

ABSTRACT

I chose to undertake this study because disengagement from education has personal relevance to me. As someone who experienced disengagement during secondary school and later received a diagnosis of ADHD in adulthood, the themes explored in this research are closely connected to my own lived experience. Now, in my professional practice, I can contribute to meaningful change, which has further sparked my interest in understanding how learning environments can better support young people with complex needs. This study explores what happens when learning is moved out of the classroom and into outdoor, more-than-human environments, particularly for secondary school pupils who have disengaged and could be at risk of becoming excluded. It is based on practice within a community outdoor education organisation in Swansea, working with young people who struggle in traditional school settings. This study looks at how learning can be experienced differently in these environments and what this might mean for how we understand knowledge and education.

The enquiry draws on qualitative, practice-led research, including narrative enquiry via informal conversations, learner observation, reflective practice, thematic analysis with supporting quantitative data collection methods. It is informed by the concept of *friluftsliv* and by more-than-human perspectives. These ideas challenge more traditional views of education as something that happens in controlled classroom-based settings.

The study leads to the design of a conceptual outdoor learning model shaped by these insights. It argues that disengagement is not simply an issue with individual pupils but is closely linked to how traditional education is structured (Backman, 2007; Remmen & Iversen, 2022).

INTRODUCTION

This study is situated within Swansea, where evidence reveals a clear contradiction between policy aspirations for experiential learning and the continued lack of recognition of outdoor learning within secondary school practice (Estyn, 2018; Estyn, 2019; Estyn, 2020; Estyn, 2021; Estyn, 2023; Estyn, 2024; Estyn, 2025).

Mainstream secondary education is still largely organised around classroom learning with fixed timetables, where success is determined through measured outcomes. While this works for many pupils, it does not work for all. These environments can disadvantage learners who struggle with sitting for long periods within highly regulated spaces. In this sense, disengagement may reflect a mismatch between the learner and the environment in which learning takes place, rather than simply a lack of motivation or willingness.

At the same time, there has been increasing recognition of the value of outdoor learning. Research and policy highlight its potential to support and develop young people in meaningful ways (England, 2026). However, despite this, outdoor learning is often treated as an “extra” rather than a core part of learning (Backman, 2007; Remmen & Iversen, 2022). This creates a clear tension: if outdoor learning is recognised as beneficial, why is it not more widely embedded within schools?

This study is grounded in practice at Digging Deep CIC, a community outdoor education organisation set within seven acres of woodland. The organisation currently works with around seventy secondary school pupils. Through activities such as growing food, preparing meals, working with animals and managing outdoor spaces, young people are given opportunities to learn in ways that are practical and connected to nature.

These enquiries led to the following research question:

What happens when learning is relocated from the classroom into the more-than-human world?

This question asks how learning itself changes across different environments.

Two key ideas help frame this enquiry. The first is *friluftsliv*, a Scandinavian concept that roughly translates to “outdoor life”. More than simply outdoor activity, it refers to a way of living and learning that is closely connected to nature (Gurholt, 2014).

The second comes from more-than-human and new materialist perspectives, which challenge human-centred understandings of learning by emphasising the role of environments, materials and relationships within educational experience (Pleasants & Stewart, 2020).

LITERATURE REVIEW

Youth Disengagement from Traditional Education

Research suggests that a substantial proportion of young people disengage during secondary education. A large national study involving over 100,000 pupils in England found that more than one in four students begin to disengage during their first year of secondary school (Year 7). This is shown in declines in enjoyment of school, feelings of safety, trust in teachers and the declining belief that schoolwork leads to success. Unfortunately, for many pupils, engagement levels never fully recover after this initial decline (Business, 2025).

Social factors also contribute; research in Wales shows that over half (52%) of pupils who experienced youth homelessness displayed signs of school disengagement, compared to 20% of pupils who had not experienced homelessness. This highlights the complex relationship between personal circumstances and educational participation (Dr Ian Thomas, 2025).

Another factor influencing engagement is the decline in enrichment opportunities and experiential learning within schools. Research from the Centre for Young Lives indicates that participation in activities such as outdoor learning, sports, arts, and volunteering can significantly improve attendance and engagement. However, access to these opportunities has declined over the past decade, particularly for disadvantaged young people (Lives, 2025).

Mental Health Pressures in Traditional Schooling

Multiple pressures can impact wellbeing and contribute to disengagement.

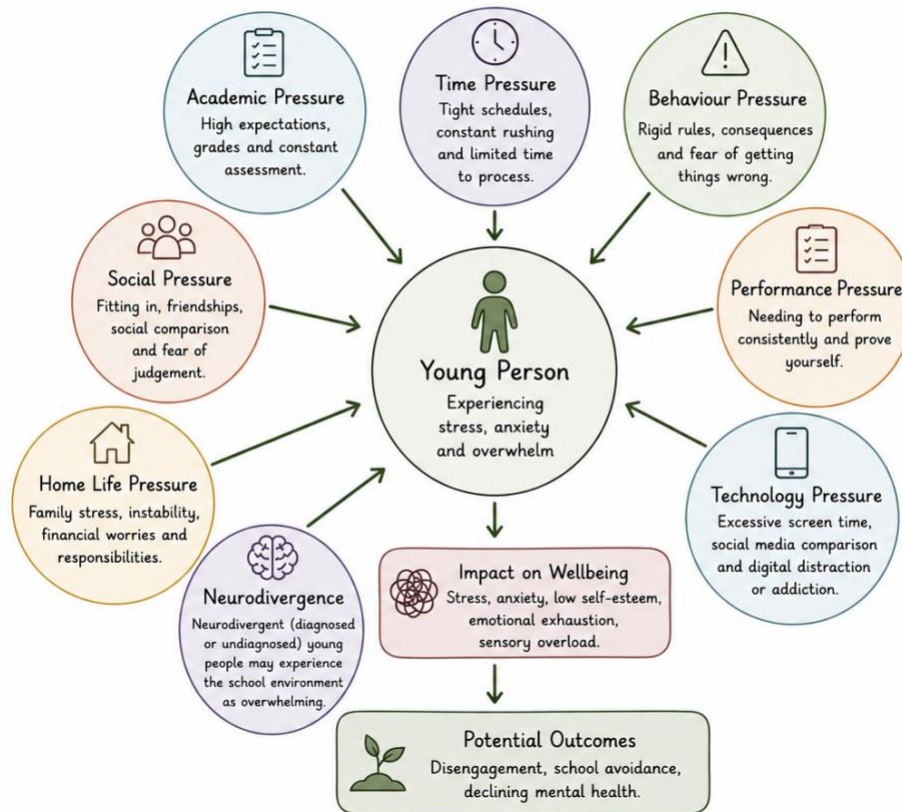


Figure 1. Mental health pressures affecting young people. Created by author using ChatGPT (OpenAI), 2026

Neurodivergence, School Distress and Alternative Approaches to Learning

Recent research has shown a strong link between neurodivergence and school disengagement. Traditional school environments can be difficult for some neurodivergent young people, particularly those with autism, ADHD and sensory differences.

