

**Title: Exploring the Theoretical Foundations of Forest School Pedagogy:
Autonomy, Risk and Social Constructivism in an English Context.**

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Abbreviations

Forest School (FS)

Forest School Association (FSA)

Outdoor Education (OE)

Outdoor Environmental Education (OEE)

Outdoor learning (OL)

Social, Emotional and Mental Health (SEMH)

Abstract

This thesis presents my original contribution to Forest School (FS) research through a PhD by Published Work, advancing both the theoretical and methodological understanding of FS as an educational practice. Rooted in the Scandinavian tradition of *Friluftsliv*, FS promotes sustained connections with nature, yet in the English context it remains ambiguously defined and often conflated with other outdoor learning forms. Building on the six principles of the Forest School Association (2011), my research critically interrogates FS as a socially, politically and culturally constructed practice.

Drawing on social constructivism, play pedagogy, early childhood education theories and critical frameworks including Foucauldian concepts of power, surveillance and disciplinary space, I conceptualise FS as more than a neutral, liberatory alternative to mainstream schooling. I integrate Lefebvre's production of space, Massey's spatial multiplicity and Beck's risk society alongside an evolving intersectional ecofeminist lens to theorise FS spaces as dynamic, relational and contested. This enables a re-framing of risk as a negotiated, co-constructed phenomenon that can foster agency, resilience and therapeutic engagement particularly for children with social, emotional and mental health (SEMH) needs rather than as a hazard to be minimised.

My core contribution is the Garden (2025) Forest School Space Model, which reconceptualises FS as a dynamic interplay of autonomy, risk and social interaction, shaped by intersecting power relations. This model challenges dominant narratives

that position outdoor spaces as inherently emancipatory, revealing how FS can both resist and reproduce normative educational hierarchies, including those related to gender, behaviour and inclusion.

Through a series of peer-reviewed publications (Garden, 2023a; 2023b; 2024), I provide empirical insights into how FS spaces are continually negotiated by children and educators, claiming, naming and reshaping micro-spaces of identity and belonging and how these interactions reflect wider socio-cultural discourses. My research advocates for a critically reflective, inclusive approach to FS, positioning it as an interdisciplinary field capable of fostering deeper engagement with issues of equity, wellbeing and sustainability in education.

Keywords: Forest School, outdoor learning, spatialisation, social constructivism, play pedagogy, risk, autonomy, ecofeminism, critical theory

List of Published Works

Peer-Reviewed Journal Articles / Book Chapters

1. Paper 1: Garden, A. and Downes, G. (2021) A systematic review of Forest Schools literature in England. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*. <https://doi.org/10.1080/03004279.2021.1971275>
2. Paper 2: Garden, A.S. (2021) UK Forest Schools as a space for risk for children with Social, Emotional and Mental Health (SEMH) Needs. In P. Wood (Ed.), *Policy, Provision and Practice for Special Educational Needs and Disability*. Routledge. November 2021. <https://doi.org/10.4324/9781003155034-12>
3. Paper 3: Garden, A. (2022a) The case for space in the co-construction of risk in UK Forest School. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*. <https://doi.org/10.1080/03004279.2022.2066148>
4. Paper 4: Garden, A. (2022b) An exploration of children's experiences of the use of digital technology in Forest Schools. *Journal of Adventure Education and Outdoor Learning*. <https://doi.org/10.1080/14729679.2022.2111693>
5. Paper 5: Garden, A. and Hirst, N. (2022) "Ikke skade treet": "Don't Harm the Tree". Narratives from a Norwegian Kindergarten. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*. <https://doi.org/10.1080/03004279.2022.2151318>
6. Paper 6: Garden, A. and Downes, G. (2023) New Boundaries, Undecided Roles: Towards an Understanding of Forest Schools as Constructed

Spaces. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*. DOI: [10.1080/03004279.2023.2170187](https://doi.org/10.1080/03004279.2023.2170187)

7. Paper 7: Garden, A. (2023a) Constructions of Space: Exploring Photographic Images in Forest School. *Prism: Casting New Light on Learning, Theory and Practice*. <https://openjournals.ljmu.ac.uk/index.php/prism/article/view/418>
8. Paper 8: Garden, A. (2023b) The University Forest School Space in England: Taking seminars outdoors for early years undergraduates. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*. <https://doi.org/10.1080/03004279.2023.2280720>
9. Paper 9: Garden, A. (2024) Foucault and Power: UK Forest School as a socially constructed space for early years teachers and Forest School leaders. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*. <https://doi.org/10.1080/03004279.2024.2404687>
10. Paper 10: Garden, A. (2025) Challenging Gender and Power Dynamics in Forest Schools: An Ecofeminist Perspective. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*. <https://doi.org/10.1080/03004279.2025.2483327>

Word count: 14,765 in total, 11,658 (excluding abstract and references).

1. Introduction

This document consolidates the primary arguments from my PhD by Published Work, showcasing my unique contribution to the field of Forest School (FS). FS is an outdoor educational approach that prioritises children's connection to nature, underpinned by principles and an ethos outlined by the Forest School Association (FSA), established in 2011. According to the FSA (2021), FS is a long-term, learner-centred process that involves regular sessions in natural environments, led by qualified practitioners, with the aim of fostering holistic development, resilience, confidence and wellbeing through play-based experiences in nature.

The introduction of FS to England by Bridgwater College in 1993, following a visit to Denmark, marked the beginning of a movement influenced by Scandinavian early years models (Garden and Downes, 2021). As FS has expanded, tensions have emerged, with practitioners attempting to balance curriculum demands while preserving its philosophy amid the pressures of performativity and marketisation (Morgan, 2018). My work (Garden, 2022a) critically examines these tensions, exploring how the core values of FS can be maintained in the face of contemporary educational expectations. Despite FS's increasing popularity, the term is often conflated with broader outdoor learning (OL), causing confusion in both research and practice (Garden and Downes, 2021). While FS is a form of outdoor education, it differs from more general outdoor learning, which may be curriculum-led, occasional or teacher-directed.

The introduction of FS to England arguably initiated a process of social construction, where early years professionals adapted outdoor learning to meet local needs (Knight et al., 2023). The values and principles that define FS reflect this relational

process of meaning-making. These principles, formalised through the FSA, offer a shared vision while allowing flexibility and ongoing dialogue. However, this flexibility demands a critical interrogation of the assumptions, values and ideologies embedded within various practices (Knight et al., 2023).

Importantly, FS operates within the wider context of English education, which has been shaped by neoliberal reforms since the late 20th century. Neoliberalism in education prioritises efficiency, competition, accountability and quantifiable outcomes, with schools subject to continual surveillance through mechanisms such as Ofsted inspections and league tables (Ball, 2018). This has produced a culture of performativity where teachers are expected to demonstrate measurable progress, often at the expense of broader, more holistic educational aims. These structural forces shape how FS is implemented in schools, often compelling practitioners to translate its affective, process-oriented ethos into forms that ‘fit’ institutional data frameworks.

My research explores how these neoliberal logics infiltrate FS practice. For example, in Paper 6 (*New Boundaries, Undecided Roles*), FS leaders described feeling pressure to reframe the emotional, relational and therapeutic aspects of their work into school-sanctioned language, such as presenting children’s improved emotional regulation as ‘behavioural progress’ or aligning open-ended play with literacy or numeracy targets. This constant need to justify FS in terms of institutional priorities creates a double bind, that is, while FS offers a space of resistance to dominant educational norms, its legitimacy often depends on adopting those very norms.

Similarly, in Paper 9, I draw on Foucault’s concept of governmentality to show how FS leaders are caught between resisting the neoliberal demand for measurable

productivity and performing accountability to secure funding, legitimacy, or continued access to school grounds. In some cases, this meant downplaying the therapeutic or relational dimensions of FS in official reporting, instead emphasising school readiness, attendance, or behaviour improvements; outcomes more easily aligned with neoliberal metrics.

This tension also appears in higher education contexts. In Paper 8, which explores university students' engagement with FS-style outdoor seminars, many participants initially expressed discomfort with the unstructured, reflective nature of the sessions, seeking measurable outputs and structured tasks that conformed to conventional academic expectations. This illustrates the deep internalisation of neoliberal educational values not just among policymakers and practitioners but among students themselves where 'rigour' is equated with standardisation, productivity and visible outcomes.

The confusion between FS and other forms of outdoor learning also risks diluting its pedagogical identity (FSA, 2021), complicating efforts to research and evaluate its specific impacts. Leather (2018) points out that the rapid growth of FS in England has often prioritised pragmatic concerns over conceptual understanding. As a result, practitioners sometimes replicate the activities associated with FS without engaging with its theoretical foundations (Leather, 2018), which risks undermining its true purpose.

FS delivery is increasing in English primary schools and in the current financial climate, many schools are opting to train existing staff as FS leaders rather than hiring external providers, allowing FS to be delivered within the school itself (Whincup, Allin and Greer, 2021). Teachers training to become FS leaders must

adopt alternative pedagogies and new ways of learning based on FS principles. However, integrating FS principles into the neoliberal policy context of English primary schools often presents significant challenges, especially given potential clashes between expectations, pedagogies and values during training and in practice (Kemp, 2020; Waite and Goodenough, 2018).

Across my work, I argue that FS occupies a liminal space both pedagogically and politically. It offers an alternative, even subversive, way of thinking about education, disrupting dominant logics of speed, measurement and performativity, but it also exists on the margins of formal schooling and is continually under pressure to conform. This ambivalence is part of what makes FS powerful, but also precarious.

