learning?
12. What factors contribute to these barriers?
13. How could you be supported to overcome these barriers?
14. Overall, how important is outdoor learning in your teaching practice?

Headteacher Interview

1. What do you understand by the term 'outdoor learning'?
2. What do you feel are the benefits of outdoor learning on children's learning and development?
3. As a Headteacher, how do you promote outdoor learning in your school?
4. As your school is part of an academy trust, does the trust make decisions regarding outdoor learning or is this responsibility left to you as Headteacher?
5. Is there a whole-school approach or are individual teachers responsible for delivering outdoor learning in their classes?
6. What provision is available to teachers to support outdoor learning?
7. Are there any improvements that you feel could be made regarding outdoor learning?
8. In terms of funding, is outdoor learning accounted for in the school budget or are donations/sponsorship relied upon?
9. Do you feel this is sufficient funding for outdoor learning?
10. What CPD / training is available for teachers, to support their delivery of outdoor learning?
11. Do you believe this support is sufficient or could it be improved?
12. As a Headteacher, do you face any barriers when promoting and implementing outdoor learning in your school?
13. How could you be supported to overcome these barriers?
14. Overall, how important is outdoor learning in your school?