Research by Sinéad Mullally and colleagues uses the term *school distress* to describe the emotional distress experienced by children who struggle to attend or remain in school. Their findings showed that many young people experiencing attendance difficulties were also identified as neurodivergent (Mullally, 2024).

Other research found that many neurodivergent pupils experience school as overwhelming and emotionally exhausting. Sensory overload combined with strict routine and pressure around behaviour and attainment can all contribute to anxiety and disengagement (Cormier, 2025).

This is particularly relevant to the current study as there is a vivid contrast in environments, with outdoor learning presenting a more flexible and less restrictive experience for these individuals.

This does not mean neurodivergent young people should be separated from mainstream education, but it does highlight the need for different approaches that recognise different ways of learning and experiencing the world.

On a personal level, the growing awareness around neurodivergence and school distress feels particularly important. Reflecting on my own experiences in education, having feelings of overwhelm and anxiety recognised and validated, rather than dismissed as laziness and lack of motivation, would have made a significant difference to how I experienced school.

At the same time, there is still a long way to go. Awareness of neurodivergence has increased significantly in recent years, alongside rising numbers of autism and ADHD referrals and diagnoses. NHS data shows substantial increases in both autism assessment referrals and ADHD waiting lists, particularly among children and young people (NHS, 2025). However, growing awareness has also placed increasing pressure on already overstretched support systems. Families face extremely long waiting times for assessment and additional support. In some cases, this means children continue to experience distress and anxiety and within education before receiving any meaningful understanding to allow for supportive measures to be introduced (Society, 2025).

Mental Health in Young People

Mental health among young people is one of the biggest challenges facing society in 2026. More young people are struggling with their mental health than in previous generations, and many begin experiencing difficulties at an early age. These challenges are not caused by just one factor, but by a combination of pressures from school, social life, technology and the influence of the wider society.

Recent data from NHS England shows that around 1 in 5 children and young people (aged 8–25) in England have a probable mental health disorder (England, 2023). This is a large increase compared to earlier years.

Research from Young Minds also shows that around 75% start before age 24 (Minds, n.d.).

This means that mental health issues often begin during school years, making early support very important.

Despite increased awareness, access to mental health support remains a critical issue. Services such as Child and Adolescent Mental Health Services (CAMHS) are often characterised by long waiting times, high thresholds for entry and not to mention a limited capacity. As noted by YoungMinds, many young people are unable to access help until their condition reaches a crisis point (Minds, n.d.).

The Potential of Nature-Based Learning Environments

These environments include outdoor education programmes, forest schools and land-based learning initiatives where students learn through direct interaction with natural environments.

As we know, one of the most widely reported benefits of nature-based learning is improved engagement and motivation, enabling and encouraging learner participation and curiosity. Research shows that regular outdoor learning within the school curriculum can significantly improve pupils' enjoyment of lessons and behaviour as a whole (England, 2016). This can be particularly beneficial for students experiencing anxiety or pressure within traditional school systems. Regular contact with nature can also aid cognitive development in children and adolescents (Chawla, 2015).

In addition to academic and wellbeing benefits, outdoor education can support the development of important social and personal skills. Woodland management and building projects require teamwork and resilience. Studies of outdoor residential learning programmes show significant improvements in young people's confidence and their ability to work collaboratively (Away, n.d.).

Research comparing different models of outdoor education, such as forest schools and Scandinavian outdoor learning approaches, highlights how these environments can create more inclusive learning experiences that respond to a wider range of student needs (Sue Waite, 2014).

Leading Outdoor Education Systems Globally Vs Secondary Schools in the UK

While countries such as Finland, Norway and New Zealand have embedded outdoor education within their secondary school systems, provision in the UK remains inconsistent and often on the peripheral. In these leading countries, outdoor learning is integrated into the national curriculum and used across subjects. It's understood as a normal part of everyday school life, supported by policy frameworks that emphasise experiential and environment-based learning (Education, 2014; Research, 2020). In contrast, UK secondary education tends to prioritise classroom-based, exam-focused learning, with outdoor education typically positioned as an enrichment activity, such as school trips or programmes like the Duke of Edinburgh's Award, rather than a part of their core approach (Dillon, 2006; OECD, 2017). Cultural factors further reinforce this divide: concepts like *friluftsliv* in Norway reflect a strong societal connection to nature, whereas in the UK, nature is more often viewed as optional or recreational, with many young people, particularly in urban areas, having limited regular contact with natural environments (Lumber, 2017). Access to outdoor learning in the UK is also uneven, influenced by factors such as school funding, location, and availability of green space, which then contributes to wider inequalities (Natural England, 2016). The key distinction is systemic: in leading countries, outdoor education is significantly embedded and aligned with wellbeing-focused priorities, whereas in the UK it remains optional and over-ridden by performance-driven educational structures, including exams and league tables - which ultimately has the potential to negatively impact student wellbeing (Council, 2024). Addressing this gap would require not only increased provision, but broader changes in educational priorities and national policy.

In Welsh secondary schools, outdoor learning is supported in principle through the Welsh Government Curriculum for Wales, which promotes experiential, real-world learning and places wellbeing at the centre of education (Government, 2022). Within this framework, opportunities for outdoor education are limited, mostly evident in subjects such as Humanities, where fieldwork is a key component, as well as in Science and Health and Wellbeing, where engagement with the natural environment can support both learning and mental health (Government, 2025). A study reported by UK Government found that *"children are more motivated to learn when outside"* (England, 2023). Despite this knowledge, evidence from Estyn indicates that while outdoor and environmental learning are present within Welsh schools, their implementation is inconsistent.

In a few schools, learning experiences in the natural environment are an integral part of curriculum planning, but in many others this work is less well developed.

(Estyn, 2020).

This highlights significant variation in how outdoor learning is prioritised, with some schools embedding it within teaching and learning, while others relying on more occasional or project-based approaches. As a result, outdoor learning is not systematically integrated across the curriculum and varies depending on individual school priorities and staff expertise. When considered alongside wider evidence on curriculum pressures in secondary education, it suggests that outdoor learning remains uneven in scope and is not fully embedded within everyday teaching practice (Estyn, 2020). At a national level, this reflects a wider gap between policy and practice with the Curriculum for Wales actively promoting experiential, place-based learning and wellbeing (Government, 2022).