1.1 Coherence and Significance

My research critically examines how Forest School (FS) is defined, practised and distinguished from other forms of outdoor learning, particularly in England, where its uptake has been enthusiastic yet inconsistent (Tiplady and Menter, 2020). As FS has expanded, its implementation has varied significantly. For example, many schools offer short-term six-week programmes, which often fail to align with the long-term, learner-centred model intended. This has led some researchers to express concerns about the rapid growth of FS and the potential dilution of its practices (McCree, 2019; Sackville-Ford, 2019).

Teachers assuming FS leadership roles may face the challenge of re-contextualising their pedagogical practices to meet competing demands, which can sometimes diminish the quality of the rich, experiential learning that FS aims to provide (Whincup, Allin and Greer, 2021). For example, while schools and teachers tend to be risk-averse, FS embraces risk as an essential element of the learning process,

encouraging children to recognise and manage risks (Harris, 2017; Kemp, 2020).

Teachers trained as FS leaders may struggle to transition from a traditional, teacher-led approach to one that promotes greater student autonomy, allowing children to take ownership of their learning and exercise more freedom of choice (Harris, 2017; Waite, Bølling and Bentsen, 2016).

1.2 Context

My background as both a senior lecturer in higher education and a qualified Forest School leader fundamentally shaped my research perspective, enabling me to bridge academic inquiry with professional practice. This dual role enriched my understanding of Forest School (FS) as both a socially constructed educational space and a lived, embodied practice, providing insight into its theoretical, pedagogical and experiential dimensions.

Throughout the research journey, I was transparent about my positionality, recognising that my insider status brought both strengths and tensions. I did not aim for detached objectivity; instead, I embraced a constructionist epistemology, acknowledging that knowledge is situated, co-constructed and shaped by my interactions with participants and contexts. My practitioner-researcher identity afforded me access to Forest School settings and relational trust with children, families and practitioners, but it also required reflexive awareness of my positional power and how my presence influenced the field.

Over time, I became increasingly reflexive about this dual role. My work evolved from exploring Forest School as 'experienced space' (e.g., through interviews and observations in Paper 2) to interrogating it as 'curated and consumed space' (e.g.,

through visual and discourse analysis in Paper 7). In this sense, my positionality became an analytical tool so that the tensions I experienced between leading, observing and interpreting helped illuminate how Forest School is discursively framed as a site of risk, freedom and ‘natural’ learning. This was particularly evident in Paper 7, where I used participatory visual methods to examine how photographs, promotional materials and participant-generated images construct narratives about what belongs in Forest School spaces.

1.3 Thesis Structure

My PhD by Published Work consists of a collection of peer-reviewed publications produced between 2021 and 2025, which explore the spatial, relational and power-laden dimensions of Forest School (FS) practice. This body of work applies spatialised, socially constructivist and critically reflexive perspectives to the FS context, investigating how these dimensions shape the pedagogical approach and outcomes in outdoor learning environments. The collection builds on the abstract theoretical positions I first established in my systematic literature review (Garden and Downes, 2021), where I identified the importance of spatialisation and context in FS research. In the literature review (Garden and Downes, 2021), I also noted that broader theorisations of outdoor learning, particularly those relating to space, are infrequently utilised within the FS literature (Cumming and Nash, 2015; Harris, 2018; and Mycock, 2019).

In my first paper (Garden and Downes, 2021), I systematically review a decade of FS research, identifying key theoretical frameworks, methodologies and opportunities for development within the field. Despite FS’s relatively recent establishment in England, much of the research remains theoretically

underdeveloped. Applying the Evidence for Policy and Practice Information Centre (EPPI-Centre) framework, the review positions FS within three central areas, that is, early years, special educational needs and disability (SEND) and formal education while exploring themes relating to FS spaces and the diversity of its practices. Rather than imposing a fixed definition of FS, the review outlines its characteristic features, situating it within the wider outdoor learning landscape.

My second publication (Garden, 2021) considers FS as both a physical and emotional space, offering particular benefits for children with social, emotional and mental health (SEMH) needs. Drawing on my experience as an FS leader and research with SEMH pupils in mainstream education, this chapter demonstrates how FS nurtures confidence, resilience and emotional expression within a safe, flexible environment. It critiques the absence of formal structure in FS, suggesting that this openness strengthens children's relationships with nature and their peers, while underscoring the importance of contextualising risk within FS practice.

In my third paper (Garden, 2022a), I examine the theoretical framing of FS in England, building on Harper's (2017) work on Canadian FS and risky outdoor play. I argue that FS offers a valuable counterpoint to an increasingly risk-averse society by promoting healthy childhood development through child-led ownership of outdoor spaces and engagement with risk. This paper challenges prevailing cultural perceptions of risk, advocating for a redefined FS pedagogy that integrates sustainability within outdoor learning.

My fourth paper (Garden, 2022b) addresses the increasing presence of digital technology in childhood through an investigation into the use of tablet devices in FS settings. Using semi-structured interviews with 32 Key Stage 2 pupils, the study

reveals that, when thoughtfully integrated, tablet devices can enrich FS practice by enhancing children's engagement with the natural world. The research calls for further exploration of the relationship between space, place and technology in outdoor learning contexts.

In my fifth publication (Garden and Hirst, 2022), I explore the international growth of outdoor pedagogies, focusing on Scandinavian approaches through an ethnographic study of preschool children in Oslo allotments. The paper highlights how outdoor spaces, shaped by child-led interactions, can support holistic child development. It proposes new perspectives for FS and outdoor learning, imagining environments where children engage with both human and non-human nature in creative, collaborative ways.

My sixth paper (Garden and Downes, 2023) revisits FS's emergence in England, foregrounding the creation of hybrid learning environments through the interaction of classroom and FS spaces. It conceptualises space as relationally produced, with children actively shaping and 'owning' the FS environment. This study contributes to a deeper understanding of how educational spaces are constructed, negotiated and contested.

In my seventh publication (Garden, 2023a), I extend my earlier work on digital technology in FS by conducting a follow-up study with the same cohort of children. Focusing on their emotional responses to photographs taken within the FS environment, themes such as 'play with technology' and 'place attachment' are shown to align with FS principles, suggesting that digital tools can be meaningfully integrated to promote collaboration and peer relationships.

My eighth paper (Garden, 2023b) investigates the multidimensional character of outdoor spaces, shaped by cultural practices and social interactions. Through research with 25 early years undergraduates, this study illustrates how outdoor spaces can offer new educational possibilities beyond the constraints of formal classrooms, fostering creativity, collaboration and the disruption of cultural boundaries.

In my ninth paper (Garden, 2024), I examine power dynamics between early years teachers and FS leaders, applying Foucauldian theory to interrogate socio-cultural relations within FS settings. Drawing on data from four participants over a year of FS sessions, this study reveals the complexities educators face in negotiating power relations and highlights the potential for deeper critical engagement with these dynamics in outdoor education.

My tenth paper (Garden, 2025) extends this analysis through a critical ecofeminist and Foucauldian lens, exploring gender performativity within FS practice. This study advocates for the development of gender-aware, sustainable outdoor pedagogies that challenge traditional norms and support inclusive, transformative approaches to curriculum design and educator training.

2. Literature Review

2.1 Background

To deepen this exploration of FS's conceptual underpinnings, it is useful to consider its association with wider cultural philosophies, notably the Scandinavian tradition of *Friluftsliv*. A central theoretical component of FS is its association with the Scandinavian concept of *Friluftsliv* (open-air life) (Gelter, 2020), promoting outdoor

living and a deep, relational connection to nature (Principle 2, FSA, 2011). However, England's appropriation of *Friluftsliv* (open-air life) has been critiqued for losing its cultural specificity and becoming instrumentalised within structured educational frameworks (Waite and Goodenough, 2018; Knight et al., 2023). While *Friluftsliv* privileges unstructured, reflective and often solitary immersion in nature (Gelter, 2000), FS practices in England are frequently bound by formal curriculum agendas and safeguarding protocols (Mycock, 2019), raising questions about the authenticity and integrity of its pedagogical claims.

These tensions reflect broader debates around the cultural transferability of pedagogical philosophies (Cree and Robb, 2021) and the risks of decontextualising nature-based practices from their socio-cultural origins. Although FS aspires to promote pro-social and pro-nature behaviours (Cree and Robb, 2021), without critical reflection there is a danger that it may reproduce normative educational structures rather than offering a genuinely alternative space. Researchers such as Coates and Pimlott-Wilson (2019) argue for preserving the unstructured, child-led ethos central to *Friluftsliv*, suggesting that FS in England must navigate the tensions between cultural adaptation and fidelity to its theoretical roots. This invites a more critical interrogation of how FS constructs outdoor space as both a physical and socio-cultural site, aligning with Foucauldian concerns about how space is regulated and normalised within institutional settings (Foucault, 1986).

To clarify the intended pedagogical framework of FS, it is important to consider the six principles outlined by the FSA (2011), which form the foundation of FS practice and serve as a framework for evaluating FS sessions. These principles include:

1. FS is a long-term process, involving frequent and regular sessions in a natural environment.
2. FS takes place in a woodland or natural wooded setting to support learners' relationship with the natural world.
3. FS promotes holistic development, fostering resilient, confident, independent and creative learners.
4. FS provides learners with opportunities to take supported risks appropriate to the environment and themselves.
5. FS is run by qualified practitioners who continually develop their professional practice.
6. FS utilises learner-centred processes to create a community for learning and development.

