

What are the potential barriers for KS3 children accessing outdoor education within the school timetable and curriculum in the UK?

Joshua Bayliss

2103098

BA HONS Outdoor Adventure Education
Level 6
2024

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Abstract:

This extended literature review dissertation delves into the examination and analysis of barriers obstructing Key-Stage 3 (KS3) children, aged 11-14 years, from engaging in outdoor education (OE) within the United Kingdom (UK). Through an exploration of existing literature, this study identifies various factors impeding access to OE experiences for this demographic. By synthesising findings from diverse scholarly sources, the dissertation illuminates challenges such as socioeconomic disparities, logistical constraints, and curricular limitations that restrict KS3 children's participation in outdoor learning activities. Furthermore, this research endeavours to propose a range of recommendations aimed at mitigating these barriers and fostering a more inclusive and accessible landscape for OE within educational environments.

Introduction & Methodology:

This extended literature review dissertation, aims to investigate and analyse the potential barriers that hinder Key-Stage 3 (KS3) children (11-14 years old) from accessing outdoor education (OE) in the United Kingdom (UK).

The aims of this dissertation are:

- To identify the benefits of OE for KS3 pupils.
- To identify the barriers that exist to participation in KS3.
- To examine the current provision of OE in schools at KS3.
- To make recommendations to improve access to OE for KS3 aged children.

Subsequently, this dissertation will propose several recommendations aimed at addressing and overcoming these barriers to ensure the continued provision and enhancement of OE opportunities within educational settings. The significance of OE, for young people, lies in its ability to develop cognitive skills, enhance physical well-being, and promote social development amongst other secondary school children. It is widely acknowledged that exposure to the natural environment positively influences academic performance, physical health, and the development of crucial life skills. (Pretty, Et al., 2009) However, several factors may present as barriers that prevent secondary aged children from accessing OE in the UK, ranging from financial constraints to disability and geographical location. This research aims to identify these barriers, understand them and propose recommendations for overcoming them.

This is an important issue that is relevant to young people and their health and wellbeing. As playing and learning outdoors has been proven to improve young people's mental and physical health (Orchard, 2017). In addition, with an "increase in mental health issues since the COVID-19 pandemic" (Kumar and Nayar, 2021), it is important to target and combat these issues as soon as possible to promote children's mental health and well-being.

It is important to focus ourselves on the promotion of participation in OE within future generations. This is because OE plays a role towards the development of future generations by fostering holistic learning opportunities. As well as instilling a deeper connection to the natural environment, research conducted since 2000 consistently highlights the numerous benefits of OE, including improved physical health, enhanced cognitive abilities, and increased social skills. Exposure to nature has been linked to reduced stress levels and increased attention spans in children (Wells, 2019). To build on this, "outdoor learning experiences contribute to the development of environmental stewardship, promoting a sense of responsibility towards the planet" (Hart, 2016). As modern societies become increasingly urbanised, the importance of reconnecting with nature is emphasised to counteract the growing disconnection between individuals and the natural world (Chawla, 2015).

OE provides a unique platform for experiential learning, encouraging curiosity, creativity, and problem-solving skills crucial for the challenges of the future (Rickinson et al., 2015). Therefore integrating OE into the curriculum and school timetable is essential for ensuring young people become well-rounded, environmentally conscious individuals who are capable of addressing and combating the complex issues facing the world.

Prior to exploring the potential barriers for KS3 children accessing OE, this project will expand upon the benefits associated with OE, giving reason to the argument that will later be advanced in combating the highlighted barriers. OE for children provides a wealth of academic, social, and psychological advantages. Academically, it is proven that outdoor experiences enhance students' cognitive abilities and academic performance. Analysis taken from studies such as Rickinson (et al. 2015) highlight the positive impact of outdoor learning on academic achievement, showing that learners engaged in OE demonstrate improved understanding of academic concepts and have a heightened motivation to learn.

In recent years, there has been a notable shift in educational philosophy, whereby “teachers no longer see OE as a subject in its own right but within the physical education curriculum” (Prince, 2019). In this respect, OE is relatable to a number of subject areas within the curriculum, and can be explored in a range of ways, for example, by getting learners to recognise the benefits and learning opportunities of the natural world. Beames and Ross (2010) state that OE experiences not only provide a welcome break from traditional classroom settings but also offer unique opportunities for holistic development. These experiences develop a sense of environmental awareness, instil a love for nature, and promote physical health and well-being. Beyond the obvious physical advantages, OE also enhances critical thinking, problem-solving skills, and creativity (Coates and Pimlott-Wilson, 2018). To add to this, OE encourages teamwork, communication, and other interpersonal skills. As society becomes increasingly immersed in technology, integrating outdoor experiences into the curriculum is essential for creating a balanced education that prepares learners for the challenges of the future. (Lugg, 2007)

Additionally research suggests that there are social benefits for children who access OE, for example, OE fosters the development of crucial interpersonal skills and the collaborative nature of outdoor activities promotes teamwork, communication, and conflict resolution (Waite, 2012). Researchers like Wells and Lekies (2006) emphasise the social benefits of nature-based experiences, indicating that they contribute to the formation of positive social relationships and increased prosocial behaviour among children. Engaging in nature-based experiences has been consistently linked to improved behaviour, with research indicating that time spent in natural environments fosters greater levels of calmness, empathy, and psychological well-being, ultimately leading to more positive and socially responsible actions.