Outdoor Learning in Swansea

Analysis of inspection reports across Swansea secondary schools, shows that outdoor learning is rarely mentioned directly within curriculum delivery. While reports often refer to “a wide range of extra-curricular activities and experiences”, there is little direct reference to outdoor learning or the use of natural environments within everyday teaching and learning (Estyn, 2018; Estyn, 2024; Estyn, 2025).

This gap is particularly surprising in areas such as Swansea and Gower, where access to natural environments is readily available. It suggests that simply having access to outdoor spaces does not automatically mean outdoor learning becomes embedded within education.

Taken together, this suggests that the issue is not a lack of recognition of outdoor learning’s value, but a failure to consistently embed it within secondary education in the UK.

At a local level, The Down to Earth Project is Swansea-based providing outdoor learning through sustainable construction and land-based activities. Their studies provide an important example of how outdoor learning can be researched in practice. Jason Davies and colleagues used questionnaires and wellbeing scales before and after participation in sustainable construction projects to explore changes in mental health and social connection amongst NEET young people and other disadvantaged groups (Jason Davies, 2020). Their findings are useful because they show that practical outdoor activity can positively impact wellbeing and participation. However, the methodology remains largely focused on quantifiable results, which misses out how participants actually experience learning within these environments.

This has influenced my own methodology in two ways. Firstly, it supported the inclusion of small-scale quantitative methods such as attendance monitoring and feedback tools to identify patterns in participation over time. Secondly, it reinforced the importance of combining this with more qualitative approaches. Down to Earth’s research demonstrates that change can happen and pays attention to how learning is experienced through relationships and participation (Davies, et al., 2021).

The Down to Earth emoji feedback scale also influenced the use of emoji-based feedback within this study. The tool was designed as a simple and accessible way for participants to express mood and experience without relying heavily on written responses. This feels particularly relevant within this research, where some young people may struggle with formal feedback forms or traditional school-style evaluation methods

Together, these examples reinforce the value of outdoor learning whilst also highlighting the gap between successful practice and its limited integration within mainstream secondary education locally. This study intends to build on that work by focusing more closely on how learning is experienced.

Youth Disengagement

Youth disengagement from formal education is an increasing concern across the UK, including Wales (Government, 2022). It refers to reduced emotional, behavioural, and cognitive participation in education, often evident through low motivation, poor attendance, exclusion, or early withdrawal. One key indicator is the number of young people classified as NEET (Not in Education, Employment or Training). In Wales, 17% of 16–24-year-olds were NEET in the year ending September 2025, highlighting ongoing challenges in maintaining engagement with education and employment pathways (Gov.wales, 2025).

Traditional classroom environments have been widely criticised for failing to meet diverse learning needs, which may disadvantage learners who benefit from practical and creative approaches. Evidence suggests that rigid routines and a strong focus on testing can contribute to frustration and low confidence, resulting in disengagement (Mark Rickinson, 2004). Additionally, classroom-based learning often limits opportunities for hands-on engagement, despite research indicating that knowledge is more effectively developed through real-world experiences (Kolb et al., 1999). These environments may also overlook social and emotional dimensions of learning, with a strong focus on academic outcomes potentially neglecting wellbeing and personal development, which are proven to influence engagement (Kong, 2021).

The Potential of Experiential and Outdoor Learning

Experiential learning approaches offer an alternative educational model that emphasises learning through direct experience and practical engagement with real-world situations. Experiential learning theory proposes that learning occurs through a cycle of concrete experience via reflective observation and active experimentation (Kolb, et al., 1999).

Outdoor learning environments provide a particularly effective setting for experiential education. Activities such as environmental projects, woodland management, construction work and outdoor exploration encourage students to engage physically and socially with their surroundings while developing practical skills.

Research increasingly demonstrates that outdoor learning can have significant benefits for student engagement. A systematic review examining nature-based outdoor learning found measurable improvements in socio-emotional development and academic engagement among students participating in outdoor learning activities (Jeff Mann, 2022).

Similarly, research examining experiential outdoor learning programmes has shown that these approaches improve motivation and self esteem by allowing students to engage in meaningful, context-based learning experiences (Joan James, 2017)

These researchers' findings directly inform and support my study, which focuses on working with vulnerable young people who would benefit enormously from development in these areas.

Friluftsliv: Learning as Experience and Way of Being

The concept of *friluftsliv*, originating in Scandinavian traditions, is often used to describe a form of outdoor life that emphasises simplicity, connection to nature, and lived experience. Rather than viewing outdoor activity as a structured or goal-oriented task, *friluftsliv* frames time spent in nature as inherently valuable and central to personal development (Gurholt, 2014).

Gurholt (2014) highlights how outdoor experiences contribute to identity formation, suggesting that emotional and embodied encounters with nature play a key role in shaping how individuals understand themselves in the world. From this perspective, learning is not separate from experience - it emerges through it. This contrasts with more traditional educational models, where learning is often abstracted from context and prioritises cognitive outcomes over lived experience.

However, more recent work has complicated this view. Rodriguez-Morales and Syvertsen (2025) argue that *friluftsliv* should not be understood as a fixed or universal concept, but as something that is culturally constructed and increasingly influenced by globalisation. As *friluftsliv* becomes more widely adopted beyond Scandinavia, it is often reframed as a lifestyle or wellbeing practice, and perhaps changes in meaning across different contexts.

Similarly, Simon Beames critiques the tendency to present *friluftsliv* as an “almost perfect” model of outdoor living, suggesting that such representations can overlook issues like cultural specificity. This is particularly relevant when considering its

application within UK education, where social and institutional conditions are significantly different from Nordic contexts (Beames, 2012).

These perspectives add and air of caution to how we interpret *friluftsliv* as a framework for understanding outdoor learning. While it offers a powerful alternative to classroom-based education, it also requires critical engagement to avoid oversimplification or idealisation.

Outdoor Learning and Wellbeing

Natural England (2026) emphasises that engagement with nature can reduce stress, improve mood, and support overall health, while also improving social connection and increased physical activity. These findings are widely used to support the integration of outdoor approaches within education and public health initiatives.

Within educational contexts, outdoor learning is also associated with increased engagement, particularly for pupils who struggle in traditional classroom environments. Practical, hands-on activities can provide alternative ways of learning that are more accessible and meaningful for some learners. This is reflected in practice-based settings such as Digging Deep CIC, where young people often demonstrate higher levels of participation when learning outdoors.

