

AI Cover Sheet

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Cover sheet

Link for PP presentation sent to Natasha Morgan and Glenda Tinney on the 6th of July 2026

Script- Page 3-8

Reference list for part 2 - 9-12

Script part 2

Reflection

Introduction

Why I chose my garden- growing Bangladeshi vegetables

Memories of dad and what he has taught me

Learning about diversity: paying more attention to the little things, insects pollinating, ladybirds eating aphids.

Learning about sustainability: rainwater, flowers to attract pollinators, reducing use of pesticides. Conservation and creating habitats to support biodiversity

Early years: Opportunities for exploring and being curious, build connection from an early age

Sharing with others: Conversations that my garden would start. Sharing spare seedlings. Individually may seem insignificant but together can make a difference

Conclusion – Biggest lesson- that a small garden can make a big difference.

Academic Section

Introduction

According to Ruggerio (2021) sustainability is something that continues to develop within environmental research and policy. It is mainly concerned with finding a long-term balance between environmental, social and economic needs. Rather than a fixed meaning sustainability can be seen as a broad framework that helps us think

about how present actions may affect people, communities and the natural environment in the future (Ruggerio, 2021). Similarly, the Brundtland definition describes sustainable development as the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs (Greve and Laustsen, 2024). In Wales, this understanding of sustainability is reflected in the Well-being of Future Generations (Wales) Act 2015, which places importance on making decisions that protect the well-being of people, communities and the environment for future generations. This links closely to the Curriculum for Wales, as children are encouraged to develop as ethical, informed citizens who understand their relationships with the natural worlds (Welsh Government, 2022). In early years practice, sustainability can therefore begin through simple, hands-on experiences such as growing plants, caring for living things and exploring biodiversity in the outdoor environment. This can be seen in my John Muir Award project, where using my own garden helped support biodiversity and encourage children's connection with nature.

So what is Biodiversity?

Biodiversity is one area of sustainability that has become increasingly important (Saleh et al., 2024). According to Pimm (2019) biodiversity means the variety of living things found in a place on earth, such as plants, animal, insects, as well as the different habitats and ecosystems they are part of. Every living thing has a role to play within an ecosystem (BBC Bitesize, 2021). For example, as you can see from my John Muir project, insects pollinate flowers, ladybirds control aphids. If one part of the ecosystem begins to disappear, it can affect many other species as they all rely on each to survive (Gonzalez-Maya, Vela-Vargas and Ceballos, 2025). Through my John Muir project, I realised that without bees, many of my plants would struggle to pollinate, which would affect the production of fruit and vegetables.

Moving onto problems with Biodiversity

Biodiversity loss is one of the most significant environmental challenges facing the world today. It refers to the decline in the variety of living organism (UNEP, 2022; HM Government, 2023) including plants, animal and insects. However, biodiversity loss is not only about species becoming extinct. It also includes habitat destruction and

weakening of ecosystems that support life (Rafferty, 2024). This shows that biodiversity matters because it supports the natural process that human rely on, including pollination, fertile soil and maintaining a stable climate.

A key reason for biodiversity loss is human activity. Urban development such as houses and roads can remove natural habitats, leaving wildlife with fewer places to survive (Keck et al., 2025). Additionally, Intensive farming produces more food but can also reduce biodiversity because large areas of land are used for one type of crop. This reduces the variety of plants and habitats within agricultural landscapes (Belanger, and Pilling, 2019). Furthermore, climate change adds pressure through rising temperature, which can lead to biodiversity loss because some plants and insects struggle to survive when their environments become too hot. This links to sustainability because it shows the difficulty of balancing human needs with environmental protection. While housing, roads, intensive food production are important for society, they can damage habitats and reduce biodiversity.

The Environment (Wales) Act 2016 require public bodies to maintain and enhance biodiversity, while also promoting the resilience of ecosystems. Additionally, the Wellbeing of Future Generations (Wales) Act 2015 also supports long term decision making by encouraging public bodies to consider the needs of future generation. This suggests that biodiversity is not only an individual responsibility, but also a wider policy issue that requires long term planning and actions from public bodies. This also links to Jane Davidson's work as she argues that Wales approach to sustainability is based on thinking beyond short term decision and wellbeing of future generations (Davidson, 2020). However, legislations alone do not automatically protect biodiversity. Biodiversity continues to decline because environmental protection often competes with economic pressures, such as building new homes, expanding transport networks and increasing food productions (Fastre et al., 2020). Although these developments are important for society, they can damage habitats if nature is not considered from the beginning (Heymans et al., 2019). This shows the difficulty of balancing human needs with protecting the natural world. For example, societies need housing, transport and food production, but theses developments can put pressures on habitats and wildlife. Biodiversity loss therefore shows that environmental issues are not simple, as they are connected to economic, social and political decisions.