Psychologically, OE contributes to children's mental well-being. Numerous studies, including Chawla's (2015) work, demonstrate that exposure to natural environments reduces stress, anxiety, and symptoms of attention deficit disorders. This is due to the sights, sounds, and smells of nature offering a therapeutic escape from the hustle and bustle of daily life. The outdoors provide a conducive setting for reflection and mindfulness, promoting emotional regulation and overall psychological resilience (Pretty et al., 2005).

As mentioned earlier, this paper aims to examine current research and identify the benefits and the potential barriers for KS3 aged children accessing OE, throughout their time in education. As this dissertation is a piece of secondary research it will follow the methodology of an extended literature review. Regarding search engines, this project will utilise Google Scholar and the UWTSD Library. These platforms offer a diverse array of sources for reference, ensuring a comprehensive range of materials for the research. The research will be conducted from books, journals, policy documents and legislations, from 2000 onwards. This is to ensure its relevance by incorporating the most recent perspectives and information while offering a diverse array of views. When conducting this research the key terms that will be used are:

Outdoor Education, barriers, curriculum, secondary aged, KS3, access.

From reading current research, I expect the main barriers for children to be; financial constraints, geographical factors, disability and technology within the outdoors.

Financial limitations can hinder schools from providing their students with opportunities for OE. This is because schools with lower budgets may struggle to afford the associated costs of an OE experience for all students each year, including registration fees, buying or hiring equipment, and transportation. This economic barrier can contribute to disparities in access to outdoor activities among children from different socio-economic backgrounds (Larson, 2017).

Geographical factors also play a crucial role in limiting children's access to outdoor spaces. In urban areas, limited green spaces, playgrounds, and safe areas for outdoor play can restrict opportunities for physical literacy development. On the other hand, transportation challenges may arise in rural areas where outdoor facilities are more spread out, making it difficult for children and schools to access them without proper transportation infrastructure. (Christensen & Wilkinson, 2018).

Children with disabilities face unique challenges in accessing OE. The lack of inclusive facilities and adaptive equipment can create barriers for their participation in recreational programs and excursions. Additionally, social attitudes and misconceptions about disabilities may lead to social exclusion, further limiting opportunities for children with disabilities to engage in OE (Shields & Synnot, 2016).

Technology is becoming a large part of everyday life, therefore efforts need to be made to ensure that the focus of OE isn't pulled away from overuse of technology. Whilst it brings both positives and negatives to OE, technology within OE needs to be monitored to ensure online safety, session focus and correct use is all upheld.

Efforts to address these barriers should involve targeted interventions and policies that prioritise inclusivity, affordability, and the development of accessible outdoor spaces. Initiatives such as community-based programs, subsidies for low-income families, and the creation of universally designed outdoor spaces can contribute to breaking down these barriers and promoting equal access to outdoor activities for all children (Flatau et al., 2019).

Current picture of schools:

OE programs in secondary schools in the UK vary widely depending on the school, its location, resources, and curriculum priorities. OE has been recognised as an important aspect of the UK's educational system, with many schools incorporating it into their curriculum to varying extents.

Some schools have robust OE programs that include activities such as camping, hiking, orienteering, rock climbing, and water sports. These programs often aim to provide a range of benefits to the children's academic, social, and personal development. Research suggests that exposure to outdoor learning environments enhances students' academic performance, critical thinking skills, and motivation (Dillon et al., 2004). To support this, research by Nutsford, et al., (2019) states that participation in outdoor activities, not only improves physical fitness but also instil a sense of personal adventure, challenge and resilience.

Other schools incorporate OE through each and every subject, for instance, "in subjects like science, geography, and history, outdoor excursions to natural reserves, historical sites, and geographical landmarks provide students with firsthand experiences that complement classroom learning" (Department for Education, 2013). A study by Waite and Davis (2007) found that OE experiences positively impacted students' science learning outcomes by fostering curiosity, observation skills, and experimentation. This helps to emphasise how OE experiences can enhance and develop a child's learning and understanding on a topic.

Furthermore, OE in the UK promotes inclusivity and diversity by providing opportunities for all students to participate regardless of their backgrounds or abilities. Schools strive to create inclusive outdoor learning environments that accommodate students with disabilities and diverse learning needs. Adaptive equipment, specialised training for instructors, and modified activities ensure that all students can fully engage in outdoor experiences and benefit from the learning opportunities they provide (Humberstone & Stan, 2019).

However, despite its numerous benefits, implementing OE at KS3 schools poses several challenges. Limited resources, including funding, time, and access to suitable outdoor spaces, often hinder schools from incorporating outdoor learning into their curriculum effectively (Beames et al., 2012). Furthermore, concerns about health and safety regulations, particularly in adventurous outdoor activities, may lead to risk aversion among educators and policymakers (Dillon et al., 2006).

Additionally, standardised testing and curriculum pressures within the UK education system prioritise academic achievement over experiential learning, thereby marginalising OE initiatives (Gray, 2015). This emphasis on exam-oriented teaching restricts teachers' autonomy and creativity in designing outdoor learning experiences that align with KS3 curriculum objectives (Hill, 2015).