However, while these benefits are well documented, the emphasis on measurable outcomes can also be limiting. Much of the research in this area focuses on demonstrating impact through indicators such as improved wellbeing or attainment, which may not fully capture the complexity of learning experiences. This aligns with critiques of research in outdoor studies, which argue that there is often a tendency to prioritise what can be measured over what can be experienced (Pleasants and Stewart, 2020).

Rethinking Learning: More-Than-Human Perspectives

Recent work in outdoor studies has begun to challenge more traditional understandings of learning by drawing on more-than-human and new materialist perspectives. These approaches suggest that learning is not solely a human process, but emerges through a network of interactions (Pleasants and Stewart, 2020).

From this perspective, elements such as weather, landscape, tools, and non-human life are not simply background factors, but active participants in the learning process. This shifts the focus away from individual cognition and towards relational and embodied experiences. It also challenges the idea that learning can be fully controlled or predicted, highlighting instead its context-dependent nature.

Pleasants and Stewart (2020) argue that research in outdoor studies has often been constrained by a “rush to method”, where the focus on data collection and analysis techniques limits deeper engagement with questions of knowledge and meaning. They propose a more open and flexible approach to research, where understanding emerges through practice rather than being imposed through predefined frameworks.

This perspective is particularly relevant to the current study, as it provides a way of understanding the differences between classroom-based and outdoor learning beyond simple comparisons of effectiveness. It suggests that these environments produce fundamentally different forms of learning, shaped by the relationships and interactions they enable.

Approach

This study adopts a qualitative, practice-led approach to explore how learning is experienced differently in outdoor, more-than-human environments. As Karen Barad argues, “we do not obtain knowledge by standing outside the world; we know because we are of the world” (Barad, 2007). Rather than attempting to measure the effectiveness of outdoor education through predefined outcomes, the research is concerned with how learning emerges through relationships between young people and the environment. In this sense, the study moves beyond a purely evaluative framework and takes a more exploratory and interpretive approach.

I have chosen to include limited quantitative methods, which are included to provide contextual insight into patterns of participation and engagement within the setting. These include attendance monitoring and accessible learner feedback methods, such as emoji-based responses, which offer simple indicators of emotional engagement and participation over time. However, these forms of data are not treated as objective measures of success, they are interpreted alongside the chosen qualitative methodologies to support a more holistic and well-rounded understanding of the learners’ experiences.

This sits well with critiques of research in outdoor studies which suggest that there is often a “rush to method”, where researchers prioritise data collection techniques (Pleasants & Stewart, 2020). In response, this study foregrounds a more relational and reflective understanding of research, where methods are not treated as neutral tools, but as part of the process through which meaning is produced.

The enquiry is also informed by more-than-human and new materialist perspectives. This perspective allows the educator to shift from a teacher to facilitator, instead of working towards rigid targets, the facilitator has greater freedom to respond emotionally and relationally. This creates space to recognise and nurture the small ‘aha’ moments that often go unnoticed within traditional education, allowing young people to develop their curiosity, giving them a stronger sense of their authentic creative selves. This is particularly relevant in outdoor education contexts, where elements such as land, weather, tools, and animals actively shape what and how learning takes place. As such, the research approach recognises that knowledge is relational and often unpredictable (Pleasants & Stewart, 2020).

Alongside this, the study draws on the concept of *friluftsliv*, which positions outdoor life itself as the way of learning, rather than simply a backdrop for activity (Gurholt, 2014). This supports an understanding of learning as embodied and experiential and reinforces the need for a methodological approach that can capture this lived, experiential journey.

Research Context and Positionality

I am a practitioner and researcher within this setting, which offers both opportunities and challenges. On one hand, this position allows for a deeper understanding of the context and day-to-day practices that shape learning experiences. It enables access to informal interactions and observations that might not be available to an external researcher. On the other hand, this dual role raises important questions around potential bias and subjectivity.

Rather than attempting to remove subjectivity, I've designed this study to acknowledge the researcher as part of the research process, which will require ongoing reflexivity, particularly in recognising how the researcher's assumptions and interactions may influence both the data and its interpretation.

Methods

The study draws on a combination of interwoven methods in order to best capture and contextualise the lived experience and complexities of the lived learning experience at Digging Deep, this enables the thoughtful development of the creative design response.

Practice at Digging Deep



Observation + Narrative Enquiry



Stakeholder Focus Groups



Reflective Practice



Emoji Feedback + Attendance



Thematic Analysis



Development of Learning Model

Narrative Enquiry

Narrative enquiry provides one of the central methodological approaches within this study, giving me a way of understanding how young people experience learning across different contexts. Drawing on Kim (Kim, 2016), narrative enquiry is conceptualised as both a phenomenon and a method, where experience is inherently storied and research involves engaging with and interpreting stories as they are lived and told.

An important part of this approach is the process of living, telling, retelling and reliving; highlighting that meaning is not fixed but continuously shaped through interaction and reflection. My study adopts the three-dimensional narrative inquiry space:

- Temporality (past, present, future)
- Sociality (personal and social conditions)
- Place (context and environment)

Temporality is reflected in participants' accounts of school experiences and outdoor engagement. Sociality includes emotions and interactions. Place is central, particularly in contrasting classroom and outdoor learning environments.

Narrative enquiry is conducted through informal conversations rather than structured interviews, allowing participants to express experiences naturally. The study focuses on potentially fragmented and evolving narratives and recognizes their contextual nature.

Participant Observation

Drawing on my ongoing involvement providing facilitation and support within sessions at Digging Deep; this involves observing how young people engage with activities, interact with others and respond to different elements of the environment.

This observation extends beyond human interactions; attention is given to how factors such as the weather, physical tasks, the materials and the presence of animals shape behaviour and engagement.

Supporting Quantitative and Participatory Feedback Methods

Alongside these qualitative methods, limited quantitative and participatory feedback methods are used to support understanding of learner engagement. These include attendance records and emoji-based feedback collected during or after activities.

Attendance data helps identify patterns of participation and consistency over time. Emoji feedback provides learners with a simple and accessible way to express feelings about activities and connection with others and outdoor experiences.

These methods are used alongside my chosen methods to support a broader understanding of learners' experiences. They also contribute to methodological triangulation by allowing different forms of data to be considered together.

reflections, attendance patterns and participatory 'emoji' feedback which will be collected periodically throughout Digging Deep sessions.