How it relates to early years

So, moving on from biodiversity as a wider environmental issue, it is important to consider how this links to early years education. Early childhood is a key stage where children begin to form their understanding of the world around them, including their relationship with nature as early nature experience can support this connection. This means early years settings can play an important role in helping children develop curiosity, care and respect for living things from a young age (Barrable and Booth, 2020). This links closely to the Froebel approach, that nature should be at the heart of children's learning (Froebel Trust, 2022). Froebel argued that children learn best through first hand experiences and exploration of the natural environment rather than simply being told (Tovey, 2022). This suggests that spending time outdoors allows children to observe and begin to understand that living things depend on one another. This reflects the Curriculum for Wales, as it values meaningful, hands-on learning experiences where children can explore, question and make connections with the world around them and develop as ethical informed citizens (Welsh Government, 2022). This links back to sustainability because early years education can help children develop values, knowledge and responsibility needed to care for the natural world in the future.

Additionally, children may need support to notice things, ask questions and understand small actions such as growing vegetables, caring for insects and contribute to sustainability. Vygotsky's sociocultural theory believed that children learn through social interaction and guidance from the more knowledgeable other (Smolucha and Smolucha, 2021). In early years practice, this means that adults have an important role in helping children notice things, ask questions and make sense of the natural environment. For example, when an adult supports children in gardening, they are helping the child understand within their zone of proximal development. This shows outdoor learning is not just about being outside, but also how adults guide children's thinking. Through discussion, questioning and shared exploration. By giving children meaningful experiences with biodiversity from a young age, practitioners are supporting not only children's learning but also the wider aim of protecting the environment for future generations.

However, children are growing up in a world where natural spaces are becoming increasingly limited (Soga and Gaston, 2016), meaning there are fewer opportunities to experience wildlife and develop meaningful connections with nature. This is concerning because early childhood is a crucial period for developing attitudes, values and behaviours that continue throughout life (Ernst et al., 2021). This shows that they may be less likely to understand its importance or recognise the impact biodiversity loss has on both people and the environment. This is particularly important because research shows that access to nature is not equal for all as some may have gardens and green spaces nearby, while others may have fewer opportunities due to urban living and limited outdoor provision (Olsen et al., 2022). This links back to sustainability because it shows that caring for the environment is also about fairness and future generations.

What can be done about it

As biodiversity is the chosen sustainability issue, this next section will explore what can be done to respond to biodiversity loss, particularly in early years. Although the cause of biodiversity loss is complex, actions can be taken at different levels, including through policy, community action and early years provision (EVS institute, 2024). This is important as sustainability is not only about identifying environmental problems, but also about considering actions that protect the natural world for the future generation, similar to Jane Davidson's argument that sustainability requires long term thinking and practical action rather than short term decisions (Davidson, 2020)

At a wider level, one response is to protect and restore habitats before further damage takes place. This wider response is reflected in the Habitat creation and restoration environment act target delivery plan, which commits to protecting and restoring over 500, 000 hectares of wildlife habitats to stop further ecological decline (GOV.UK, 2025). Actions to support biodiversity can include protecting and restoring green spaces, planting native woodlands, creating connected wildlife habitats and ensuring that land use decisions and new development consider biodiversity from the beginning (GOV.UK, 2025). These measures aim to create more resilient ecosystem, improve habitats connections and support the long-term recovery of diversity.

At a community level, local group and residents can contribute to biodiversity conservation through practical actions within their neighbourhood. This includes simple gardening behaviours such as planting native or insect attracting species as a simple way for households to support local habitats (Dean et al., 2024). This approach is reflected in the John Muir gardening project, where the planting of pollinator friendly species helped to create habitats for local wildlife while encouraging community engagement with biodiversity conservation to support sustainability. Additionally, schools and community organisation can also raise awareness of biodiversity issues and encourage sustainable practice (UNESCO, 2022). By increasing environmental knowledge and participation, these initiatives can encourage long-term behaviour change and develop a sense of responsibility towards protecting biodiversity (Ardoin, Bowers and Gaillard, 2020).

And finally, within early years practice, the response to biodiversity loss can begin through regular and purpose outdoor experiences to develop lasting biodiversity knowledge and early ecological awareness (Torkar and Klofutar, 2026). Rather than only taking the children outside for play, practitioners can plan opportunities that help children notice living things and understand their role within nature. As seen in the John Muir project this can include planting pollinating friendly flowers, growing vegetables, creating bug hotels, collecting rainwater and caring for small habitats. These experiences allow children to see biodiversity in a practical way and begin to understand that their actions can either support or harm the natural world (Torkar and Klofutar, 2026).

Overall, responding to biodiversity loss through policy, community actions and early year education supports sustainability by helping to protect ecosystems, conserve natural resources and promote behaviours that promote behaviours that meets current needs without compromising the ability of future generations to meet their own needs.

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