

Part 2 – reflection and evaluation: early childhood education for sustainability

Good morning, my name is Lois Duffy. In this presentation, I will reflect on my experience in Part 1 of my scrapbook and evaluate how it supported my understanding of sustainability. I will then critically examine how such experiences contribute to early childhood education for sustainability, drawing on relevant theory, policy, and research. In Part 1, I engaged in a nature walk around Abergwili Museum.

The aim of this experience was to explore sustainability not just as an abstract concept, but as a practical, lived experience. During my walk, I deliberately slowed down, paused, and took in the natural environment. By doing this, it allowed me to recognise what is right on our doorstep that we often overlook or fail to fully appreciate. This simple act of observation encouraged me to reflect more deeply on my surroundings and my relationship with the environment. This activity enabled me to move from a general understanding of sustainability to a more complex and applied perspective. Prior to this, I primarily viewed sustainability in terms of environmental protection. However, through this experience, I began to understand it more holistically, incorporating environmental responsibility, social equity, and economic awareness. I also became more aware of how everyday practices, such as resource use, waste management, and decision-making, are closely connected to sustainable living. This shift in understanding helped me realise that sustainability is not just about large-scale global issues, but also about the small, everyday choices we make.

I chose Abergwili Museum as it is an area that my family and I use quite frequently. Over the years, it has become a special location for us, where we have watched our son grow, learn about nature, and develop a love for exploring the outdoors. This personal connection made the experience more meaningful, as I was able to reflect not only as a student, but also as a parent. It highlighted how informal, everyday environments can play a significant role in shaping children's attitudes towards nature and sustainability.

A key area of development for me was my growing confidence in engaging with sustainability in practice. For example, I developed skills in facilitating discussions with children about sustainability, encouraging curiosity and critical thinking. I began to consider the types of open-ended questions I could ask, such as encouraging children to think about where natural materials come from or what happens to them over time. Additionally, I became more reflective of my own behaviours and choices, recognising the importance of modelling sustainable practices in my everyday life.

This led me to think more critically about my role as an educator, not as a passive participant, but as an active representative in promoting sustainability. As a result, sustainability began to feel more accessible and meaningful, rather than something dependent solely on wider community efforts. I realised that as an educator, I have a responsibility to embed sustainable practices into daily routines and interactions, helping children to develop an early understanding of their impact on the world.

(Leslie Paul Thiele, 2013) states that sustainability is the idea of meeting our present needs without compromising the ability of future generations to meet theirs. It involves balancing environmental protection, economic growth, and social well-being so that resources are used responsibly and not depleted or damaged over time. This means reducing waste, conserving natural resources like water and energy, protecting ecosystems, and supporting fair and healthy

communities. In practice, sustainability can include actions such as using renewable energy, minimizing pollution, and making ethical choices in production and consumption. Overall, it is about creating a long-term, stable way of living that supports both people and the planet.

Education for sustainable development expands on traditional learning by helping individuals understand the deep connections between environmental, social, and economic systems. Rather than focusing only on academic knowledge, it encourages learners to think critically about real-world issues such as climate change, biodiversity loss, poverty, and resource management. Through education for sustainable development, students are taught not just what to think, but how to think, developing skills like decision-making, collaboration, and problem-solving that can be applied in everyday life.

A key feature of education for sustainable development is its focus on values and behaviours. It promotes respect for the environment, cultural diversity, and social equity, encouraging people to take responsibility for their actions. For example, learners might explore how reducing waste, conserving energy, or supporting ethical businesses can contribute to a more sustainable society. It also emphasises active participation, meaning students are encouraged to engage in their communities, take part in sustainability projects, and become informed global citizens.

Globally, education for sustainable development is supported by organisations such as (UNESCO, 2024) and is closely linked to initiatives like the United Nations Sustainable Development Goals (United Nations, 2015), which provide a shared framework for addressing global challenges. In schools, colleges, and universities, education for sustainable development can be integrated across subjects from science and geography to economics and citizenship making sustainability a central theme in education.

Ultimately, education for sustainable development empowers people of all ages to contribute to a more balanced and sustainable future. It helps build awareness, inspires action, and fosters a sense of responsibility toward protecting the planet while improving quality of life for everyone.

Importantly, this experience highlighted that sustainability is most effectively learned through action. Hands-on engagement allowed me to consider how children might interact with sustainability concepts in meaningful and age-appropriate ways. It reinforced the value of experiential learning and emphasised the educator's role in guiding inquiry, rather than simply transmitting knowledge. This aligns with the work of John Dewey (1933), who argued that learning occurs through experience and reflection. Although John Dewey did not use the modern term "sustainability," his ideas strongly connect to what we now call education for sustainable development. Dewey believed that education should be practical, experience-based, and closely linked to real-life problems. His concept of "learning by doing" encourages students to actively engage with the world around them, which aligns with sustainability education's focus on solving environmental and social challenges.

Dewey also emphasised the importance of democracy and community in education. He argued that schools should prepare individuals to participate responsibly in society, making informed decisions that benefit both people and the wider world. This idea supports sustainability, which requires cooperation, ethical thinking, and consideration of future generations. In addition, Dewey believed that education should develop critical thinking rather than just memorisation. This is essential in sustainability, where learners must evaluate complex issues like climate change, resource use, and inequality. By encouraging reflection, problem-solving, and social responsibility, Dewey's philosophy provides a strong foundation for modern approaches to

sustainable education. Overall, while Dewey lived before sustainability became a global concept, his educational theories continue to influence how we teach and learn about building a more sustainable and responsible world.

