

Sustainability in the Early Years

I would like to share with you what I have learnt from doing the John Muir award. I picked an area which I frequently visit in Carmarthen, where I take my dogs for walks. It runs alongside a stream and I concentrated on the hedgerows, wildlife, trees and flowers.

I was lucky as a child to live opposite a common and used to play there often. I remember once running home with bluebells I had picked there for my mother. I was disappointed at her response to them as she told me I should not have picked them as they are a protected species and it is against the law. Looking back that was probably my first lesson about sustainability. I used to go with my family when I was a child and I still do with my children who are adults now and my grandson to visit the beaches and countryside around where we live. I have learned from doing this award so much about the world around us which in a way I think I took for granted. I want to share what I learned and how my mind now thinks with my grandson as he grows up and the children in the setting where I work. It shows that you are never too young to learn about sustainability and how important it is to learn about it from a young age. I look forward to sharing the experiences with my grandson who is just one year old and he will grow up thinking about it naturally and it will be his way of life.

I have learned many fun facts and interesting facts about the world around us and am enjoying sharing with the early years practitioners and children in the setting in which I work such as hedgerows support up to 80% of our woodland birds, 50% of our mammals and 30% of our butterflies. Also that they are useful for water management and connect habitats making them wildlife friendly aswell as supporting pollinators.

I learned about the fungi and wildlife that live on trees. A tree had come down in the poor weather a few weeks ago across the stream. Unfortunately the tree had just been removed when I wanted to take a photograph for the project. It made me feel sad when I thought about the wildlife and plants that actually relied on that tree for life including the fungi that grows on the bark. I previously would have thought it sad that the tree had fallen but I guess I had not stopped and considered the implications on the wildlife, plants and insects until now.

I became aware of the lack of butterflies and bees in the area. I planned to take photographs of them but unfortunately each time I have visited I have not seen any. From this I decided to plant some wild flower seeds to try and encourage the butterflies and bees to the area. Ideally it should have been done earlier in the year but I have given it a go and will plant earlier next year. Hopefully they will spread too. I learned lots of facts about butterflies too and the species that we could find around us. Aswell as finding out information about different trees, plants and flowers I was surprised to learn that lots of seeds are in pine cones and these provide sustenance for the wildlife animals such as squirrels and birds.

I also thought then about a bug hotel and have set one up in the area. We have one in our setting which we built a few months ago and it has encouraged bug life and I

felt that one was needed in this area too. It was made out of crates with lots of natural materials such as twigs, cones and leaves to fill the nooks and crannies to encourage the bugs.

To share with the children and to help them learn about the life cycle of butterflies we have in our setting bought caterpillars and shown the children each step along the way from a caterpillar to a chrysalis to a butterfly. We have been patiently waiting for the butterflies to hatch which they have done overnight so I have been able to add some photographs today to the project. They need to be left some days before they can be released so I cannot include that step in the photographs in my project.

I do feel that I have learned about our local habitat and I appreciate more as I have stopped and looked and listened and I have researched the area and the nature in the area. I have been sharing with family and the early years practitioners and children that I work with.

It has really opened my eyes to understand how important sustainability is, how much it should be shared with younger generations from an early age and then they can grow up with the importance of it instilled in them so it will become natural for them and then they can pass onto future generations. I know for a fact although I believe I have been very mindful through my life of sustainability from my upbringing I will appreciate the natural world around us so much more going forward and will be sharing my knowledge with others. This I am grateful of doing the John Muir Trust Award.

The John Muir Trust recognises the importance of children's well-being and rights working towards a fairer, safer and more sustainable society. The vision of the trust is "A world where wild places are valued for present and future generations". The award is an environmental award focused on wild places and encourages young people and adults to respect and protect the world around them. The impact that the current generation has on the nature now has an impact on the environment for future generations.

Undertaking the practices can support the philosophy and principles of early years care and education in sustainability. This involves integrating eco-friendly practices, adopting environmental awareness and cultivating a sense of responsibility towards the environment amongst the early years children. This approach aligns with the holistic development goals of early years care and education and promotes a sustainable future. By early years practitioners integrating sustainability into the care and education of the early years children helps the children develop an understanding and appreciation of the natural world around them. (Welsh Government, 2022)

Sustainability is something that planting the seeds to grow flowers aswell as helping the children having an understanding of how important it is to look after the environment and the world about us and how great the impact of sustainability can have on the environment. According to Kidsinnature (2023) it is important for children at an early age to be introduced to nature, learn in nature and have a love of nature as it will be with them for their lifetimes.

According to Davis (2015) by encouraging children to explore, observe and ask questions about the environment and their surroundings lays the groundwork for lifelong environmental care. Welsh Government endorses this with the four purposes of the new curriculum which for each child to be a successful learner, a confident individual, a responsible citizen and an effective contributor. (Welsh Government, 2022) The new curriculum framework states that by having engaging experiences, enabling adults and an effective environment supports children's development and progress. (Welsh Government, 2022) Children need freedom, space and time to explore their environment which can be had by doing activities such as planting the seeds and looking after them and watching them grow.