Although FS is frequently associated with outdoor education in England, confusion persists, particularly in primary schools serving children aged 4 to 11. It is crucial to recognise that FS is a pedagogical approach rather than a prescriptive programme or curriculum (Harris, 2023; Garden, 2023). FS integrates outdoor environments to enhance the curriculum, encouraging child-centred, experiential learning. This nuanced understanding is essential for clarifying its application, as FS purports to be adaptable and implemented differently across schools (Knight et al., 2023).

FS has become an influential pedagogical approach in early years education, providing a distinct alternative to traditional classroom-based teaching. As Garden and Downes (2021) argue, its impact is especially significant in early childhood settings, where FS was first developed and where outdoor, experiential learning environments play a formative role in shaping educational experiences. This

framework positions FS within the broader educational landscape, highlighting its relevance not only to early years provision but also to special educational needs and disabilities (SEND) and formal education frameworks (see Figure 1):

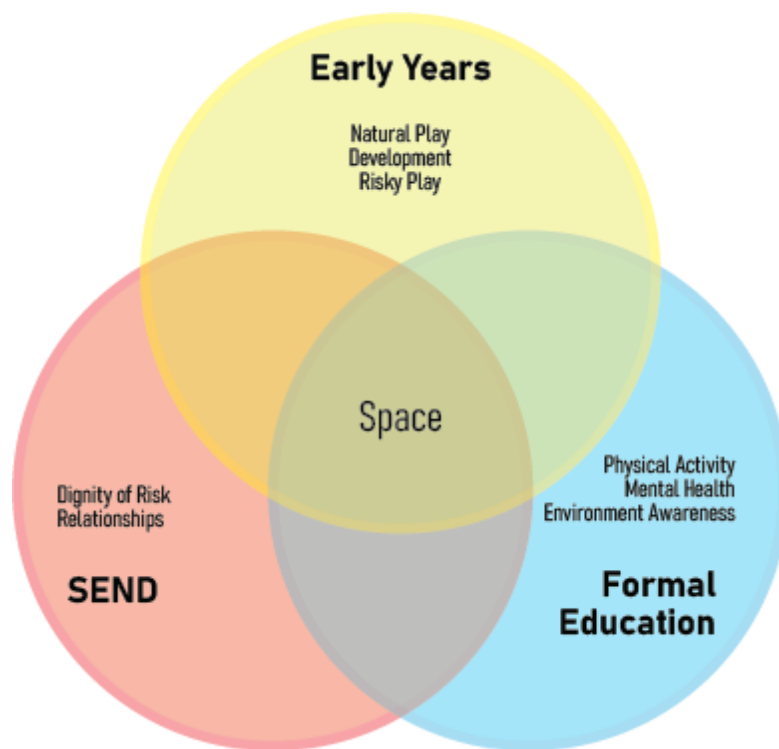


Figure 1: Garden and Downes Forest School Conceptual Space (Garden and Downes, 2021)

This conceptual positioning underscores FS's capacity to foster cognitive, emotional and social development through unstructured play and nature-based experiences (Coates and Pimlott-Wilson, 2019). As FS extends beyond early childhood, it demands a more robust theoretical foundation (Knight et al., 2023). Practitioners must increasingly understand how natural environments shape learning and

incorporate these insights into pedagogical designs that meet diverse developmental needs. In contrast to more structured outdoor learning models, FS encourages learners to engage with the environment on their own terms, promoting autonomy, problem-solving and creativity. This fluid approach is integral to FS, allowing children to form their own connections with nature and fostering a sustainable relationship with the environment (Harris, 2015). However, for FS to be effectively integrated into primary schools, educators must be equipped with the knowledge and skills to adapt the approach within the English educational context, ensuring its success across diverse school environments (Garden and Downes, 2021). Despite increasing practitioner interest and adaptation efforts, FS remains notably under-theorised within the broader outdoor education literature (Leather, 2018).

A consistent critique centres on FS's under-theorisation within outdoor education research (Leather, 2018). Much of the existing literature comprises small-scale anecdotal studies which, while often illustrating positive outcomes, lack methodological consistency and critical interrogation of the underpinning pedagogical assumptions (Murphy, 2020). Leather (2018) questions the validity of claims that FS increases self-esteem and self-confidence, highlighting that such conclusions are frequently derived from surface-level observations of busy, engaged children without rigorous or systematic evaluation. Furthermore, research on FS tends to be constrained by practical and logistical challenges, leading to limited longitudinal evidence and a reliance on short-term case studies (Murphy, 2020). Harris (2017) similarly advocates for a shift towards long-term sustained studies involving diverse cohorts of children, noting the need to interrogate how FS impacts different groups over time. In response to these critiques, recent research has begun

to articulate a clearer theoretical rationale underpinning FS practices (Garden 2024; 2025).

While several studies have demonstrated positive outcomes associated with FS (Knight, 2013; Archard, 2015), only a limited number have sought to establish a coherent theoretical rationale for these outcomes (Harris, 2015; Waite and Goodenough, 2018; Coates and Pimlott-Wilson, 2019; Knight et al., 2023). FS has increasingly been understood as a socially constructed educational approach informed by social constructivist experiential learning theories. This pedagogical orientation is typically underpinned by two core components: play-pedagogy, which embraces experiential risk and creativity and biophilic interaction, reflecting an innate human tendency to connect with nature (Wilson, 1984). Drawing on Nordic *Friluftsliv* traditions and place attachment theory, Knight et al. (2023) contend that FS represents a valuable albeit inconsistently theorised pedagogical model. Nevertheless, significant conceptual and empirical challenges remain (Garden, 2024).

Knight et al. (2023) identify several areas requiring further development, including the growing diversity of FS applications across varied social and cultural contexts and the imperative for practitioners to adapt to an increasingly heterogeneous participant base. Concerns are also raised regarding the quality of FS delivery, particularly within schools and nurseries where pressures of formal curricula may compromise the child-led exploratory ethos central to FS. Additionally, Knight et al. advocate for more inclusive practices within the Outdoor Education (OE) workforce and a deeper examination of attachment theory's relevance to mental health and wellbeing within FS settings. Parallel to these theoretical debates, a growing body of

outcome-focused research has sought to quantify the benefits of FS participation (Tiplady and Menter, 2021).

The predominance of outcome-focused FS research, typically centred on participant benefits, has been consolidated through several recent systematic reviews (Dabaja, 2021; Garden and Downes, 2021; Knight et al., 2023; Sella et al., 2023). These reviews consistently report improvements in resilience, physical development, creativity, problem-solving and nature connectedness, particularly among early years and primary-aged children (Sella et al., 2023). FS has also been associated with increased physical activity (Trapasso et al., 2018), enhanced social responsibility and environmental awareness (Coates and Pimlott-Wilson, 2019) and improvements in motivation, concentration and co-operative skills (Coates and Pimlott-Wilson, 2019; Garden and Downes, 2023). While the majority of studies focus on younger cohorts, emerging evidence suggests that similar benefits extend to older children and vulnerable groups, for example, Knight (2013) and Archard (2015) report positive outcomes across age groups including emotional wellbeing and enhanced autonomy. Research addressing the needs of children with social, emotional and mental health (SEMH) difficulties suggests that FS can offer spaces for emotional expression and a sense of personal freedom (Tiplady and Menter, 2021; Garden, 2021). However, Tiplady and Menter (2021) caution that while FS may generate immediate positive outcomes for vulnerable children, the transferability and sustainability of these benefits beyond FS contexts remain under-researched.

2.2 Space and Power in FS

In the context of FS, space is not a static entity but a dynamic interplay of physical, social and cultural factors that continuously shape educational experiences. Kraftl

(2013) conceptualises space as an evolving construct, shaped by interactions between people, objects and the environment. This fluidity is particularly evident in FS, where the physical landscape intersects with the socio-cultural dynamics created by children and practitioners. Unlike traditional classrooms, often characterised by prescriptive environments, FS settings offer greater flexibility, fostering freedom for exploration and meaning making (Kraftl, 2014).

In addition to its physical dimensions, FS space is profoundly socio-cultural, influenced by the diverse identities, backgrounds and experiences of learners and educators. As my research (Garden, 2023) notes, the negotiation of space in FS is both physical and experiential, with meaning continually co-constructed through children's interactions with their surroundings and each other. This process facilitates diverse learning opportunities, ranging from collaborative play to independent exploration (Waite and Goodenough, 2018). I also further argue that this spatial flexibility underpins key FS pedagogical principles, promoting autonomy, critical thinking and creativity (Garden and Downes, 2021).

However, space in FS is not neutral. Power dynamics significantly shape how FS spaces are accessed, experienced and interpreted. Massey (2005) and Coates and Pimlott-Wilson (2019) illustrate how factors such as socio-economic background, race, class and gender can impact children's opportunities to participate in FS and influence the value attributed to those experiences. Waite (2013) extends this understanding through the concept of cultural density, which describes how educational spaces are saturated with dominant cultural norms and practices that shape expectations and behaviours, often in subtle ways. This resonates with Bourdieu's (1990) notion of *habitus*, where socialised norms and dispositions subtly

influence the ways individuals perceive, inhabit and act within particular spaces, including educational environments like FS. My own research (Garden, 2023; 2025) builds upon this, examining how power is enacted not only through access to FS provision but also through the spatial organisation and relational dynamics within FS settings. I illustrate how adult positioning, regulation of high-risk activities and the organisation of space can subtly reproduce or challenge existing power dynamics, even within outdoor environments often regarded as inclusive and equal (Garden, 2025).