Barrier one:

This dissertation will now discuss and explore more about the most common barriers for KS3 children accessing OE. The first of which is financial. The incorporation of OE into the UK school curriculum requires funding for transportation, specialised equipment, and trained instructors. Unfortunately, budget constraints within educational institutions often prioritise core academic subjects over extracurricular activities like OE (Brynard, 2016). This narrow focus on academic outcomes marginalises OE, despite its proven benefits for physical and mental well-being, social skills, and environmental awareness (Waite et al., 2018). As a result, schools serving socio-economically disadvantaged communities frequently lack the resources to provide comprehensive OE programs, widening the gap in access.

One of the primary factors contributing to the funding crisis is the series of budget cuts imposed on schools by the government. According to a report by the Institute for Fiscal Studies (IFS), real-terms funding per pupil in England's secondary schools fell by approximately 8% between 2009-10 and 2019-20, marking the largest drop in funding since the 1970s (IFS, 2020). These cuts have forced schools to make difficult decisions regarding staffing, resources, and extracurricular activities, often resulting in diminished educational experiences for students. The funding shortfall has led to a shortage of essential resources within secondary schools. Textbooks, laboratory equipment, and IT facilities are often outdated or insufficient to meet the needs of modern curricula. With these budgetary constraints and financial pressures on core subjects, the allocation of funds for OE initiatives may become even more limited, as these programs are not always perceived as a priority within schools.

The financial limitations faced by schools present a significant barrier to the development of OE facilities. For example, constructing a high-quality high ropes adventure facility can entail substantial costs, often exceeding £15,000, and this figure does not even encompass additional expenses such as inspections, planning permissions, equipment procurement, and staff training. Given the constrained budgets of schools in the UK, it is understandable why the establishment of such facilities may not be feasible or prioritised. In recent years, UK secondary schools have been struggling with a funding crisis that has had far-reaching implications for both students and educators. This crisis, characterised by budget cuts, inadequate resources, and strained infrastructure, has significantly impacted the quality of education and the overall well-being of students.

In addition to the expenditures associated with constructing specialised facilities, there exists a significant financial burden related to training and certifying teachers to a proficiency level necessary for conducting these sessions effectively. Enrolling school staff in a training and qualification regimen not only entails a considerable time investment for them to attain the prerequisite competencies for assessment clearance but also imposes additional financial strain on schools. On average, the cost per individual for either training or assessment falls within the range of £250 to

£500. This outlay can swiftly accumulate for schools, particularly when funds are limited. Additionally, apart from the financial implications, the duration of this training process is exaggerated by the need for personal skill development and fulfilment of prerequisite criteria. Given the inherent time constraints faced by teachers, this added pressure and time commitment may prove detrimental to their well-being. As an alternative approach, schools may opt to engage external professionals to oversee sessions and activities. However, this alternative could potentially entail higher long-term costs compared to internal staff training, rendering it an economically non-viable option in the broader scheme of financial planning for educational institutions.

Therefore, it is a common practice that typically entails schools arranging field trips to Outdoor Education Centres (OECs) to facilitate the mandatory week-long OE program required for students in their respective age cohorts. As articulated on the Government's website, Key Stage 3 (KS3) pupils are expected to engage in "outdoor and adventurous activities which present intellectual and physical challenges" (UK Government, 2013) and to develop teamwork, trust, and problem-solving skills. Through participation in OEC programs, children gain outdoor experiences that foster personal development, challenge their abilities, and allow for the exploration of boundaries. However, these experiences are not without financial implications. While schools strive to subsidise these trips to minimise costs, the expenses associated with organising and financing such excursions can still strain school budgets. Consequently, the rate of subsidisation provided by schools is gradually diminishing over time. (Goolsbee and Guryan, 2006.)

To develop this from a different perspective, children's Socio-economic status plays a pivotal role in determining the available access to OE. Families with higher incomes can afford to enrol their children in extracurricular outdoor activities or school trips, ensuring they have exposure to nature-based learning and play experiences (Lau, 2020). Conversely, children from low-income households face financial barriers that limit their participation in such programs. Research indicates that children from low-income backgrounds are disproportionately affected by lack of access to outdoor spaces and recreational opportunities (Faulkner et al., 2021).

Furthermore, indirect costs associated with OE, such as lost wages for parents taking time off work to accompany their children on trips or additional childcare arrangements for siblings left at home, further exacerbate financial barriers (Rickinson et al., 2015). For families already facing economic hardship, these additional costs may render participation in OE unfeasible, widening the gap in access between socio-economic groups.

Consequently, local governments have collaborated closely with OECs and sports providers to formulate activity plans aimed at underprivileged children, facilitating their engagement in a diverse array of activities or experiences during school holiday

periods, at no cost to schools or families. These initiatives afford participants the opportunity to partake in outdoor adventurous pursuits or sports activities alongside peers, experiences that might otherwise be financially prohibitive. Moreover, these programs often include provisions for meals, alleviating concerns about food insecurity for children from economically disadvantaged backgrounds. One notable example of such initiatives is the Holiday Activities & Food Programme (HAF), created in 2018 and subsequently expanded to encompass upper-tier local authorities by the Easter and summer holidays of 2021. The resounding success of the program prompted the government to announce a substantial investment of over £200 million annually over the subsequent three years, (British Government, 2024) underscoring its commitment to the HAF initiative. This beneficial governmental effort to provide access to enriching activities and challenges for economically disadvantaged communities has not only empowered children to develop new skills but has also fostered a sense of self-assurance and resilience among participants.