Themes are developed contextually through repeated interaction with the research material. This included identifying patterns of engagement, emotional response, participation, relationships and environmental interaction across multiple forms of data.

Alongside narrative enquiry and participant observation, attendance records and emoji-based feedback responses are used to support broader understanding of learner engagement over time. The feedback tool was informed by Jason Davies and colleagues (Jason Davies, 2020) emoji current mood and experience scale, which was developed to provide an ultra-brief and literacy-independent method of capturing wellbeing and current experience within green care settings at the Down to Earth project in Swansea. This combined approach helps to aligns with critiques of traditional qualitative analysis, which argue that reducing experiences into rigid categories can risk oversimplifying complex realities; by using various methods I can provide more attentive and in-depth investigations (Pleasants and Stewart, 2020). While thematic analysis is used to identify recurring patterns and points of significance, attention remains focused on preserving the experiential, contextual nature of the learning experiences.

The analysis is also closely linked to the development of the creative response. Insights and data gained from these methods will inform the evolving design of the conceptual more-than-human learning model, which will mean that the analysis has the potential to be generative as well as descriptive.

HYPOTHETICAL CASE STUDY EXAMPLE

Exploring learning in outdoor, more-than-human environments



CASE OVERVIEW

This hypothetical case study illustrates how data from different methods come together to provide a holistic understanding of a young person's learning experience within Digging Deep sessions.

PARTICIPANT PROFILE



Name: Jamie (pseudonym)
Age: 14
School Context: Alternative provision
Engagement in school: Low attendance, limited participation, struggles with classroom environments.

METHODS USED



Narrative enquiry: Informal conversations before, during and after sessions.



Participant observation: Field notes on behaviour, interactions and engagement.



Reflective practice: Researcher reflections after each session.

Quantitative data: Attendance records and emoji feedback.

DATA EXAMPLES



1. Attendance Data

Week	Attended
1	✓
2	✓
3	✗
4	✓
5	✓
6	✓
7	✓
8	✓

Pattern: Jamie attended 7 out of 8 sessions, showing improved consistency compared to school attendance.

2. Emoji Feedback (How did you feel today?)



Week	Emoji Choice
1	😞
2	😐
3	😞
4	😊
5	😊
6	😊
7	😊
8	😊

Trend: Over time, Jamie's responses moved from unsure/down to positive, suggesting growing enjoyment, confidence and connection.

3. Narrative Example (Conversation extract)

"I don't usually like school. It's just boring and noisy. Out here it's different. I can actually think, and I like building stuff. When the fire's going and we're all working together, it just feels calm."

Jamie described feeling more focused, calm and involved outdoors. He connected positive feelings to hands-on tasks, nature and working with others.

4. Observation Example (Field notes extract)

Jamie arrived quietly and did not speak for the first 20 minutes. He then joined a group building a raised bed. Helped measure, suggested an idea and laughed with others. Seemed proud when the group finished.

Jamie initially observed from the side but gradually engaged. He showed increased confidence, collaboration and pride in his contribution.

THEMATIC ANALYSIS (Reflexive Thematic Approach)

Theme	Evidence from Data
1. Growing Engagement	Attendance improved, emoji responses became more positive, joined in activities.
2. Connection with Others	Narratives and observations showed increased interaction and teamwork.
3. Calmer, More Focused Mindset	Jamie described feeling calmer and able to think more clearly outdoors.
4. Value of Hands-on, Practical Tasks	Enjoyment linked to building, fire, tools and tangible activities.
5. Influence of Environment	Nature, space and outdoor setting supported Jamie's participation.

Themes show how learning emerged through the relationship between Jamie, other people, activities and the environment.

SUMMARY OF CASE

Jamie's data across different methods show a consistent story: engagement increased over time, confidence grew, and outdoor experiences supported a shift in mindset and participation. Quantitative data (attendance and emoji feedback) highlighted patterns of change, while narrative, observation and reflection explained why these changes occurred.

KEY INSIGHTS

- Outdoor, more-than-human environments supported Jamie's sense of calm and focus.
- Practical, hands-on activities helped build confidence and motivation.
- Positive relationships and shared tasks encouraged participation.
- Change was gradual and relational, not immediate.
- Multiple methods provided a richer, more complete understanding than any one method alone.



This case study demonstrates how different forms of data, when analysed thematically, work together to capture the complexity of learning in outdoor, more-than-human environments.



Figure 2. Hypothetical case study example. Created by author using ChatGPT (OpenAI), 2026

Focus Groups

Stakeholder focus groups are intended to be organised on a quarterly basis to give the opportunity to gather the perspectives of those with vested interests in the development and wellbeing of the young people that we work with. Participants will include adults connected to Digging Deep, so our own staff, school educators, support workers, SENCOs, parents, local authorities and referring professionals.

The focus groups are intended to help me explore the wider understandings and experiences of disengagement, participation, wellbeing and the opinions on differences between mainstream and outdoor learning environments. Group discussion will also provided a space for shared and honest reflection on how Digging Deep is performing and how we may support the young people better.

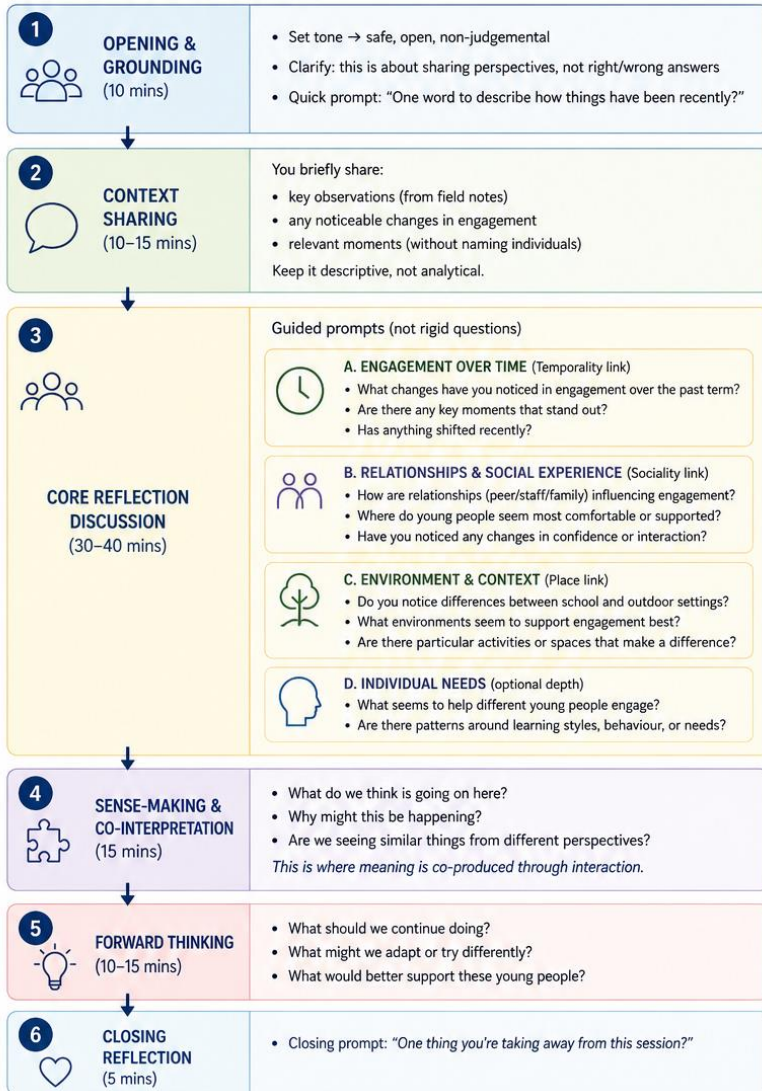
Focus groups are conducted to encourage open discussion and gain a wider context for both narrative purposes and also the development of the design response, which will be guided by the feedback obtained in these sessions.