FS pedagogy, while often positioned as learner-centred, also reflects broader social structures. A defining characteristic of FS claims to be its facilitative approach, where educators offer guidance rather than directive instruction. This supports children's agency and accommodates diverse identities (Garden and Downes, 2021).

Educators in FS act as scaffolds, enabling children to explore while maintaining safety and offering emotional support (Knight et al., 2023). Yet, as Harris (2023) notes, these interactions are situated within wider socio-cultural contexts that shape the nature and limits of autonomy in FS. In this sense, FS environments, while often regarded as 'low-density' cultural spaces due to their apparent openness and flexibility, nonetheless carry embedded cultural expectations about risk, behaviour and appropriate use of space (Waite, 2013).

My own research (Garden, 2024; 2025), reveals that mechanisms of regulation persist within FS, with children encouraged to self-manage behaviour and navigate risk within socially constructed boundaries. Drawing on Foucault's (1977:174) theory of disciplinary power, FS settings can be viewed as spaces of 'hierarchical observation', where adult facilitation both enables and constrains children's

experiences. Building on Maynard (2007) research, I explored how FS attempts to decentralise authority, promoting active participation and autonomy, while remaining entangled with broader educational and cultural power relations (Garden, 2024).

The adoption of poststructuralist frameworks, particularly Foucault's theory of power, provides valuable tools for interrogating how knowledge and authority circulate within FS. Foucault (1977) challenges hierarchical conceptions of power, instead framing it as diffused through everyday practices. FS environments offer visible examples of this, as children engage in risky play, test boundaries and negotiate norms (Maynard, 2007). My research (Garden, 2025) builds on this by demonstrating how power operates through spatial organisation, adult-child interactions and the structuring of experiences in FS, often reinforcing broader social norms in subtle but consequential ways. By incorporating Waite's (2013) notion of cultural density, this work highlights how even spaces perceived as liberating and open can remain dense with normative assumptions about behaviour, risk and learning, which shape both children's experiences and practitioners' actions.

2.3 The Social Construction of FS Practice and Pedagogy

Burr and Dick (2017) assert that knowledge and categories are created through language, cultural narratives and social interaction. Through this lens FS emerges not as a fixed educational model but as a dynamic, contested and politically situated practice, shaped by ongoing negotiation and contextual adaptation. As my research (Garden, 2022a; 2022b) demonstrates, FS diverges from other outdoor education models, particularly those rooted in structured or didactic paradigms. For example, the Institute for Outdoor Learning (2020) promotes instructor-led roles within frameworks of assessment and control, in tension with FS's commitment to

participant-led, experiential learning. Yet despite these ideological distinctions, FS's self-positioning as a self-reflective alternative remains under-theorised and insufficiently problematised within much of the literature.

This gap is where my research makes a significant contribution, by interrogating the complexity, contradictions and implicit power relations embedded in FS's pedagogical approach (Garden, 2021; 2024; 2025). While FS is often described as a co-constructed, inclusive and participatory space (Knight, 2013), my findings reveal how power and authority are subtly sustained even within environments framed as power neutral. In doing so, my work moves beyond surface-level celebrations of FS as simply 'alternative' or 'progressive' to expose how these spaces can simultaneously resist and reproduce dominant educational and socio-cultural norms.

While authors such as Barrable and Arvanitis (2019) have examined FS through self-determination theory, these analyses often remain confined to individual psychological dynamics, neglecting the broader socio-cultural forces that shape practitioner-participant relationships. Similarly, although McCree's (2014) reimagining of the FS practitioner as a facilitator marks an important shift from hierarchical models, it risks underestimating the enduring influence of adult authority and normative expectations embedded in FS practice. My work intervenes here by demonstrating how FS can operate as both a site of resistance and subtle reproduction, where adults and children co-construct meaning in ways that may either challenge or reinforce normative values surrounding childhood, risk and nature (Garden, 2022a; Garden and Downes, 2023).

A key area where my research extends the current literature is in theorising the role of play within FS (Garden and Downes, 2021). Play is often celebrated as central to

FS pedagogy, yet the theoretical foundations of this claim are frequently underdeveloped or romanticised. For the purposes of this research, play is conceptualised as a socially constructed, child-led activity that allows for creativity, exploration and negotiated risk-taking (Sandseter, 2009; Sandseter and Kennair, 2011). Sandseter (2009) identifies six categories of 'risky play' including play at height, high speed and with dangerous tools that afford children opportunities to test boundaries, develop resilience and negotiate autonomy. This framing is particularly relevant to FS, where the natural environment is intentionally designed to afford these types of exploratory experiences.

My research (Garden, 2022a; 2022b) interrogates how play within FS functions not merely as a developmental tool but as a socially and ideologically loaded practice. It highlights how risky play in particular becomes a site where children and adults co-construct alternative forms of knowledge, while also reinscribing cultural assumptions about ability, risk, gender and development. In this sense, FS play can be understood as both liberating enabling children to experience autonomy and agency and constrained by the socio-political frameworks that shape its practice (Garden, 2023b; 2024).

As Leather (2018) argues, FS is not a neutral, participant-led model but one deeply entangled with cultural constructions of nature, safety and childhood. Building on this critique, my research further deconstructs the meanings attached to emblematic FS activities such as fire-lighting, den-building and tool use (Garden, 2022a). Although celebrated for their experiential appeal, these activities carry normative assumptions about skill, safety and educational value. By interrogating these practices, my work contributes a more nuanced, critical understanding of FS as a socially and culturally

mediated educational space, shaped by specific historical, relational and ideological dynamics (Garden, 2022b; Leather, 2018).

2.4 The Emerging Theoretical Framework

My research is grounded in a theoretical framework that positions space, power and pedagogy as relational and socially constructed, drawing on the work of Foucault (1977; 1980; 1986) alongside spatial theorists such as Henri Lefebvre (1991) and Doreen Massey (2005). Forest School (FS) environments are not conceived as neutral or 'natural' spaces, but as complex, socially, culturally and institutionally constructed pedagogical sites. This perspective enables a critical interrogation of how these spaces are produced, regulated and experienced by different learner groups, revealing the ways in which broader socio-political structures shape educational practices.

Lefebvre (1991) argues that space is a social product, inherently shaped by political, economic and social processes. His triadic model of space (perceived, conceived and lived) offers a critical lens for understanding how spaces are both material and symbolic, shaped by power relations and ideologies. Perceived space is the sensory experience of the environment, conceived space reflects the abstract, mental understanding of space and lived space pertains to the space of social practice. Lefebvre's work is particularly pertinent in FS settings, where these dimensions of space converge to reinforce or challenge existing power dynamics within education, prompting a deeper exploration of how FS practices either reproduce or subvert dominant educational structures.

Building on Lefebvre, Massey (2005) provides a relational view of space, emphasising that space is constantly in the process of becoming through the intersecting flows of people, objects and ideas. This notion challenges the idea of space as a static or pre-existing entity, suggesting instead that space is shaped by multiple, often contradictory, forces. Massey's concept of space as a 'simultaneity of stories-so-far' is critical for understanding FS as a dynamic, fluid space, continuously re-constructed through the interactions between children, teachers and the environment. This approach pushes us to question how FS spaces are not only shaped by these interactions but also by the power relations and historical narratives embedded within them, reflecting and refracting broader societal tensions and conflicts.

Whilst FS practice may draw upon social constructivist and developmental theories, notably Vygotsky's (1978) sociocultural model and Bronfenbrenner's (1977) ecological systems theory, this research contends that such frameworks, in their conventional application, inadequately account for the socio-spatial power dynamics at play in outdoor educational contexts. Although learning in FS is undeniably relational and situated, existing models often treat this relationality as abstract and placeless, overlooking how space itself operates as a pedagogical agent, shaping possibilities for agency, risk-taking and inclusion. Leather's (2018) critique of FS as reproducing normative educational hierarchies within supposedly liberating outdoor settings underscores the need for a more critically reflexive and spatialised theoretical framing.

To address this, the study adopts a theoretical framework that integrates social constructivism as a spatial and power-inflected process. Building on Vygotsky's

(1978) notion of knowledge as co-constructed through social interaction, this framework extends that understanding by considering how interactions are mediated by the spatial, institutional and cultural contexts of FS settings. Drawing on critical geographies of education (Massey, 2005; Helfenbein, 2021), the research conceptualises FS spaces as contested, negotiated and unevenly accessible, where opportunities for meaning-making, agency and participation are distributed unequally. Learning is thus relational and situated within socio-spatial contexts that reflect broader structures of inclusion, exclusion and control.

Foucault's concepts of power/knowledge and governmentality (Foucault, 1977) are employed to analyse how FS practices regulate bodies, behaviours and identities in ways that both enable and constrain learners, particularly those from marginalised groups. This framing aligns with Harris's (2018; 2021) and Cumming and Nash's (2015) applications of spatial theory to outdoor learning, identifying persistent tensions between the liberatory rhetoric of FS and the regulatory practices embedded within its delivery. In this sense, social constructivism is not treated as a benign process of knowledge exchange but as one shaped by spatially and culturally mediated power relations that influence whose knowledge counts, whose experiences are legitimised and how learners are positioned within FS spaces.