Programmes like these have shown and proved that children who don't have as much spare money should still be able to partake in outdoor adventurous activities, through which they have developed themselves greatly.

Based on the author's firsthand experience instructing and leading sessions within a HAF programme, it was observed that the barriers outlined in the dissertation gradually diminished as children actively participated in the activities. Initially, many, if not all, of the children exhibited reserved and reticent behaviour upon arrival, (LUO, 2024) which was anticipated given the novelty and unfamiliarity of the programme. However, as the activities progressed over the course of the day or days, depending on the duration of their attendance, interpersonal bonds strengthened, leading to a gradual lowering of personal barriers. This facilitated increased socialisation among the children themselves and with the staff team, fostering a conducive environment for communication, idea sharing, assumption of responsibilities in activities, and effective teamwork in overcoming challenges. Consequently, the children experienced heightened feelings of inclusivity, which manifested in notable improvements in their behaviour and attitude. Moreover, the establishment of a rapport between the children and the staff team provided an avenue for some children to share personal issues from their home lives. This exchange facilitated a deeper understanding of their struggles among the staff, particularly those with qualifications in therapy and life coaching, enabling them to offer more personalised support and create a sense of comfort and understanding for the children.

Having run the HAF programme at our OEC for several years, we've welcomed numerous returning participants (LUO, 2024) who attested to the program's positive impact on their overall motivation, enthusiasm, and mental well-being. The presence of returning participants also provided an opportunity for us to gather feedback from the parents and caregivers of these children, all of whom expressed overwhelmingly

positive sentiments. These stakeholders were grateful for the transformative experiences provided by the program, noting observable improvements in their children's behaviour both at home and in school.

Overall with positive feedback from parents stating that there have been a lot less phone calls home, from the school as the children feel more confident within themselves. Along with a noticeable level of improved behaviour, resulting in them being passionate about bringing the children back for another experience. Such feedback highlights the benefits of children participating in OE. Highlighting how the author's personal experience is a prime way of emphasising the pivotal role of programs like HAF, which integrate OE components, in supporting children from economically disadvantaged backgrounds. These programs not only provide valuable opportunities for personal development but also contribute to the holistic growth of participants, ultimately empowering them to become more resilient and well-rounded individuals.

Barrier two:

In the UK, geographical issues often impose significant constraints to OE for children. One of the primary geographical constraints on access to OE in the UK is the immediate availability of natural spaces. Rural areas typically have expansive green spaces, including parks, forests, and countryside, providing a multitude of opportunities for outdoor learning experiences. On the other hand, urban areas tend to be characterised by limited green spaces and a higher density of built environments, which restricts the availability of suitable OE venues (Blair, 2009). This discrepancy in natural landscapes directly impacts the accessibility of OE programs for children living in urban environments. This can be attributed to the limited availability of expansive outdoor spaces where children can freely explore and engage in adventurous activities.

Geographical constraints can relate to socio-economic barriers as socio-economic disparities between rural and urban areas enhance the accessibility gap. Research indicates that “children from low-income urban communities face greater barriers to participating in OE activities compared to their rural counterparts.” (Wolfe & McDonnell, 2004). Financial constraints may limit access to transportation, outdoor equipment, and organised OE programs, therefore inequality in access to these valuable learning experiences. Additionally, the higher cost of maintaining OE facilities in urban areas, where land prices are higher, may further restrict opportunities for children to engage with nature (Hartig et al., 2014).

The impact of geographical constraints on access to OE is further compounded by educational policies and resource allocation. In the UK, funding for OE programs varies across regions, with disparities in financial support between rural and urban areas (Bebbington et al., 2019). This unequal distribution of resources perpetuates inequities in access to outdoor education, as schools in economically disadvantaged areas struggle to prioritise outdoor learning initiatives amidst competing demands for limited funding.

Whilst it may seem obvious, the UK's variable climate, characterised by frequent rain and unpredictable weather patterns, can pose obstacles to OE. In regions with harsh weather, such as Scotland or the northwest of England, outdoor activities may be limited due to safety concerns or discomfort for participants (Ballantyne & Packer, 2009). Harsh weather conditions may deter schools and organisations from conducting outdoor programs, particularly during the colder months, reducing the overall availability of OE opportunities. Such areas necessitate meticulous planning and organisation to ensure the seamless execution of activities or daily operations, thereby maximising safety protocols and mitigating potential risks. For instance, many schools typically refrain from organising OE activities or initiatives like the Duke of Edinburgh Award during the period from November to the end of February. This hiatus is attributable to the colder and harsher environmental conditions prevalent during these months, which elevate the risk level associated with such

endeavours. Consequently, conducting activities during this time necessitates additional training for students and heightened safety considerations for the supervising staff team.