FOCUS GROUP STRUCTURE

Quarterly Stakeholder Reflection Sessions

PURPOSE: To create a shared space for parents, school staff and facilitators to reflect on young people's experiences across contexts, and to inform the ongoing development of the programme.

SESSION STRUCTURE (60–90 mins)



WHO ATTENDS

- Parents / Carers
- School Staff (teachers, SENCOs, pastoral leads)
- Programme Facilitators
- Young People (optional)

HOW DATA IS CAPTURED

- Brief written notes
- Key themes and moments of agreement or tension
- Reflective notes afterwards (researcher interpretation)

HOW IT FEEDS INTO THE STUDY



THE ONGOING CYCLE



Pedagogy develops through collaboration, reflection and responsiveness to people and place.

Figure 4. Focus group structure resource. Created by author using ChatGPT (OpenAI), 2026

Ethical Considerations

Working with young people who are disengaged from education has raised several ethical considerations. I feel that informed consent is essential, ensuring that participants understand the purpose of the research and their right to withdraw at any time.

Given the informal and relational nature of interactions within outdoor learning environments, this requires ongoing communication and affirmation, rather than it being a one-off agreement process.

Confidentiality and anonymity are also extremely important, particularly when discussing experiences of mental health and wellbeing. Care must be taken to ensure that individuals cannot be identified within the research.

The study is conducted in line with Digging Deep CIC's safeguarding procedures and wider safeguarding responsibilities when working with children and vulnerable young people. This includes maintaining appropriate professional boundaries, recognising and responding to safeguarding concerns and following organisational procedures relating to disclosure, reporting and participant welfare (CIC, 2025).

The dual role as practitioner and researcher could potentially introduce power dynamics. Participants may feel obliged to engage due to existing relationships and rapport, this must be carefully managed. Efforts are to be made to ensure that participation remains voluntary and that young people feel comfortable choosing not to engage.

Finally, there is an ethical responsibility to represent participants' experiences accurately and respectfully. This includes avoiding narratives that position young people as the problem, perhaps more helpfully instead recognising the wider structural and relational factors that shape their experiences of education.

Limitations

This study has a few limitations that need to be acknowledged. The research is based within one outdoor learning setting and focuses on a relatively small group of young people, so the findings are not intended to represent all learners or educational settings.

My role as both practitioner and researcher may also influence the way experiences are observed and interpreted. While reflective practice and different forms of data are used throughout my study, the research is still shaped by my own involvement within the setting.

Attendance data and emoji feedback helped provide insight into participation and emotional engagement, but these methods cannot fully reflect the complexity of young people's experiences.

The outdoor environment itself also presents challenges for research. Sessions are often unpredictable and change depending on weather, group dynamics, activities and the complex needs of the young people involved, meaning not every interaction or learning experience can be fully captured.

It is also important to recognise that outdoor learning should not be viewed solely as a response for disengaged learners or alternative provision. Outdoor environments may better support some young people experiencing school distress but academically successful pupils may also benefit from experiential and outdoor approaches through improved wellbeing and reduced academic pressure. Restricting outdoor learning primarily to intervention contexts risks positioning it as remedial rather than recognising its wider educational value for all learners.

Synthesis

Across the literature, several key ideas begin to connect. Outdoor learning and *friluftsliv* offer a different way of thinking about education. Despite the growing evidence around wellbeing, these approaches still sit on the edge of mainstream secondary education and are not yet embedded within it.

What becomes clear is that the issue is not necessarily a lack of evidence supporting outdoor learning, but the difficulty of fitting it into archaic systems that are largely built around structure and standardization, with teachers working long hours, whose time is already enormously overstretched. Although outdoor learning often works differently, it is shaped by the weather and the unpredictability of everyday experience, making it extremely difficult to implement within traditional educational models.

More-than-human perspectives push this even further by challenging the idea that learning only happens through direct instruction or within the classroom. This way of thinking is particularly relevant within this practice, where engagement often appears through small moments of connection that would be difficult to measure through traditional approaches.

This study moves beyond asking whether outdoor learning “works” and instead explores how learning itself changes when it is relocated. Bringing these different ideas together provides the foundation for both the methodology and the development of the more-than-human learning model.

More-than-human learning model

Design Aim

The central aim of the design is:

To develop a more-than-human learning model that supports engagement for secondary school pupils who struggle within traditional classroom environments.

This shifts the focus away from adapting the learner to fit the system and instead considers how the system itself might be reconfigured to better support different ways of learning.

Design Principles

The development of the model is guided by a set of key principles, each of which emerges from the literature and the research context.



Figure 5. Learning model diagram. Created by author using ChatGPT (OpenAI), 2026

1. Learning as Relational

Drawing on more-than-human perspectives, the model understands learning as something that emerges rather than being delivered (Pleasants and Stewart, 2020).

In practice, this is reflected in the way young people at Digging Deep engage with tasks. Learning is embedded within these interactions.

2. Learning as Embodied and Experiential

Friluftsliv emphasises the importance of experience in learning (Gurholt, 2014).

Within the model, learning is grounded in doing. Activities are designed to be practical, sensory and physically engaging - allowing young people to learn through participation rather than observation alone.

3. Environment as Active Participant

A key aspect of the model is the recognition of the environment as an active part of the learning process, it is understood as shaping how learning takes place.