Knight et al's (2023) framework also engages with biophilic and play-based pedagogical traditions not as primary theoretical anchors but as culturally situated practices that interact with the spatial politics of FS provision (Cree and Robb, 2021; Wilson, 1984). Whilst the value of play, risk and nature connection is well documented (Sella et al., 2023), their enactment is shaped by broader discourses around child development, behaviour and safety within formal and informal education

systems. This resonates with Foucault's (1977) assertion that pedagogical practices, even those positioned as progressive or alternative, are embedded within wider mechanisms of discipline and control.

My literature review (Garden and Downes, 2021) further identified a persistent lack of theoretical engagement in FS studies, with most studies relying on experiential narratives and small-scale qualitative accounts. While these studies affirm FS's potential benefits for wellbeing, resilience and creativity, they frequently lack a critical framework for interrogating how these outcomes are mediated by spatial, institutional and cultural dynamics. Recent contributions by Mycock (2019) and Knight et al. (2023) begin to address this gap by proposing interdisciplinary models that conceptualise FS as both a socially constructed practice and an evolving educational framework, though their emphasis remains predominantly on developmental and wellbeing outcomes rather than on the socio-political construction of outdoor learning spaces.

This PhD by Published Work interrogates how FS pedagogies are constructed, enacted and experienced within the socio-spatial and cultural structures of contemporary education (Massey, 2005; Gulson and Symes, 2007; Harris, 2021), with particular attention to inclusion, risk and the reproduction of educational norms (Cumming and Nash, 2015; Leather, 2018). By explicitly theorising social constructivism as a spatial, relational and power-inflected process (Vygotsky, 1978; Foucault, 1977; Harris, 2018), this research contributes to a deeper understanding of the complexities and contradictions inherent in outdoor education practices and their potential for both emancipation and control (Garden and Downes, 2021; Knight et al., 2023; Mycock, 2019).

2.5 Research Aims and Research Questions

Building upon the comprehensive literature review conducted by Garden and Downes (2021), this study proposes a theoretical framework for Forest School (FS) that synthesises key concepts from early years education, special educational needs and disability (SEND) and formal education. The framework highlights abstract themes related to space and its conceptualisation (Fig. 1: Garden and Downes, 2021, FS Conceptual Space), providing a foundation for further exploration into the theoretical and practical aspects of FS.

This investigation is guided by the following research aims:

1. To develop and articulate an interdisciplinary theoretical framework for FS in England, building on Knight et al. (2023), identifying its foundational concepts and exploring their interconnections across diverse educational contexts.
2. To critically assess the methodologies employed in FS research, identifying key strengths and limitations.
3. To explore prominent themes emerging from FS literature, such as autonomy, risk, biophilic connection and place attachment (Leather, 2018; Sandseter, 2009; Sella et al., 2023).
4. To propose recommendations for advancing theoretical and methodological approaches within FS research, addressing gaps and enhancing future studies.

This study addresses the following research questions:

1. What are the core theoretical concepts underpinning the FS framework and how do they intersect to inform pedagogical practices and educational outcomes?
2. What are the strengths and limitations of key methodologies in FS research and how do they contribute to the field's development?
3. What are the dominant themes emerging from the FS literature and how do these shape the evolving discourse on outdoor education and child development?
4. How can FS research methodologies be developed to better capture the complexity of outdoor learning environments?

This research aims to advance both the theoretical and practical understanding of FS, focusing on its pedagogical foundations, including experiential learning and nature-based pedagogy (Coates and Pimlott-Wilson, 2019; Knight et al., 2023). By critically examining FS's broader application in early years and primary education, the study provides practical guidance for educators and policymakers on integrating FS into curricula and fostering connections between children and the natural world (Sella et al., 2023). Additionally, the study explores the challenges and benefits of implementing FS in England, addressing cultural adaptations necessary for success (Garden and Downes, 2021; Leather, 2018).

While Knight et al. (2023) offer a solid foundation with their interdisciplinary model, this research expands upon it by integrating themes of autonomy, risk and social constructivism within FS pedagogy. This approach enhances the theoretical coherence of FS, providing a practical, actionable framework for educators. It further explores the therapeutic potential of FS, particularly in promoting mental health and

resilience and examines space as a socially constructed entity in FS settings (Vygotsky, 1978; Maynard, 2007). These developments aim to provide new insights and recommendations for advancing FS research and practice.

3. Methodology

This research is grounded in a constructivist paradigm, asserting that knowledge is actively constructed through interactions among individuals and their social, cultural and environmental contexts (Phillips and Soltis, 2021). This aligns with Forest School (FS) pedagogy, which emphasises experiential learning, co-construction of knowledge and context-dependent understanding (Whelan and Kelly, 2023). By adopting this perspective, the research acknowledges that learning is dynamic and evolving, shaped by individual experiences and collective cultural narratives.

Ontologically, it embraces a relativist perspective, suggesting that reality is multiple and context-dependent (Barad, 2007). This viewpoint is fitting for FS settings, where the realities of learners, educators and the environment are co-constructed through their interactions and histories. Together, these positions support the exploration of how FS practices manifest across diverse educational environment

3.1 Context

Data collection occurred across diverse educational settings to reflect the multifaceted nature of FS research. These settings included mainstream primary schools, dedicated FS environments, university-based FS programmes and outdoor allotment spaces in Norway. This diversity allowed for a comprehensive examination of FS practices and their adaptation across different cultural and educational

landscapes, providing rich insights into their implementation and impact (Leather, 2018).

3.2 Participants

Participants were selected to provide a comprehensive understanding of FS practices across various educational stages and settings. The research involved a range of stakeholders:

- **Early Years Teachers and FS Leaders:** Engaged in weekly FS sessions with reception class children (aged 4–5), exploring power dynamics and pedagogical strategies (Garden, 2024).
- **Key Stage 2 Children:** A cohort of 32 children from two English primary schools participated in studies examining the integration of tablet devices in FS and their perspectives on outdoor learning (Garden, 2022c; Garden, 2023).
- **Early Years Undergraduates:** A convenience sample of 25 students participated in focus groups to provide insights into their development as early years educators and their views on outdoor learning (Garden, 2023b).
- **Preschool Children in Norway:** Observed in an outdoor allotment-based Garden School setting, focusing on child-led discourses and interactions with nature (Garden and Hirst, 2022).

3.3 Sampling

The sampling approach combined purposive and convenience sampling methods. Purposive sampling selected participants with direct experience in FS or relevant expertise, such as FS leaders, teachers and children actively engaged in FS

sessions. Convenience sampling was used for groups like early years undergraduates to facilitate participation and manage sample size. While this may limit generalisability, the diversity of participants and settings ensures a comprehensive and contextually rich understanding of FS practices (Cohen, Manion and Morrison, 2018).

3.4 Data Collection

A variety of qualitative data collection methods were employed to capture the nuanced experiences and perspectives of participants:

- **Semi-structured interviews:** Conducted with Key Stage 2 children to explore their experiences with digital technology in Forest School settings (Garden, 2022b; Paper 4).
- **Unstructured interviews:** Used to explore children's feelings, the meanings they associated with their outdoor experiences and the images they captured during FS sessions (Garden, 2023a; Paper 7). These were analysed using Interpretative Phenomenological Analysis (IPA) (Smith et al., 2009) to gain a deeper understanding of the children's lived experiences.
- **Focus groups:** Facilitated with early years undergraduates to examine collaborative pedagogical approaches to outdoor learning (Garden, 2023b; Paper 8).
- **Ethnographic observations:** Undertaken at the Norwegian allotment Garden School to provide insight into how children engage with outdoor environments (Garden and Hirst, 2022; Paper 5).
- **Systematic literature review and narrative synthesis:** Following EPPI-Centre (2019) guidelines, a systematic review of Forest School literature was

conducted via the LJMU Discovery tool. The search included only empirical, peer-reviewed studies published within the last decade. A narrative synthesis mapped studies by paradigm, sample size and method, identifying dominant conceptual patterns informed by spatial theories (Lefebvre, 1979; Massey, 2005) (Garden and Downes, 2021; Paper 1).

These methods provided a comprehensive and contextually rich understanding of FS practices across varied cultural and educational contexts.

3.5 Theoretical and Conceptual Analysis

In addition to empirical data collection, this research incorporates theoretical and conceptual analyses to explore broader structural and philosophical dimensions of Forest School practices. Systematic literature review methods (Garden and Downes, 2021) and critical theoretical frameworks such as Foucauldian analysis and ecofeminist perspectives were employed to examine power dynamics, constructions of space and gender relations within FS settings. These analyses allowed the research to bridge empirical findings with broader socio-cultural critiques, enriching the depth and scope of the study.

3.6 Ethics

Ethical considerations were central to the design and conduct of this research. Full ethical clearance was obtained from the Liverpool John Moores University (LJMU) Research Ethics Committee prior to the commencement of each study included within this PhD by Published Work. The research adhered rigorously to the LJMU Code of Practice for Research and the British Educational Research Association (BERA, 2018) Ethical Guidelines for Educational Research.

Informed consent was obtained from all participants and their legal guardians in the case of minors, ensuring they had a clear understanding of the study's aims, methodology, potential risks and their rights within the research process. Children also gave their own assent to participate (managed through school-led consent processes), in line with ethical guidelines (BERA, 2018). Participants were reminded of their right to withdraw from the study at any time without consequence.