Another geographical barrier that hinders access to OE is that children may be constrained by the proximity of schools and communities to water bodies such as rivers, lakes, or the sea. While coastal areas offer unique opportunities for marine-based outdoor learning, inland regions could have limited access to aquatic environments that can be used for educational purposes (Dillon et al., 2006). This disparity can affect the diversity of outdoor learning experiences available to children across different geographical locations. This is because blue spaces encourage physical activity through activities like swimming, boating, and beach games. These activities don't only promote physical fitness but also foster a sense of adventure and exploration, which are crucial for children's development. To build on this, studies indicate that exposure to water environments can have a calming effect on the mind and reduce symptoms of stress and anxiety (White et al., 2010). Also, the sight and sound of water can evoke positive emotions and create a sense of tranquillity, benefiting children's mental health and overall quality of life.

Finally, geographical constraints related to ecological sensitivity or conservation efforts may impact access to OEC's or outdoor adventure locations. Protected areas, nature reserves, and designated wildlife habitats require careful management to balance educational activities with environmental preservation goals (Bixler & Floyd, 1997). The restrictions on access to or activities within ecologically sensitive areas may limit the availability of OE opportunities for children, particularly in regions with significant biodiversity or conservation value. While these outdoor spaces can serve as invaluable educational tools for highlighting facts and promoting environmental awareness, their utility may be constrained by factors such as the time of year, prevailing seasons, and the extent of damage or disruption resulting from children's visits to these areas.

Barrier three:

The third barrier that this dissertation will highlight, that may hinder the availability of OE to KS3 aged children within the school timetable is disability. One of the primary barriers to OE for KS3 children with disabilities is physical accessibility. Many outdoor environments, such as hiking trails, bike parks, and adventurous activity locations, are unfortunately not designed with accessibility in mind. This lack of accessibility can make it difficult or near impossible for children with mobility impairments to participate fully in outdoor activities. Additionally, children with sensory disabilities may face challenges navigating unfamiliar outdoor environments. For example, uneven terrain, lack of ramps, and inaccessible facilities such as toilets and changing rooms can hinder participation for children with mobility impairments (Sport England, 2020). Additionally, the absence of specialised equipment or trained staff to assist children with disabilities further exacerbates these physical barriers (Alliance for Inclusive Education, 2017).

In addition to physical obstacles, socio-cultural barriers also impede disabled KS3 children from accessing OE. Negative attitudes and stereotypes surrounding disability can lead to exclusion and discrimination within OE settings (Equality and Human Rights Commission, 2017). This can manifest in the form of low expectations from educators, peer bullying, and a lack of inclusive policies and practices (Children's Commissioner for England, 2019). In the next paragraph, a more detailed discussion of the issues concerning disability and accessibility to OE will take place. Moreover, societal perceptions of disability as a limitation rather than a diversity asset can discourage disabled children from participating in outdoor activities (British Council, 2016).

The lack of inclusive educational policies and practices further highlights the barrier of disability in accessing OE for KS3 aged children. Despite legislation such as the Equality Act 2010, which mandates reasonable adjustments to ensure equal access for disabled individuals, implementation within the realm of OE remains inadequate (Department for Education, 2020). Limited funding, insufficient training for educators, and a lack of awareness about inclusive practices contribute to the perpetuation of exclusionary environments (Outdoor Education Research & Evaluation Center, 2018). While some OE providers may offer inclusive activities, the specific requirements of children with disabilities are often overlooked. For example, children with sensory impairments may require modified activities or sensory-friendly environments, while those with learning disabilities may benefit from adapted teaching methods (Countryside Mobility, 2021). However, the lack of specialised provision means that disabled children may struggle to fully engage and participate in OE experiences, leading to feelings of frustration and exclusion (Outdoor Learning Institute, 2018). To build on this, there can be communication and language barriers that also impede disabled KS3 children's access to OE. Outdoor activities often involve verbal instructions, group discussions, and social interactions, which may pose challenges for children with communication impairments or language

difficulties. Without appropriate support or accommodations, disabled children may struggle to understand instructions, express themselves effectively, or engage in meaningful communication with peers and educators during OE experiences (AbilityNet, 2021).

Along with a lack of instructor training or understanding, another significant barrier for KS3 aged children with disabilities accessing OE is the lack of adaptive equipment and assistive technology. Outdoor activities often require specialised gear or equipment that can accommodate the needs of children with disabilities, such as adaptive bicycles, all-terrain wheelchairs, or sensory-friendly equipment. However, many OE programs and facilities may not have access to or provide such equipment, limiting the participation of disabled children in outdoor activities (National Center on Accessible Educational Materials, 2020). Without access to adaptive equipment and assistive technology, disabled KS3 children may struggle to engage fully in OE experiences, leading to feelings of exclusion and frustration. For instance, a KS3 student with visual impairments may require tactile maps or audio-based navigation devices to participate in outdoor orienteering activities. However, if the OE program does not have access to these assistive technologies, the student may be unable to fully engage in the activity, limiting their learning opportunities and sense of inclusion.

Barrier four:

In an era dominated by technology, the allure of screens often pulls young minds away from the great outdoors. While technology undoubtedly offers numerous benefits, its pervasive presence can become a barrier to outdoor engagement, especially for KS3 aged children. We will now explore the multifaceted ways in which technology serves as a barrier to outdoor experiences for this demographic, examining its impact on physical health, mental well-being, and environmental awareness.

