

Part 1 - Engaging in the garden project fundamentally transformed my understanding of sustainability within early childhood education. Initially, I viewed sustainability as a series of environmental activities that could be planned for children. However, through sustained observation, reflection and engagement with contemporary literature, I came to recognise sustainability as an ethical and relational way of thinking that shapes how we understand children, nature and our role as practitioners. This project challenged many of my assumptions and encouraged me to reconsider how meaningful sustainability education can be embedded within everyday practice.

Elliott and Ärlemalm-Hagsér (2020) argue that meaningful sustainability practice begins with educators developing their own relationship with the natural world before attempting to foster this connection in children. Reflecting on the project, I recognise that my own ecological awareness developed alongside the children's. At the beginning, my focus centred on what the children would learn from creating the garden. However, as the project progressed, I realised that I was also learning, questioning and developing my own understanding of sustainability. This challenged my previous assumption that sustainability was primarily about teaching environmental knowledge and instead helped me understand it as an ongoing process of learning, reflection and relationship-building.

This shift in perspective became particularly evident when I first observed the small piece of land we had been gifted. Hadland (2020) suggests that educators develop stronger sustainability pedagogy when they intentionally slow down and observe the natural world. Initially, I expected to see an empty area that required development. Instead, I discovered a thriving ecosystem of spiders, worms, woodlice, snails, slugs and birds already occupying the space. This moment fundamentally changed my thinking. Rather than viewing sustainability as something created through planned activities, I began to understand that meaningful learning already existed within the environment. My role was not to control nature but to help children notice, appreciate and develop relationships with it. This also highlighted how easily educators can

overlook the educational value present within natural spaces when focusing too heavily on adult-led planning.

These observations encouraged me to think more deeply about the relationships that exist within nature rather than viewing plants, animals and people as separate elements. Cutter-Mackenzie-Knowles et al. (2020) emphasise that sustainability thinking is rooted in recognising ecological interconnectedness. Observing how insects, plants, soil and weather continually influenced one another enabled me to understand the garden as a living system rather than simply an outdoor learning area. This represented a significant shift in my thinking because I no longer viewed sustainability as a collection of environmental activities but as understanding relationships between living things. This has influenced how I intend to approach future practice by placing greater emphasis on helping children explore these connections rather than focusing solely on individual activities or outcomes.

My developing understanding of interconnectedness also resonated with the work of John Muir, a foundational conservationist whose writing emphasises the relational nature of ecosystems. Muir observed that “when we try to pick out anything by itself, we find it hitched to everything else in the universe,” highlighting the deep interdependence between living things (Muir, 1911). Although Muir’s work originates from environmental conservation rather than early childhood education, his perspective reinforces the idea that nature is relational, interconnected and worthy of care. Engaging with the garden helped me recognise these same principles within our setting, as the children began noticing how insects, plants, soil and weather influenced one another. Muir’s belief that humans are part of nature rather than separate from it supported my shift from viewing sustainability as isolated activities to understanding it as a holistic, relational practice embedded in everyday experiences.

As my understanding developed, I also began to interpret the children’s learning differently. Davis and Elliott (2024) argue that repeated, meaningful experiences within natural environments contribute to children’s developing ecological identities. Watching the children investigate insects, plant vegetables and herbs, paint shadows and create

habitats for wildlife demonstrated that meaningful sustainability learning emerged through authentic experiences rather than adult-directed instruction. Initially, I believed that effective teaching required carefully planned resources and structured activities. However, this project showed me that children's curiosity often developed most powerfully when they were given time, freedom and trust to explore naturally occurring phenomena. This has encouraged me to place greater value on child-led enquiry and spontaneous learning opportunities within outdoor environments.

My understanding of sustainability also extended beyond environmental awareness to include relationships with families and the wider community. Welsh Government (2022) highlights that sustainability education is strengthened when children, families and educators work collaboratively. This became evident during our Together Time session, where families joined children in planting vegetables from food scraps. Reflecting on this experience helped me understand that sustainability is not solely concerned with caring for the environment but also with building relationships, sharing responsibility and strengthening communities. Observing parents and children learning together reinforced my belief that sustainability becomes more meaningful when experienced collectively rather than individually.

Creative reflection further deepened my understanding. Elliott and Ärlemalm-Hagsér (2020) suggest that creative reflection allows educators to explore their developing ecological identities. Writing my poem enabled me to revisit quieter moments of the project that were less visible within photographs or written observations. This process encouraged me to reflect not only on what the children achieved but also on the emotional connections that developed between ourselves, the garden and the wider natural world. It helped me appreciate that sustainability is not only practical but also deeply emotional, relational and personal.

Overall, this project has significantly influenced both my personal understanding of sustainability and my developing professional philosophy. Davis and Elliott (2024) argue that sustainability is most effective when lived rather than taught, and this idea now underpins my approach to early childhood education. Throughout the project, I learned

to observe more carefully, question my assumptions and trust the environment as a powerful teacher. Most importantly, I now understand that my role extends beyond teaching children about sustainability; it involves modelling respect, curiosity and care through everyday interactions with children, families and the natural world.