Similarly, Lev Vygotsky (1978) emphasised the importance of social interaction and guided learning, suggesting that children construct understanding through meaningful engagement with others and their environment. The ideas of Lev Vygotsky are highly relevant to sustainability education, particularly through his focus on social interaction and guided learning. Vygotsky believed that learning is a social process, meaning that people develop knowledge through collaboration, discussion, and shared experiences with others. In the context of sustainability, this is important because many global challenges such as climate change and inequality require collective understanding and cooperative solutions rather than individual action alone.

A key concept in Vygotsky's theory is the Zone of Proximal Development, which describes the difference between what a learner can do independently and what they can achieve with guidance from a teacher or more knowledgeable peer. In sustainability education, this idea supports the use of guided learning, where teachers help students explore complex topics step by step. For example, a teacher might support students in understanding environmental issues by modelling problem-solving approaches or encouraging group discussions that build deeper understanding. Vygotsky also introduced the idea of "scaffolding," where support is gradually reduced as learners become more confident and capable. This approach is especially useful in sustainability education, as students often need guidance to grasp complicated systems and long-term impacts. Through collaboration and support, learners can develop the skills needed to think critically, make informed decisions, and take responsible action.

Overall, Vygotsky's emphasis on social interaction and guided learning aligns closely with education for sustainable development. His theories highlight the importance of working together, learning from others, and being supported in tackling complex global issues key elements in building a more sustainable future.

(Powell and Somerville, 2018) argues that sustainability in the early years is about helping young children build a simple understanding of how to care for the world around them through everyday experiences and play. At this stage, learning is practical and hands-on, so children can explore ideas like recycling, saving water, growing plants, and looking after animals. These activities help them begin to see how their actions can affect the environment and other people. Early years settings also promote important values such as kindness, sharing, and responsibility, which support the idea of living sustainably within a community. By introducing sustainability in a simple and engaging way, young children can develop positive habits and attitudes that encourage them to care for the planet as they grow older.

Abergwili Museum is an excellent place for children to engage in meaningful learning experiences while developing a respect for nature. It provides valuable opportunities for hands-on learning, allowing young visitors to explore and understand the importance of sustainability in a simple and engaging way. The museum goes beyond focusing solely on history by actively connecting children to the natural environment around them. One of the most valuable aspects of the museum is how it introduces children to sustainability through practical experiences. For example, by offering seeds and plants for regrowth, it encourages children to take part in caring

for living things and to understand the process of growth from the very beginning. This not only helps them learn about responsibility, but also introduces key ideas such as recycling, biodiversity, and environmental care in a way that feels natural, meaningful, and enjoyable. These types of experiences are particularly important in early childhood, as they allow children to develop positive relationships with nature from a young age.

I will now critically evaluate how experiences such as this support early childhood education for sustainability, drawing on theory, policy, and research. Education for sustainability in early childhood focuses on empowering children to understand their world, develop respect for the environment, and take responsible action. The Brundtland Report, published by the United Nations, defines sustainability as meeting the needs of the present without compromising the ability of future generations to meet their own needs. This definition highlights the importance of introducing sustainable thinking from an early age, as children are the future decision-makers of society.

From a policy perspective, frameworks such as the Early Years Foundation Stage (Department for Education, 2024) emphasise the importance of understanding the world, encouraging children to explore their environment and develop respect for living things. Similarly, in Wales, the Curriculum for Wales (Welsh Government, 2023) promotes the development of ethical, informed citizens who are aware of sustainability and their role within it. These policies support the integration of sustainability into early years education through active, child-centred learning approaches that reflect real-life experiences.

UNICEF (2025) further supports the idea that early childhood is a critical period for developing sustainable attitudes and behaviours. Research by Nancy Wells and Kristi Lekies (2006), as well as Stanley Asah et al. (2018), suggests that when children engage in hands-on, nature-based experiences, they are more likely to develop a strong sense of connection to the environment. This connection can lead to more responsible and environmentally conscious behaviours later in life.

However, it is important to critically recognise that simply exposing children to nature is not enough. The role of the educator is crucial in scaffolding learning, asking open-ended questions, and encouraging reflection to deepen understanding. Without this guidance, learning may remain surface-level rather than leading to meaningful, long-term understanding.

Furthermore, while experiential learning is highly valuable, there are challenges to consider. Julie Davis (2009) suggests that access to natural environments may be limited in some settings, and educators may lack confidence or training in delivering education for sustainability. This highlights the need for ongoing professional development and institutional support to ensure that sustainability is effectively embedded in practice. Additionally, there is a risk of oversimplifying sustainability if it is only approached through environmental activities, without addressing its social and economic dimensions. A more holistic approach is needed to ensure children develop a well-rounded understanding of sustainability.

In conclusion, my experience at Abergwili Museum significantly deepened my understanding of sustainability by moving it from a theoretical concept to a practical, lived experience. It enhanced my confidence, critical awareness, and understanding of my role as an educator. Critically, experiences like this play a vital role in early childhood education for sustainability by promoting active, meaningful learning. However, their effectiveness depends on thoughtful implementation, informed by theory, supported by policy, and strengthened through reflective

practice. Ultimately, educators have a key responsibility in shaping children's understanding of sustainability and empowering them to become responsible, informed citizens who are capable of contributing positively to the future.

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