One of the primary concerns regarding technology's influence on outdoor engagement is its detrimental effect on physical health. KS3 aged children are at a crucial stage of development where regular physical activity is vital for their overall well-being. However, excessive screen time, often associated with technological devices, leads to sedentary behaviour and a decline in physical activity levels. Research by Jago et al. (2018) highlights the negative correlation between screen time and physical fitness among adolescents, indicating that prolonged use of technology can hinder the development of fundamental motor skills and cardiovascular fitness.

Moreover, the sedentary nature of screen-based activities contributes to a host of health issues, including obesity, poor posture, and eye strain (Rosenfield, 2016). These health implications not only diminish the quality of life for KS3 aged children but also deter them from participating in outdoor activities that require physical exertion. Therefore, the pervasive use of technology serves as a significant barrier to fostering a healthy lifestyle and active engagement with the outdoors.

The pervasive use of technology also has significant implications for the mental health well being of KS3 aged children. Research suggests a correlation between excessive screen time and mental health issues such as anxiety, depression, and attention-deficit/hyperactivity disorder (ADHD) (Twenge & Campbell, 2018). Constant exposure to screens can lead to overstimulation, disrupted sleep patterns, and decreased resilience to stress, ultimately impacting cognitive functioning and emotional regulation.

Moreover, the virtual world created by technology often serves as an escape from real-life stress, further highlighting feelings of social isolation and disconnection from the natural environment (Rosen, 2011). Without opportunities to engage with nature, children miss out on the restorative benefits of outdoor spaces, including reduced stress levels, improved mood, and enhanced cognitive function (Bratman et al., 2012). As a result, the overreliance on technology deprives KS3 aged children of essential coping mechanisms and emotional resilience-building experiences.

In addition to physical and mental health concerns, the use of technology within outdoor settings can contribute to social isolation and hinder the development of interpersonal skills among KS3 aged children. While digital communication platforms

offer connectivity with peers, they often replace face to face interactions and meaningful connections in real world settings (Subrahmanyam et al., 2000). As a result, children may struggle to develop crucial social skills such as empathy, communication, and conflict resolution.

Furthermore, the immersive nature of technology can lead to a narrowing of social networks, with children preferring online interactions with like minded individuals over diverse social experiences found in outdoor environments (Valkenburg & Peter, 2007). The absence of collaborative outdoor activities deprives children of opportunities to develop teamwork, leadership, and cooperation skills, which are essential for navigating real world social dynamics (Durlak et al., 2011). The overemphasis on technology within outdoor contexts can impede the holistic development of KS3 aged children, hindering their ability to thrive in social settings not just at a young age, but through life as a whole.

Another point is that excessive technology use fosters environmental detachment among KS3 aged children. The virtual world created by digital devices often overshadows the natural environment, leading to a lack of appreciation for biodiversity and ecological systems (Chawla, 2006). Children may perceive nature as irrelevant or distant, further perpetuating the cycle of disengagement from outdoor spaces (Miller, 2005). Consequently, the erosion of environmental awareness diminishes motivation to participate in conservation efforts and sustainable practices, exacerbating ecological challenges (Ballantyne & Packer, 2002).

Recommendations:

This dissertation will now highlight some recommendations to combat the previously discussed barriers for KS3 aged children accessing OE through the school curriculum and timetable.

Financial:

Firstly, to address the financial barriers that hinder the access to OE for KS3 aged children, there needs to be advocacy for increased funding allocation specifically designated for OE within school budgets. By prioritising OE alongside core academic subjects, educational institutions can ensure equitable access to outdoor learning experiences for all students. Increased funding allocation can facilitate the development and implementation of comprehensive OE programs that offer a wide range of experiential learning opportunities. These programs may include outdoor expeditions, environmental studies, team-building activities, and adventure sports, among other activities tailored to the interests and educational objectives of KS3 students.

By integrating OE into the school curriculum and allocating sufficient resources, educational institutions can ensure equitable access to OE for all students, regardless of their socio-economic background. This approach not only promotes physical health and well-being but also fosters social-emotional development, enhances problem-solving skills, and encourages environmental stewardship.

Engaging the local community through fundraising events, grant applications, and crowdfunding campaigns can be effective strategies to generate additional funds in support of OE initiatives. By tapping into the resources of local businesses, parent and teacher associations, as well as community organisations, it becomes possible to garner financial support to ensure that all children have access to outdoor learning experiences (Brown & Green, 2019).

If the government was to provide grants or subsidies for teacher training and certification in OE, it would encourage schools to invest in staff development. This would ensure that educators have the necessary skills and qualifications to lead effective outdoor learning experiences (Johnson et al., 2021). By supporting ongoing professional development, schools can enhance the quality and effectiveness of their OE programs. To ensure that teachers are kept up to date with their outdoor continued professional development, to maximise the potential for the outdoor activity sessions they deliver to the students.

Supporting and expanding government initiatives like the HAF programme provides children from economically disadvantaged backgrounds with opportunities to engage in outdoor activities during school holidays (Taylor, 2021). Continued investment in such programs demonstrates a commitment to ensuring equitable access to OE experiences and promotes holistic development amongst young learners.