Part 2 - A critical evaluation of the garden project requires examining how effectively the practice aligns with contemporary research, theory and policy relating to early childhood education for sustainability. Rather than describing the project as successful, it is necessary to analyse the extent to which it supported children's ecological understanding, agency, enquiry skills and engagement with wider sustainability concepts. This involves identifying both strengths of the approach and limitations that restricted deeper pedagogical impact. Evaluating the project through established literature provides a basis for determining how well the practice reflects current expectations for sustainability education and where further development is required.

Drawing on the work of Elliott and Årlemalm-Hagsér (2020), sustainability in early childhood is best understood as an ethical and relational orientation rather than a set of environmental tasks. The project reflected this shift, particularly as the educator began recognising the garden as a living ecosystem rather than an empty space. This transformation aligns with research suggesting that educators must first develop their own ecological awareness before they can meaningfully support children's learning. However, recognising sustainability as relational also requires educators to embed intentional pedagogical strategies that deepen children's conceptual understanding, which represents an area for further development.

Building on Froebelian principles discussed by Meggitt et al. (2016), the project successfully provided authentic experiences that allowed children to engage directly with nature. Children investigated insects, planted vegetables and cared for living things, demonstrating curiosity and responsibility. These experiences align with Froebel's belief that nature supports holistic development. However, Froebel also

emphasised the importance of sustained dialogue and reflective conversation. While the scrapbook documents rich activity, there is less evidence of adults extending children's thinking through purposeful questioning or co-construction of meaning. Without this, experiential learning risks remaining surface-level rather than supporting deeper ecological literacy.

Moore (2012) highlights that children's understanding develops most effectively when adults scaffold thinking through sustained dialogue. Although the project offered many opportunities for exploration, adult-child interactions appeared more descriptive than analytical. For example, children observed insects and plants, but opportunities to explore why these phenomena occur were less evident. This suggests a need for more intentional pedagogical planning to ensure that children's observations lead to conceptual progression rather than remaining isolated experiences. Embedding sustained shared thinking would strengthen children's ability to make connections, hypothesise and reason scientifically.

The project's emphasis on repeated engagement with nature strongly aligns with Davis and Elliott (2024), who argue that ecological identity develops through meaningful relationships with the environment over time. Children demonstrated pride and responsibility when watering plants, maintaining habitats and harvesting produce. These behaviours indicate emerging ecological identity. However, ecological identity is strengthened not only through participation but through agency. Siraj-Blatchford, Mogharreban and Park (2018) emphasise the importance of positioning children as active participants within ecological and social systems. In this project, most decisions about the garden's design remained adult-led. A more democratic approach inviting children to choose planting areas, design habitats or evaluate the garden's development would enhance both agency and environmental citizenship.

Understanding ecological relationships was another strength of the project. Observations of insects, soil, weather and plant growth helped children recognise interconnectedness, echoing Cutter-Mackenzie-Knowles et al. (2020). However, recognising interconnectedness requires more than observation. Opportunities for

deeper enquiry such as exploring how pollinators support plant growth or why certain insects prefer particular habitats were limited. Strengthening enquiry-based learning would deepen children's scientific understanding while maintaining curiosity. Incorporating prediction, investigation and reflection would support children in developing more sophisticated ecological reasoning.

The social dimension of sustainability was also evident. Family involvement during Together Time demonstrated that sustainability learning extends beyond the setting. This aligns with Welsh Government (2022), which highlights the importance of collaboration within the Curriculum for Wales. While family engagement was strong, broader community partnerships were less developed. Collaborating with local environmental organisations or community gardens would help children recognise sustainability as a shared societal responsibility. Such partnerships could also provide opportunities for children to see sustainability enacted in real-world contexts, strengthening the connection between their learning and wider ecological systems.

Children's rights also form a crucial part of sustainability education. UNICEF (2019) asserts that children have the right to participate in decisions affecting their environments. The project supported this through practical involvement, yet participation was largely operational rather than democratic. Inviting children to co-construct the project through planning, evaluating and adapting the garden would strengthen both rights-based practice and environmental citizenship. Embedding democratic participation would also support children's sense of ownership and agency, reinforcing sustainability as a shared responsibility.

Perhaps the most significant outcome of the project was the educator's professional transformation. Davis and Elliott (2024) emphasise that sustainability is most effective when lived rather than taught. The educator's shift from viewing the garden as an empty space to recognising it as an ecosystem reflects this lived understanding. Elliott, Ärlemalm-Hagsér et al. (2020) further argue that educators must continually question their assumptions and engage critically with their practice. Sustaining this approach requires ongoing reflection and intentional pedagogical planning to ensure sustainability

becomes embedded within long-term practice. This includes developing clearer learning intentions, strengthening enquiry-based interactions and ensuring children's agency is central to decision-making.

In conclusion, the garden project demonstrated many characteristics of effective early childhood sustainability education: authentic engagement with nature, meaningful family involvement and opportunities for child-led exploration. However, contemporary literature consistently argues that meaningful sustainability learning requires intentional scaffolding, conceptual progression, democratic participation and connections to wider ecological and social systems. Strengthening these elements would deepen children's ecological understanding, enhance agency and ensure sustainability becomes an ethical and relational approach underpinning all aspects of early childhood education. This evaluation reinforces that sustainability is not an additional curriculum topic but a pedagogical commitment requiring continual reflection, collaboration and purposeful practice.

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