Particular attention was paid to child protection protocols, especially in outdoor learning environments where the risk of harm could be elevated. Safeguarding measures were implemented in line with national legislation and institutional policies (DfE, 2023). Confidentiality and anonymity were maintained, with all personal data anonymised at transcription and securely stored in accordance with GDPR (2018) requirements.

Permissions were obtained from all co-authors for the inclusion of their jointly authored publications within this submission.

3.7 Data Analysis

A combination of data analysis methods was used to accommodate the qualitative nature of the research:

- **Interpretive Phenomenological Analysis (IPA):** Applied to interview data to explore the lived experiences of participants in FS, focusing on how they interpret their involvement in FS (Smith, Flowers and Larkin, 2009; Garden, 2022b).
- **Thematic Analysis:** Employed to identify and interpret recurring themes from focus groups, interviews and observations, contributing to a comprehensive

understanding of outdoor learning practices within FS (Braun and Clarke, 2006; Garden, 2023b; Garden and Hirst, 2022).

- **Foucauldian Analysis:** Used to critically examine power dynamics and socio-cultural influences within FS settings (Foucault, 1977; 1980; Garden, 2024).

This multi-method approach provided a robust framework for analysing FS practices, integrating subjective participant experiences with broader socio-cultural dynamics.

4. Findings

This PhD by Published Work addresses overarching research questions through three central, intersecting themes: Autonomy, Risk and Social Constructivism. The following sections synthesise findings from my peer-reviewed published papers, critically reflecting on how these intersections shape both theory and practice in FS (Garden, 2025).

4.1 RQ1: What are the core theoretical concepts underpinning the FS framework and how do they intersect to inform pedagogical practices and educational outcomes?

Across the published papers, autonomy emerges as a cornerstone of FS pedagogy, reflecting a commitment to child-led learning (Waite, Goodenough and Bentsen, 2016; Garden, 2022a). The FS approach actively encourages children to make decisions, engage independently and take ownership of their learning experiences. Papers 1 (Garden and Downes, 2021) and 2 (Garden, 2021) demonstrate that fostering autonomy can lead to enhanced self-regulation, problem-solving abilities and emotional resilience. However, autonomy within FS is not without contradiction.

As Leather (2018) and Mycock (2019) argue, the theoretical emphasis on autonomy is often constrained by external pressures such as curriculum mandates and risk-averse institutional cultures, resulting in a tension between pedagogical ideals and their realisation in practice.

The concept of risk further complicates the FS theoretical framework. Risk-taking is widely acknowledged as essential to the development of resilience and moral reasoning (Sandseter, 2009; Knight, 2013; Coates and Pimlott-Wilson, 2019). Paper 3 (Garden, 2022a) and Paper 5 (Garden and Hirst, 2022) expand this view by illustrating how risk is socially and culturally constructed. Despite the theoretical emphasis on Forest School (FS) as a space that fosters risk-taking and autonomy, in practice, FS often has to carefully navigate between promoting these ideals and complying with safety protocols influenced by neoliberal, market-driven education systems (Leather, 2018; Gill, 2007). This highlights a persistent gap between the theoretical ideals of FS and the practical realities of its implementation.

Social constructivism, rooted in Vygotsky's (1978) theories, frames FS as a co-constructed, relational learning space (Garden, 2023; Garden and Downes, 2023). Rather than passive reception, learning in FS settings emerges through dynamic interactions between children, practitioners and the environment (Massey, 2005). However, as discussed in Paper 7 (Garden, 2023), the increasing integration of digital tools introduces complexities into these interactions, with the potential to either enrich or undermine relational, sensory-based learning (Hills and Thomas, 2019).

4.2 RQ2: What are the strengths and limitations of key methodologies in FS research and how do they contribute to the field's development?

My research employs a range of methodological approaches, including systematic reviews (Garden and Downes, 2021), case studies (Garden, 2022a), cross-cultural comparisons (Garden and Hirst, 2022) and ethnographic explorations (Garden, 2023). These diverse methods facilitate a rich, nuanced understanding of Forest School (FS) practice, offering insights into its complexities across varied contexts.

Case study approaches allowed for a detailed, bounded exploration of FS environments, foregrounding how specific social, cultural and pedagogical contexts shape children's and practitioners' experiences. These studies are particularly valuable in FS research, where the ethos of practice is relational and site-specific, as they make visible the nuances of interaction, learning and identity formation that are often obscured in broader, decontextualised analyses. Ethnographic approaches, by contrast, enabled a more immersive engagement with the field. Through participant observation, reflexive journaling and collaborative methods, I was able to explore how FS spaces are experienced and negotiated in situ. This methodology aligned with a constructionist epistemology, acknowledging that knowledge is co-produced with participants and shaped by the researcher's presence. For example, in Papers 3 and 6, ethnography enabled me to interrogate how space and risk are co-constructed through daily routines, embodied practices and power relations. This approach also supported participatory and visual methods, such as the use of children's photography in Paper 7, which helped access the voices and perspectives of children including those with SEMH needs who may otherwise struggle to articulate their experiences in conventional interviews.

Together, these methodologies offered complementary strengths: case studies provided a clear structure and depth within bounded contexts, while ethnography

opened up the relational, processual and power-laden dimensions of FS practices, revealing them as dynamic and contested rather than static or universally beneficial. Importantly, these approaches also enhanced my reflexive engagement with positionality. As a Forest School leader, I was both insider and researcher, a dual role that brought privileged access and trust but also ethical tensions around power and representation. The iterative, reflexive nature of ethnography helped me navigate these dynamics and develop a more critical, theory-informed analysis in later papers.

Nevertheless, these methodologies also have limitations. The heavy reliance on qualitative case studies, while providing rich contextual insights, often restricts the generalisability of findings (Lincoln and Guba, 1985), limiting the ability to draw broader conclusions about the impact of FS across different settings. Furthermore, as pointed out by Leather (2018), FS research sometimes adopts a normative stance, presupposing that FS is inherently beneficial. This uncritical approach risks overlooking the contradictions and limitations within FS practices. My work (Garden, 2022b) seeks to address this by examining tensions within FS, but there is still a need for more critical, mixed-methods research that can evaluate FS's effectiveness more rigorously. A more balanced approach, combining qualitative depth with quantitative analysis, would enhance the field's ability to assess FS's claims and its broader educational and socio-political implications.

4.3 RQ3: What are the dominant themes emerging from the FS literature and how do these shape the evolving discourse on outdoor education and child development?

Three dominant and intersecting themes emerge from the FS literature reviewed in this thesis: Autonomy, Risk and Social Constructivism.

First, autonomy is presented as critical for holistic development (Garden, 2022a; Garden and Downes, 2021). However, the literature problematises the gap between rhetoric and reality, that is, institutional pressures and adult-led agendas often curtail the child-led aspirations of FS (Leather, 2018; Mycock, 2019).

Second, risk is reframed from being a danger to an essential element of developmental growth (Sandseter, 2009; Knight, 2013). Papers such as Garden (2022a) and Garden and Hirst (2022) highlight how socio-cultural contexts shape attitudes toward risk. Critiques such as those from Leather (2018) and Gill (2007) caution that neoliberal policy frameworks commodify and sanitise risk, limiting its authentic developmental potential.

Third, social constructivism underpins the relational, co-constructed nature of FS learning spaces (Garden and Downes, 2023; Garden, 2023). The evolving discourse increasingly recognises FS sites as dynamic and socially mediated rather than neutral backdrops for learning (Massey, 2005). Yet, tensions arise with the incorporation of technology, which risks undermining the sensory and embodied relationality central to FS (Waite, 2011; Hills and Thomas, 2019).

4.4 RQ4: How can FS research methodologies be developed to better capture the complexity of outdoor learning environments?

To capture the true complexity of outdoor learning environments, FS research must move beyond descriptive case studies and embrace more multi-dimensional, critical methodologies. My portfolio of work addresses this by demonstrating how diverse

methodological approaches can interrogate the social, political and relational dimensions of Forest School (FS). Three key developments are proposed:

- **Mixed-Methods Research:**

Current FS research often lacks methodological breadth and is critiqued for being overly anecdotal (Leather, 2018). In Paper 1 (Garden and Downes, 2021), my systematic review identified a need for greater methodological rigour, particularly through combining qualitative insights with quantitative measures such as longitudinal tracking of socio-emotional development. This would enable researchers to build a stronger evidence base for FS and respond to criticisms about its limited evaluative scope.

- **Critical Policy Analysis:**

Future research should critically examine the broader policy frameworks that shape FS practice. My work in Papers 6 and 9 (Garden and Downes, 2023; Garden, 2024) applied Foucauldian perspectives to uncover how neoliberal agendas, curriculum pressures and safeguarding policies influence FS as a socially constructed space. This critical orientation highlights that autonomy and risk are often negotiated within and sometimes constrained by socio-political forces (Gill, 2007; Leather, 2018).

- **Participatory Research Approaches:**

Embedding child-led methodologies, where children are active researchers rather than passive subjects, aligns with the ethos of FS and provides more authentic insights into their experiences of autonomy and risk. In Papers 4 and 5 (Garden, 2022b; Garden and Hirst, 2022), I explored innovative participatory and narrative approaches that foreground children's voices and

experiences, demonstrating the value of co-constructed research processes in outdoor learning contexts (Harris et al., 2023).

Thus, while autonomy, risk and social constructivism underpin FS theoretically, my research shows that their enactment is shaped and sometimes distorted by external socio-political pressures. Adopting mixed methods, engaging in critical policy analysis and embracing participatory approaches offers a way forward for FS research that better reflects the complexity of outdoor learning environment.