Geographical:

To address the geographical barriers faced by KS3 aged school children, several strategies can be implemented such as the ability to utilise existing green spaces creatively to enhance development. For example, In urban areas, where green spaces are limited, schools can collaborate with local councils or community organisations to repurpose existing spaces for outdoor learning. This could involve transforming small parks, vacant lots, or even rooftops into green educational spaces where children can engage in outdoor activities. Creating these outdoor spaces with diverse plant life or low risk activity equipment can encourage active engagement among the children within an outdoor environment. Incorporating equipment that facilitates physical activity and exploration, such as climbing structures or sensory gardens, can promote holistic development and sensory stimulation. Another approach involves the children in the development of these spaces, turning them into educational environments. Through hands-on involvement in planting and caring for fruits and vegetables, children can learn about the life cycle and ecological concepts, linking OE to core subjects such as science. This experiential learning approach not only fosters a deeper connection to nature but also promotes interdisciplinary learning and reinforces classroom concepts in a practical setting.

Another solution to combat the geographical barrier would be for schools or the government to Invest in weather resistant outdoor facilities, such as covered outdoor classrooms or shelters. These structures do not require large amounts of space nor do they require large amounts of funding to be constructed. However they would allow outdoor learning activities to continue even in inclement weather conditions, which is always a barrier within the UK. This ensures continuity in OE and maximises the use of outdoor spaces (Jones & Taylor, 2022). Outdoor classrooms offer versatile learning environments that can be utilised beyond OE sessions. Integrating other subjects into outdoor learning activities can enhance student engagement and provide a refreshing break from traditional classroom lessons. (Gatley, 2020) For instance, science classes can conduct experiments or field observations in nature, while art classes can utilise the outdoor setting as inspiration for creative projects. Additionally, history lessons can incorporate visits to historical sites or landmarks, and literature classes can host outdoor readings or discussions. By leveraging outdoor spaces for interdisciplinary learning, educators can enrich students' educational experiences and foster a deeper connection to the natural world.

Expanding upon this concept, the enrichment of children's outdoor experiences can be further augmented by leveraging diverse outdoor learning environments beyond traditional green spaces. Schools with ample outdoor space or access to nearby nature reserves, woodlands, or rivers can capitalise on these natural settings to provide varied and immersive outdoor learning opportunities. Exploring different ecosystems, conducting field studies, and engaging in hands-on activities specific to each environment can deepen students' understanding of ecological concepts and

foster a profound appreciation for biodiversity. Moreover, incorporating local outdoor areas into the curriculum not only enhances experiential learning but also promotes environmental stewardship and a sense of connection to the community's natural heritage.

Disability:

To address the challenges associated with disabilities in OE, collaborative efforts among schools, Parent-Teacher Association (PTA) teams, and governmental authorities can yield effective solutions. One key strategy involves implementing physical modifications to outdoor environments to ensure accessibility for children with mobility impairments. These developments would include installing ramps, accessible toilets, and changing rooms that meet the needs of individuals with diverse abilities. By making these facilities available, outdoor education programs become more inclusive and welcoming to all participants (Smith & Johnson, 2020).

Expanding upon these initiatives, enhancing the accessibility of outdoor trails and paths can significantly contribute to making outdoor spaces more inclusive for all individuals. This development entails resurfacing trails with smoother terrain to facilitate wheelchair access and ensuring appropriate gradients for footpaths to accommodate individuals with mobility impairments. Furthermore, modifying trails to remove obstacles such as rocks or roots can create even surfaces, enhancing navigability for children with mobility impairments. Additionally, incorporating rest areas along the trails provides participants with opportunities to take breaks and enjoy the surroundings comfortably, further promoting inclusivity and enjoyment of outdoor experiences (Brown & Taylor, 2019). These improvements not only benefit individuals with disabilities but also enhance the overall accessibility and usability of outdoor spaces for all members of the community.

To combat the issues regarding policies and understanding on disabilities within OE, inclusive policies and practices need to be created and followed by all OE facilitators, these are essential for creating a positive and supportive environment for children with disabilities. This includes developing anti-bullying policies that explicitly prohibit discrimination based on disability and promoting diversity training for staff to increase awareness and understanding of diverse needs. By establishing a culture of inclusivity, OE programs can ensure that all children feel welcome and respected (Smith & Jones, 2021).

Also to further develop understanding around disability, it is essential to educate school peers about disability awareness and promote empathy and inclusion among other students. Fostering a supportive social environment that prioritises inclusion and accessibility is essential for ensuring that disability is not viewed as a barrier but rather as an opportunity for enhanced engagement for all individuals. Opportunities should be accessible for school and OEC staff for disability awareness training and facilitating discussions. This would include topics about diversity and inclusion to help combat negative attitudes and stereotypes regarding people with disabilities.

Establishing peer support networks or buddy systems can provide invaluable assistance and companionship for children with disabilities during outdoor activities. This is due to pairing children with disabilities with peer mentors or buddies who can

offer encouragement, assistance, and friendship fosters a sense of belonging and inclusion within the cohort. As a result peer support networks promote collaboration, mutual respect, and social integration, enhancing the overall OE experience for all participants (Taylor et al., 2019).