This includes all factors which influence how activities unfold. For example, working outdoors requires adaptation to changing conditions, encouraging problem-solving and flexibility (Pleasants and Stewart, 2020).

4. Flexibility and Responsiveness

In contrast to traditional schooling, our sessions evolve around what is happening and needed on site in the moment. The design model allows us to adapt to changes in weather or group dynamics.

5. Valuing Different Forms of Knowledge

The model also challenges the prioritisation of academic results as a measure of knowledge and success. Instead, practical skills, social interaction, emotional development and environmental awareness are recognised as vital components within the learning process.

Facilitation

The role of the adult shifts from instructor to facilitator. Rather than delivering content, the facilitator supports and guides learning as it emerges. This includes responding to the needs of the group, encouraging participation and helping to make connections between experiences and understanding.

Research-Informed Design

A key aspect of this enquiry is the integration of research and design. The model is not developed in isolation but is informed by the data and insights generated through the research process.

CONCLUSION

This research proposal sets out to explore the potential of outdoor, more-than-human learning environments as an alternative approach for secondary school pupils who are disengaged from mainstream education. Drawing on literature surrounding outdoor education, friluftsliv, neurodivergence, experiential learning and more-than-human theory, the study proposes that learning is shaped not only by teaching methods, but also by relationships between our learner and the environment through lived experience.

The literature highlights growing concerns surrounding youth disengagement, mental health and school distress, particularly amongst neurodivergent young people. At the same time, evidence suggests that outdoor and experiential learning approaches can support engagement, wellbeing, confidence and participation in ways that are often difficult to achieve within traditional classroom environments. Despite this, outdoor learning remains inconsistently embedded within UK secondary education and is still frequently positioned as an additional activity rather than a core part of learning.

The proposed research aims to explore how learning changes when it is relocated into outdoor environments and understood through a more-than-human framework. Rather than focusing purely on measurable educational outcomes, the study seeks to examine the embodiment of learning and the relational aspects of engagement that are frequently overlooked.

The development of the more-than-human learning model forms a key outcome of this enquiry. The model proposes a more flexible and responsive approach to learning that values diversity through participation. While the model is grounded within practice at Digging Deep CIC, there is potential for this approach to inform wider discussions around alternative outdoor provision and inclusive educational practice across the UK.

The proposal also highlights wider structural challenges involved in implementing alternative educational approaches. Although organisations such as Digging Deep provide important support for young people who struggle within mainstream settings, long-term provision is often limited by short-term and inconsistent funding. Greater recognition within government policy and curriculum frameworks are necessary if outdoor learning is to become more meaningfully embedded within education.

This could include:

- Stronger policy recognition of outdoor learning within the Curriculum for Wales.
- Greater expectations around experiential learning within Estyn inspections.
- Direct government funding to support alternative educational provision.

Future development of the project could extend beyond educational sessions alone and include opportunities for practical work experience and enterprise for community engagement. Potential developments such as an onsite café using food grown on the land and a small farm shop selling plants and handmade products - providing opportunity for apprenticeships in areas such as customer service, food preparation, business administration and construction – an infrastructure that has the potential to provide meaningful real-world learning opportunities for young people. These developments would also strengthen community connection and support pathways into employment and further education. However, the development of opportunities such as these would require sustained funding and long-term investment.

The proposal also contributes to wider conversations surrounding neurodivergence and education. Rather than viewing neurodivergence through a deficit-based lens, this study supports approaches that recognise difference as valuable and important. More inclusive learning environments may create greater opportunities for neurodivergent young people to participate and develop confidence to engage in ways that align more closely with their strengths and ways of experiencing the world.

On a personal level, this research is deeply meaningful, the themes explored throughout this study are closely connected to my own experiences. Being able to contribute towards research and practice that may help young people feel supported and valued within education is a significant motivation behind this enquiry.

Overall, this proposal argues that addressing youth disengagement may require broader changes in how learning environments are designed and a re-evaluation of what type of learning is valued and supported. The study therefore contributes to ongoing discussions around education and neurodivergence pushing for more inclusive approaches to learning and proposes a more environmentally connected model of education for future exploration.

Works Cited

- AERA, 2009. *Standards for reporting on humanities-oriented research in AERA publications*, s.l.: American Educational Research Association.
- Away, L., n.d. *On learner engagement*. [Online]
Available at: <https://www.learningaway.org.uk/impact/on-learner-engagement/>
[Accessed 7 March 2026].
- Backman, E., 2007. What is valued in friluftsliv within PE teacher education?—Swedish PE teacher educators' thoughts about friluftsliv analysed through the perspective of Pierre Bourdieu. *Taylor & Francis*.
- Barad, K., 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. s.l.:Duke University Press.
- Beames, S., 2012. *Learning Outside the Classroom: Theory and Guidelines for Practice*. s.l.:Routledge.
- Business, E., 2025. *One in four pupils disengage from school in year 7*. [Online]
Available at: <https://educationbusinessuk.net/news/20052025/one-four-pupils-disengage-school-year-7>
[Accessed 7 March 2026].
- Chawla, L., 2015. Benefits of Nature Contact for Children. *Sage Journals*, 30(4).
- Cree, J., n.d. *www.forestschoollassociation.org*. [Online]
Available at: <https://forestschoollassociation.org/history-of-forest-school/>
[Accessed 22 March 2026].
- D.J Clandinin, F. C., 2000. *Narative Inquiry - Experience and Story in Qualitative Research*. San Fransisco: Jossey-Bass.
- Dillon, J., 2006. The value of outdoor learning: evidence from research in the UK and elsewhere. *School Science Review*, pp. 107-110.
- Dr Ian Thomas, P. P. M., 2025. *Disengagement from school among pupils experiencing homelessness in Wales*, s.l.: ADR Wales.
- Education, F. N. A. f., 2014. *www.opf.fi*. [Online]
Available at: <https://www.opf.fi/en/education-and-qualifications/national-core-curriculum-primary-and-lower-secondary-basic-education>
[Accessed 22 March 2016].
- England, N., 2016. *Natural Connections Demonstration Project, 2012-2016: Final Report and Analysis of the Key Evaluation Questions (NECR215)*. [Online]
Available at: <https://publications.naturalengland.org.uk/publication/6636651036540928>
[Accessed March 2026].
- England, N., 2023. *www.england.nhs.uk*. [Online]
Available at: <https://www.england.nhs.uk/2023/11/one-in-five-children-and-young-people-had-a-probable-mental-disorder-in-2023/>
[Accessed 22 March 2026].
- England, N., 2023. *www.gov.uk*. [Online]
Available at: <https://www.gov.uk/government/news/englands-largest-outdoor-learning-project-reveals-children-more-motivated-to-learn-when-outside>
[Accessed 22 March 2026].
- England, N., 2026. *www.naturalenglan.org.uk*. [Online]
Available at: <https://publications.naturalengland.org.uk/publication/5520022657826816>
[Accessed 24 March 2026].
- Estyn, 2018. *Inspection report Pontarddulais 2018*, s.l.: Welsh Government.
- Estyn, 2019. *Inspection report Birchgrove Comprehensive School 2019*, s.l.: Welsh Government.
- Estyn, 2020. *Inspection report Pentrehafod School 2020*, s.l.: Welsh Government.
- Estyn, 2020. *www.estyn.gov.wales/*. [Online]
Available at: <https://www.estyn.gov.wales/system/files/2022-01/Env%20Report%202019-2020%20%28inc%20biodiversity%29%20Oct%202020.pdf>
- Estyn, 2021. *Inspection report Penyrheol Comprehensive School 2021*, s.l.: Welsh Government.
- Estyn, 2023. *Inspection report Bishop Gore School 2023*, s.l.: Welsh Government.
- Estyn, 2023. *Inspection report Cefn Hengoed Community School 2023*, s.l.: Welsh Government.
- Estyn, 2024. *Inspection report Dylan Thomas Community School 2024*, s.l.: Welsh Government.