5. Discussion

The themes of Autonomy, Risk and Social Constructivism offer a synthesis that reflects how their intersections shape both the practice and theory of Forest Schools (FS). The following sections integrate these themes into a cohesive framework, drawing on Foucault (1977; 1980) and Massey (2005) perspectives on power, space and temporality in FS environments.

5.1 Autonomy in Forest Schools

Autonomy is central to the FS pedagogy, where it is defined as the ability for children to lead their own learning experiences (Waite, Goodenough and Bentsen, 2016).

Throughout the thesis, autonomy is emphasised as essential for developing independent learners, particularly within outdoor settings. FS environments purport to offer children the freedom to make decisions, engage with activities and explore their surroundings independently (Garden, 2022a). This autonomy is argued to foster self-regulation, problem-solving and resilience as children navigate both physical and social challenges in nature (Garden and Hirst, 2022).

However, autonomy in FS is not an unqualified ideal; it is shaped by the sociocultural and institutional dynamics at play. Foucault (1977) reminds us that power is not merely exerted through visible forms of authority but is internalised by individuals through norms and practices. This is particularly evident in FS settings, where the notion of ‘appropriate risk’ or ‘acceptable behaviour’ is dictated by educators, parents and institutional policies. While autonomy is central to FS, it is often contested by external pressures such as national curricula and safety regulations that limit child-led learning (Leather, 2018). These external forces do not merely constrain autonomy; they shape how children understand their own agency and risk-taking, further reinforcing Foucault’s notion of power’s internalisation within educational contexts (Foucault, 1977).

Massey’s (2005) theory of space as relational and fluid helps understand the construction of autonomy in FS. FS spaces evolve over time, shaped by repeated interactions among children, educators and the environment. The autonomy children experience is dynamic, shaped by ongoing processes of negotiation, influence and power dynamics. In this way, autonomy is both a practice and a product of the spatial and social relationships embedded within the FS context (Garden, 2023).

Relevant Papers:

- **Paper 1:** Garden and Downes (2021) – This systematic review highlights the centrality of autonomy within FS and reveals how institutional pressures hinder its full realisation. FS environments offer a space for autonomy, but these spaces are constrained by national curricula and risk-averse policies, aligning with Foucault’s view of power as internalised through institutional frameworks.

- **Paper 3:** Garden (2022a) – This paper explores how risk and autonomy intersect in FS, arguing that educators' perceptions of acceptable risks shape how children experience autonomy. It also discusses how power dynamics regulate these processes, aligning with Foucault's notion of 'disciplinary power'.

5.2 Risk in Forest Schools

Risk is not simply a by-product of Forest School (FS) but a necessary pedagogical condition, viewed as crucial for fostering resilience, independence, problem-solving and moral development (Gill, 2007; Sandseter and Kennair, 2011). Without opportunities to engage with real, embodied risks, children are denied the developmental affordances that come from testing boundaries and encountering uncertainty. Sandseter (2009) identifies six categories of risky play including play at height, at speed and with dangerous tools, which collectively offer vital experiences for building confidence and self-regulation. From this perspective, risk is not an optional element of FS but central to its ethos, that is, a means by which children learn to assess danger, negotiate autonomy and develop coping strategies in complex environments.

However, these opportunities are often mediated and constrained by institutional frameworks. Risk-taking in FS is shaped by safety regulations, safeguarding protocols and educators' perceptions of 'acceptable' risk (Leather, 2018). Here, Foucault's (1977) concept of the panopticon provides a valuable lens: educators, parents and institutional policies act as surveillance mechanisms, subtly regulating children's engagement with risk. This regulation extends beyond the physical domain

to emotional and social risks, influencing children's willingness to explore and challenge themselves.

Massey's (2005) notion of space as relational deepens this analysis. The physical layout of a Forest School including its natural boundaries, affordances and sightlines becomes a medium for negotiating risk. For instance, natural barriers may create a sense of wild freedom for children while simultaneously affording educators control over visibility and access. Thus, both risk and safety are co-constructed within the socio-spatial dynamics of FS environments.

Relevant Papers:

- **Paper 3:** Garden (2022a) – This paper explores how FS environments support resilience through risk-taking. However, it also reveals the limitations placed by safety regulations that constrain opportunities for authentic risk-taking, demonstrating how institutional power shapes pedagogical practices in FS.
- **Paper 5:** Garden and Hirst (2022) – This cross-cultural study investigates how cultural attitudes towards risk influence FS practices, further reinforcing the idea that risk is a socially constructed concept. The paper highlights how societal and institutional power structures shape how risk is managed and perceived in FS contexts.

5.3 Social Constructivism in Forest Schools

Social constructivism, rooted in Vygotsky's (1978) theories, is a core principle of FS pedagogy, where children co-construct knowledge through social interactions with peers and the environment. FS settings create opportunities for collaboration,

problem-solving and mutual learning in ways not typically available in traditional, structured educational settings. These social interactions, however, occur within a spatial and temporal context influenced by power dynamics, with the role of educators and institutional expectations shaping how knowledge is co-constructed.

Foucault's (1980) notion of technologies of the self offers a valuable framework for understanding how FS supports the development of self-regulation and self-care. Through embodied, relational practices, children learn to manage risk, autonomy and their own behaviour, aligning with Foucault's theory that individuals internalise power relations to govern their conduct.

Relevant Papers:

- **Paper 4: Garden (2022b)** – This paper explores how digital technology is used in FS to support collaborative learning and the co-construction of knowledge. It examines how these tools influence the social dynamics of learning, highlighting a tension between technology and the embodied social interactions central to FS pedagogy.
- **Paper 7: Garden (2023a)** – This paper examines how photographic images in FS settings can influence the co-construction of knowledge, demonstrating how space and power dynamics mediate these social interactions. The study aligns with Vygotsky's constructivist approach, showing how children negotiate and construct knowledge through their relationships with their peers, educators and the physical space itself. Photographs, as artefacts of learning, also offer a way of visualising and reflecting on the knowledge co-constructed in these settings, adding another layer to the social dynamics that shape learning.

- **Paper 9: Garden, A. (2024)** - This paper draws on Foucault's analysis of power to explore how Forest Schools function as socially constructed spaces for learning, where the roles of educators, children and the environment are continually negotiated. It highlights how power dynamics within these spaces influence how knowledge is co-constructed and how educational practices are shaped by broader societal expectations.

By integrating Foucault's analysis of power relations (Foucault, 1977; 1980), Massey's relational space (Massey, 2005) and Vygotsky's social constructivism (Vygotsky, 1978), this research highlights the dynamic, evolving nature of Forest Schools as both educational practices and spatial constructs.

5.4 Contribution to Knowledge

Forest School (FS) has gained increasing prominence in contemporary education, purporting to foster autonomy, risk-taking and child-led, experiential outdoor learning (Knight, 2013). Yet, despite its growing empirical support, FS has faced criticism for under-theorised foundations and a tendency to privilege practice over conceptual development (Leather, 2018; Kraftl, 2013). This thesis addresses these gaps by introducing the Garden (2025) Forest School (FS) Space Model: The Intersections of Autonomy, Risk and Social Constructivism in Forest School Pedagogy (Figure 2), which situates FS within a robust theoretical framework incorporating educational, spatial and power discourses.

Theoretical and Epistemological Positioning

My research is positioned at the intersection of social constructivism and social constructionism, terms often conflated in educational discourse, but which require

careful distinction when theorising FS. As Crotty (1998) makes explicit in *The Foundations of Social Research*, the two perspectives operate at different levels:

- Social constructionism offers a macro-level epistemological lens, emphasising how meaning is collectively generated, transmitted and reshaped through discourse, social practice and cultural narratives. Drawing on the sociology of knowledge (e.g., Berger and Luckmann, 1966), Crotty describes this as the view that “meanings are not discovered but constructed ... co-constructed through culture” (1998: 58).
- Social constructivism, by contrast, reflects a psychological orientation (e.g., Vygotsky, Piaget), centring on the individual’s meaning-making processes within social and environmental contexts: “Constructivism concentrates on the meaning-making activity of the individual mind” (Crotty, 1998: 58).

Leather (2012), applying Crotty’s distinction in outdoor and experiential education, underscores the need for researchers to articulate their epistemological stance. I argue that FS pedagogy occupies a negotiated space between these paradigms: it is grounded in constructivist learning theories that emphasise children’s agency, exploration and experiential meaning-making, yet is deeply informed by constructionist processes, where cultural discourses of childhood, nature and education shape the possibilities for autonomy and risk-taking within FS settings.

This research contends that conventional applications of constructivist and constructionist frameworks inadequately account for the socio-spatial power dynamics at play in FS. Drawing on Foucault’s (1977) analysis of power and Massey’s (2005) relational conceptualisation of space, I theorise FS as a socially and spatially mediated pedagogical arena where autonomy, risk and play are co-

constructed through power-laden interactions between children, practitioners and cultural narratives of outdoor learning.

This positioning reframes autonomy as more than an individual endeavour, highlighting its enactment within socially negotiated, culturally mediated spaces. Similarly, risk-taking emerges not simply as a developmental challenge but as a pedagogical asset, influenced by collective understandings of safety, resilience and educational value. Play, therefore, operates as the nexus where constructivist meaning making intersects with constructionist forces that define which forms of autonomy and risk are sanctioned within FS contexts.