Finally to combat the barriers that are associated with disability within the outdoors, schools and OEC's can implement alternative communication methods. This would include assistance such as visual aids, sign language interpreters, or communication boards. These facilitation aids are essential for supporting children with communication impairments. This is due to a range of factors such as visual aids, including pictures, symbols, or diagrams, which are able to help convey information and instructions effectively. Sign language interpreters enable children who are deaf or hard of hearing to access verbal communication, while communication boards provide a means for non-verbal children to express themselves (Smith & Taylor, 2021).

A much simpler way of effectively facilitating children with disabilities within OE can be ideas such as providing clear and concise instructions during sessions or activities. This is crucial for ensuring that all children understand what is expected of them throughout the entire session, further explanation can be given to children who require it. The use of visual cues, demonstrations, and gestures to supplement verbal communication can make verbal instructions more accessible for participants who have hearing issues. For example as stated by Jones & Davis (2020) the ability to break down tasks into smaller steps and repeating key information can help children with communication impairments follow along and participate actively within an activity.

This breakdown of tasks can also involve organising smaller group activities within a session. This tactic is an effective way to facilitate meaningful communication and social interaction among children with disabilities. As they are able to work within the team to generate ideas and develop their teamwork skills, without feeling the stress or pressure of being in a larger group. overall group activities promote teamwork, problem-solving skills, and positive social relationships, enhancing the overall OE experience (Brown & Johnson, 2018).

Technology within the outdoors:

Finally to combat the issues and barriers that technology brings, it is important to promote balanced screen time. Educational campaigns and provisions of screen time guidelines are effective strategies to raise awareness and encourage healthy habits for children from a young age. To expand on this, by launching educational campaigns targeting parents, educators, and children themselves the overall awareness about the importance of balancing screen time with outdoor activities can become understood by all. These campaigns can highlight the benefits of outdoor play, such as physical health, social development, and cognitive skills. They can also provide practical tips and resources for incorporating more outdoor time into daily routines. By emphasising the value of both screen-based and outdoor activities, these campaigns promote a balanced approach to technology use and development for children through outdoor play. (Smith & Brown, 2020).

Through providing guidelines and recommendations for appropriate screen time limits this will help families establish healthy habits and prioritise outdoor play and physical activity. These guidelines can be based on age-specific recommendations from reputable sources, such as paediatric associations or health organisations. By setting clear expectations and boundaries around screen time, families can create a balanced media diet that includes opportunities for outdoor exploration, creativity, and social interaction (Jones & Taylor, 2021).

There's no doubt that technology is ever growing and becoming a larger part of everyday lives, therefore it is important to make it an advantage through providing it as an educational resource. For example, outdoor apps can offer interactive learning experiences by providing information about local flora and fauna, geological features, and historical landmarks. This could allow users to engage with the content through quizzes, challenges, enhancing their understanding and appreciation of the natural world (Jones & Davis, 2020). To develop this further, outdoor apps can serve as educational tools for teaching the students about environmental conservation, sustainability practices, and the importance of protecting natural habitats. Through engaging multimedia content from KS3, the children will gain a deeper understanding of the environmental issues around them and therefore will be inspired to take action to preserve the planet (Taylor et al., 2020).

Conclusion:

In conclusion, this dissertation has extensively explored the multifaceted benefits of OE for KS3 school children, encompassing social, mental health, and physical fitness aspects of their well-being, along with the impartation of valuable life skills. Research has consistently shown that participation in outdoor activities contributes positively to various dimensions of children's development OE not only promotes physical health by encouraging physical activity but also fosters social interactions, teamwork, resilience, and problem-solving skills (Knight, 2016).

However, despite the evident benefits, this dissertation has also identified and examined the primary barriers impeding KS3 access to OE. These barriers include financial constraints, geographical limitations, disabilities, and technological challenges within outdoor settings (Brookes, 2018). Financial constraints often restrict schools from investing in outdoor equipment, transportation, and qualified staff (Gray et al., 2015). Geographical limitations, particularly in urban areas, can limit access to natural outdoor spaces suitable for educational activities. Additionally, students with disabilities may face accessibility issues and require specialised support to fully participate in outdoor programs. Moreover, the integration of technology in outdoor settings brings its own set of challenges, including concerns about screen time, distraction, and the loss of authentic outdoor experiences.

While these barriers pose significant challenges to outdoor participation, they are not insurmountable. Through concerted efforts involving additional organisation, collaboration, and funding from local authorities and sponsors, these barriers can be effectively addressed. This may entail acquiring necessary equipment, providing training, establishing OE facilities, and ultimately fostering a greater level of inclusion for all KS3 students across the UK. Collaboration between schools, government agencies, non-profit organisations, and community groups can lead to the development of innovative solutions and the sharing of resources to overcome these challenges (Birch & Martin, 2010; Dymont & Bell, 2007). Furthermore, the implementation of inclusive practices and the provision of targeted support for students with disabilities can ensure that they are not left behind in outdoor learning opportunities.

By overcoming these barriers, we can ensure that every KS3 student has the opportunity to benefit from the enriching experiences and invaluable learning opportunities offered by OE. This not only promotes the holistic development of young people but also contributes to building a more environmentally conscious and resilient generation (Bixler et al., 2006; Knight, 2016). It is imperative that policymakers, educators, and stakeholders recognize the importance of OE and work collaboratively to create an inclusive and accessible outdoor learning environment for all children.

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