Estyn, 2024. *Inspection report Morriston Comprehensive School 2024*, s.l.: Welsh Government.

Estyn, 2025. *Inspection report Bishopston Comprehensive School 2025*, s.l.: Welsh Government.

Estyn, 2025. *Inspection report Gowerton School 2025*, s.l.: Welsh Government.

Estyn, 2025. *Inspection report Olchfa School*, s.l.: Welsh Government.

Government, W., 2022. *Curriculum for Wales from September 2022*. [Online]
Available at: <https://hwb.gov.wales/api/storage/18d0d2f1-0563-4945-a889-d1548ae24c4e/curriculum-for-wales-guidance.pdf>

Government, W., 2025. *Young people not in education, employment or training (NEET): October 2024 to September 2025*. [Online]
Available at: <https://www.gov.wales/young-people-not-education-employment-or-training-neet-october-2024-september-2025-html>
[Accessed 7 March 2026].

Gurholt, K., 2014. Joy of nature, friluftsliv education and self: combining narrative and cultural–ecological approaches to environmental sustainability. *ResearchGate*.

Humberstone, B. & Prince, H., 2020. *Research Methods in Outdoor Studies*. s.l.:Oxon Abingdon.

Institute, E. P., 2021. *www.epi.org.uk*. [Online]
Available at: <https://epi.org.uk/publications-and-research/pupil-wellbeing-in-essex/>
[Accessed 22 March 2026].

Jason Davies, M. M. J. B. K. D. H. Y., 2020. Using engagement in sustainable construction to improve mental health and social connection in disadvantaged and hard to reach groups: a new green care approach. *Journal of Mental Health*, 10 February.

Jeff Mann, T. G. S. T. E. B., 2022. Getting Out of the Classroom and Into Nature: A Systematic Review of Nature-Specific Outdoor Learning on School Children's Learning and Development. *Frontiers of Psychology*, Volume 10.

Joan James, T. W., 2017. School-Based Experiential Outdoor Education: A Neglected Necessity. *Research gate*, 40(1).

Karen Bathgate, J. B., 2013. *Identifying Young People at Risk of becoming 'Not in Employment, Education or Training'*. [Online]
Available at: <https://www.gov.wales/sites/default/files/statistics-and-research/2019-07/131001-identifying-young-people-risk-becoming-not-employment-education-training-en.pdf>
[Accessed 7 March 2026].

Katie Gibbs, Z. F. K. D. A. H. K., 2025. Constructing the conditions for wellbeing: A qualitative evaluation of group-based ecotherapy for adults living with acquired brain injury. *Neuropsychological Rehabilitation An International Journal*.

Kim, J.-H., 2016. *Understading Narrative Inquiry*. s.l.:SAGE.

Kolb, D. A., Boyatzis, R. E. & Mainemelis, C., 1999. Experiential Learning Theory: Previous Research and New Directions. *Perspectives on cognitive, learning, and thinking styles*.

Kong, Y., 2021. The Role of Experiential Learning on Students' Motivation and Classroom Engagement. *Frontiers in Phychology*.

Lives, C. f. Y., 2025. *NEW RESEARCH REVEALS POSITIVE LINK BETWEEN ENRICHMENT AND TACKLING THE SCHOOL ATTENDANCE CRISIS*. [Online]
Available at: <https://www.centreforyounglives.org.uk/news-centre/new-research-reveals-positive-link-between-enrichment-and-tackling-the-school-attendance-crisis>
[Accessed March 2026].

Lumber, R., 2017. Beyond knowing nature: Contact, emotion, compassion, meaning, and beauty are pathways to nature connection. *Plos One*.

Mark Rickinson, J. D. K. T. M. M. Y. C. D. S. P. B., 2004. A Review of Research on Outdoor Learning. *National Foundation for Educational Research and King's College London*.

Minds, Y., n.d. *www.youngminds.org.uk*. [Online]
Available at: <https://www.youngminds.org.uk/about-us/media-centre/mental-health-statistics/>
[Accessed 22 March 2026].

OECD, 2017. *www.oecd.org*. [Online]
Available at: <https://www.oecd.org/en/about/programmes/centre-for-educational-research-and-innovation-ceri.html>
[Accessed 22 March 2026].

Pleasant, K. & Stewart, A., 2020. Entangled philosophical and methodological dimensions of research in outdoor studies?. In: *Research Methods in Outdoor Studies*. s.l.:Routledge.

Remmen, K. B. & Iversen, E., 2022. A scoping review of research on school-based outdoor education in the Nordic countries. *Taylor & Francis*, pp. 433-451.

Research, N. M. o. E. a., 2020. *www.udir.no*. [Online]
Available at: <https://www.udir.no/lk20/overordnet-del/?lang=eng>
[Accessed 22 March 2026].

Rodriguez-Morales, L., 2024. Friluftsliv as practice, culture and brand. *Taylor & Francis*.

Sue Waite, M. B. P. B., 2014. Comparing apples and pears?: a conceptual framework for understanding forms of outdoor learning through comparison of English Forest Schools and Danish udeskole. *Taylor and Francis Online*, pp. 868-892.