The FS Space Model

The Garden (2025) FS Space Model (Figure 2) conceptualises FS as a dynamic, socially constructed pedagogical space where autonomy, risk and social negotiation converge to shape children's learning. While FS aligns with social constructivist traditions (Vygotsky and Cole, 2018), its treatment of autonomy and risk remains under-theorised (Waite and Goodenough, 2018). Drawing on Foucault's (1977) analysis of power and Massey's (2005) relational notion of space, the model examines how FS despite its outdoor setting remains influenced by regulatory frameworks that shape cultural narratives about childhood, nature and education.

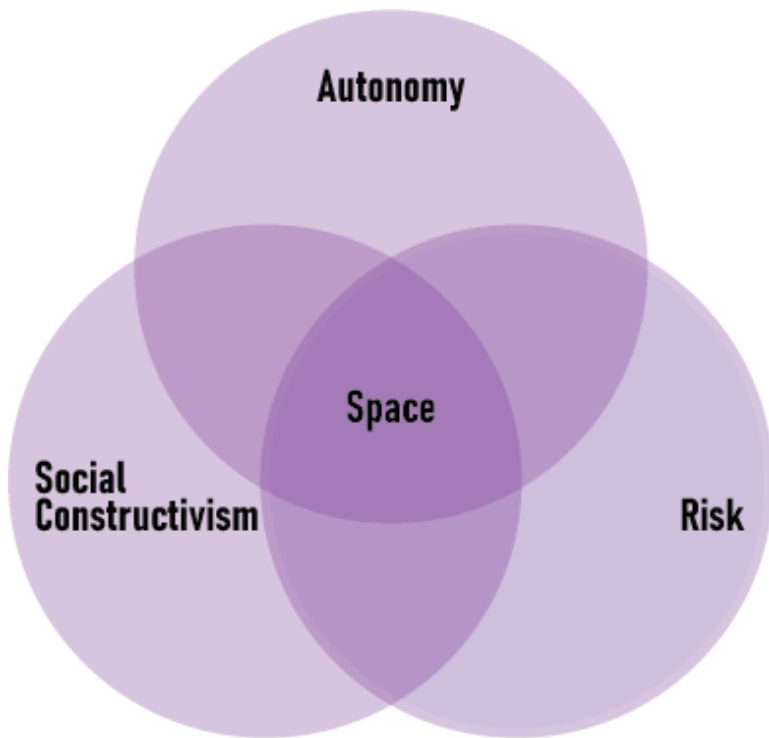


Figure 2: Garden (2025) Forest School (FS) Space Model: The Intersections of Autonomy, Risk and Social Constructivism in Forest School Pedagogy

This new model builds on my earlier Garden and Downes (2021) framework (Figure 1: FS Conceptual Space), which mapped FS across educational contexts such as early years, SEND and alternative education. While the previous model provided a broad descriptive mapping, the FS Space Model offers critical theorisation, shifting focus from where FS operates to how autonomy, risk and social negotiation are actively co-constructed within these settings.

Key Contributions

The Garden (2025) FS Space Model makes three key contributions to knowledge:

1. Autonomy - Reframing autonomy beyond 'child-led' learning, the model foregrounds children's decision-making, agency and self-directed exploration within socially negotiated spaces (Leather, 2018).
2. Risk - Reconceptualising risk as a pedagogical asset, the model demonstrates how physical and social risks in FS contribute to resilience and emotional literacy, challenging risk-averse educational cultures (Sandseter, 2009).
3. Social Constructivism - Deepening understanding of these traditions, the model situates FS as a co-constructed learning environment shaped by children, practitioners and the natural world, mediated by cultural discourses and power relations (Vygotsky and Cole, 2018; Maynard, 2007; Waite and Goodenough, 2018).

By applying a spatial lens informed by Foucault (1986) and Massey (2005), this research redefines FS as a socio-cultural and physical space. It addresses theoretical gaps identified by Kraftl (2013) and Leather (2018), integrating insights from early years education, SEND and alternative educational paradigms (Garden and Downes, 2021; Coates and Pimlott-Wilson, 2019). In doing so, it advances both the theoretical and practical dimensions of FS, providing a critical framework for understanding how autonomy, risk and social interaction are enacted, negotiated and spatially mediated within contemporary outdoor education.

6. Conclusions

This research extends the theoretical framework proposed by Knight et al. (2023) by examining the socio-cultural construction of FS spaces through Foucault's (1977) theories of power, space and discipline. Within this framework, FS is positioned not

merely as a site for risk-taking and autonomy, but as a dynamic, co-constructed environment shaped by socio-cultural forces and the interactions between teachers and students. The negotiation of both physical and symbolic spaces within FS plays a crucial role in the learning process, aligning with Foucault's assertion that space is never neutral but always imbued with power relations (Foucault, 1977; 1980).

Furthermore, the integration of biophilic interaction (Wilson, 1984) within Knight et al.'s (2023) framework is not solely concerned with nature's therapeutic benefits but explores how the natural environment interacts with power structures within FS (Knight, 2013; Wilson, 1984). While outdoor spaces can promote autonomy and managed risk-taking (Garden and Downes, 2021), they also mediate how learners engage with broader societal expectations and norms. This ecological perspective highlights outdoor learning as a form of socio-cultural resistance, enabling learners to explore their physical and emotional boundaries in ways often constrained within formal education. In this way, FS becomes a site of negotiation between personal, social and cultural forces, reflecting and challenging the power dynamics inherent in traditional educational environments (Foucault, 1977; Bourdieu, 1990).

By integrating spatial theory, this PhD by Published Work advances Knight et al.'s (2023) framework to conceptualise FS as a relationally negotiated and socially constructed space. Drawing on Massey (1994; 2005) and Bronfenbrenner (1979), the FS environment is understood as a dynamic intersection of agency and socio-cultural forces, where structure and opportunity are continually co-constructed. This challenges traditional views of educational environments as passive backdrops to learning, positioning them instead as active participants in the pedagogical process.

Moreover, this research shifts FS discourse toward the socio-cultural and spatial dynamics underpinning its pedagogical potential. FS is framed not only within ecological and play-based paradigms (Kellert, 2012; Knight, 2013), but also through lenses of spatiality and power (Foucault, 1986; Massey, 2005), emphasising its role as a space of negotiation, empowerment and resistance. This framework offers new insights into how FS spaces can empower and challenge learners, particularly those with Social, Emotional and Mental Health (SEMH) needs (Bronfenbrenner and Morris, 1998; Waite and Goodenough, 2018).

However, while FS practices claim to disrupt conventional paradigms, they are not without tension. Critical questions persist regarding the extent to which FS may reproduce privilege, exclusion, or normative discourses, particularly around access to natural spaces and cultural assumptions embedded in outdoor pedagogies (Wattchow and Brown, 2011). A more nuanced and critical engagement with these complexities is imperative to critically engage with FS practice.

6.1 Limitations

Whilst this PhD by Published Work offers valuable insights into the socio-cultural construction of FS, several limitations must be acknowledged. The studies were based on a limited number of case studies and observations and the outcomes of FS practice are highly context dependent. The complex, dynamic nature of FS environments means findings may not be universally applicable. Broader empirical research across a range of FS contexts is needed to deepen and diversify our understanding of the socio-cultural dynamics at play.

6.2 Implications

The findings from this research have important implications for FS practitioners and educators in terms of encouraging a more critical and reflective approach to FS pedagogy, recognising the pervasive influence of power dynamics and social hierarchies in outdoor learning environments. By embracing a more inclusive model, educators may empower marginalised learners within traditional education systems (Coates and Pimlott-Wilson, 2019).

The concept of hybrid, 'third spaces', that is, emergent spaces blending school structures with FS principles, offers an important avenue for development. Kemp (2020) asserts that teaching staff in these spaces often demonstrate 'agency', engaging with FS as an act of resistance against mainstream standards agendas. Schools frequently adapt FS to suit their specific contexts, raising important considerations for the FS movement about the extent to which flexibility should be permitted (FSA, 2021). Enabling educators to adapt FS while maintaining its core values could better align FS practice with the realities of diverse school contexts. Understanding these hybrid adaptations is crucial for navigating the balance between preserving FS principles (FSA, 2011) and integrating into broader educational landscapes.

6.3 Future Directions

Future research should explore the intersectionality of FS, investigating how social, cultural and economic factors impact access to and participation within FS spaces. Longitudinal studies would provide essential insights into the longer-term effects of FS on social-emotional development and academic outcomes (Knight et al., 2023).

Further exploration of how FS pedagogies can be adapted to support diverse learners, particularly those with SEND, is also necessary.

Building on these areas, future studies should investigate the experiences of trained FS leaders implementing provision across different contexts. Comparing leaders from diverse professional backgrounds, including those from outdoor education and adventure learning sectors, could yield important insights into the varied approaches to FS. Research by Whincup, Allin and Greer (2021) highlights the challenges FS leaders face when integrating FS within formal educational settings; a deeper understanding of these experiences could inform more supportive training models.

Finally, ongoing critical inquiry into the relationship between space, power and pedagogy is essential for the development of equitable FS practice. As Kemp (2020) notes, while FS's adaptability to school contexts presents opportunities, it also poses risks of co-optation. Research must continue to investigate how FS adaptations can support educators' agency without compromising FS's commitment to inclusivity, empowerment and resistance to dominant educational agendas (FSA, 2011; Whincup, Allin and Greer, 2021). In this way, FS can better adapt to the needs of diverse learners while critically engaging with the evolving demands of education systems.

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