A holistic approach to sustainability in early years care and education included activities such as recycling, nature walks, building bug hotels and planting flowers and produce. These activities teach children about sustainability, allows them to reconnect with the non-human world and develops their cognitive and social skills whilst giving them a sense of place. (Welsh Government, 2022) The activities were practical ones and linked to the ESDGC, Wellbeing of Future Generations Act, UN Sustainable Development Goals and the new Curriculum for Wales, including ethical citizenship.

Edwards and Cutter-Mackenzie (2011) state that from research gathered, hands on experiences with nature can significantly enhance the children's understanding of ecological concepts and their role in preserving the environment and the world around them. Hand on experiences such as planting and growing the seeds into flowers enables the children's rights to experience an environment where play is valued through the new curriculum's developmental pathways. (Welsh Government, 2022)

Early years practitioners play a critical role in promoting sustainability. Ongoing training in sustainability and ways to educate the early years children is paramount to the practitioners keeping up to date with current knowledge and skills to be able to deliver the eco-friendly practices in their settings. Elliot and Davies (2009) believe that such training programs about sustainability lead to more effective implementation of sustainable practices in early years settings.

Early years practitioners modelling sustainable behaviours such as using eco-friendly materials, reducing waste and saving water helps children do these things as part of their daily routines. Tilbury (1995) and Welsh Government (2022) emphasises the importance of practitioners modelling sustainable practices to influence children's attitudes and behaviours towards the environment. The importance of the early years practitioner role in modelling sustainability practices to the early years children cannot be stressed enough. By doing this in the outdoors, promoting sustainability early years practitioners are inspiring positive interactions with the outside world by sharing their own awe and wonder. By showing positive attitudes to the outdoor world and nature provides the children with foundations so they can develop a sense of place within their immediate surroundings, their locality, Wales and the wider world. (Welsh Government, 2022)

In order to encourage children to care for the environment around them, children need to be immersed with it. This includes giving the children as many opportunities as possible to play and use the outdoors and when access to the outdoors is limited to bring natural materials and resources inside. Children need to understand the importance of being careful and mindful of not taking the natural materials and ensuring that enough is left for the wildlife. Giving children the opportunities and time to connect with and appreciate the natural world and wildlife is important as they share the outdoor world with them. (Welsh Government, 2022)

To encourage children to develop a sense of empathy for their environment can be done by ensuring they have time, space and opportunities to experience fully the elements. In addition, this enables the children to build an understanding and awareness of the impact they have on the future of the world. (Welsh Government, 2022)

Planting seeds with the early years children can provide valuable time for creative thinking and reflection which are key principles of ESDGC. By providing the opportunities to children to explore with planting seeds, allows them to develop their creativity. They learn more by doing themselves and having the whole experience of the seeds growing into flowers. Watching the seeds grow, planting them, learning in nature, looking after them and dealing with any problems encourages innovative thinking and problem-solving skills. (ESDGC) This was the same with collecting the loose parts and building the bug hotel.

Their imagination can develop and grow by planning where to plant them, discussing their care and can make stories about where the plants live and are growing. This is critical to do from an early age. Growing plants gives a sense of patience and understanding and allows the children the chance to reflect on and then understand and appreciate the world around them which offers a deeper connection to sustainability. They gain more environmental awareness and the importance of caring for the environment by learning in the real situation. The hands on learning experience of planting the seeds teaches the children about sustainability and the growth cycle of plants and this is important that the children understand this from the early years. However they have to consider the weather and challenges such as pests. These activities help children have an appreciation of the connection between life and the global impact of local actions. It is a fundamental aspect of global citizenship education which helps children with their understanding of their role in creating a sustainable future. (ESDGC)

By having settings with sustainable materials and systems that are energy efficient can reduce the ecological footprint. Some ways of doing this can be the use of natural lighting and using outdoor areas more for learning and play. According to Moore and Cosco (2007), environmentally sustainable settings promote health and well-being as well as fostering a connection with nature.

Teaching the children the value of conserving by recycling and reusing resources and materials shows them the value of resource conservation. A report by the National Association for the Education of Young Children (NAEYC) (2010) highlights

the importance of implementing recycling and waste reduction in early years settings to instil sustainable habits early on.

Encouraging families in sustainability initiatives helps reinforce the concepts used at the settings. Parents can be encouraged to attend sustainability projects such as workshops and to use these concepts at home. According to Moser and Martisen (2010) having parental support with sustainability initiatives enhances the overall impact of sustainability and ensures the continuity of sustainability practices at home as well as in the setting.

The study undertaken by Dankiw *et al* (2023) discussed parent and early childhood educator perspectives on unstructured nature play for young children. Research from this indicates that as well as holistic benefits gained from outdoor nature play, children also develop a positive attitude towards sustainability practices which they take through into adulthood. According to Dankiw *et al* (2023) the advantages of children participating in nature play is to enhance their learning about sustainability. However, despite the benefits parents and early years practitioners hit barriers. These included the parents saying about the weather barriers such as cold, rain and extreme heat. They also said about time restraints, access to nature and the children getting dirty as well as resource limitation.

Ernest *et al* (2021) stated how parents and early years practitioners had expressed how engaging in nature play activities from an early age can result in children having positive attitudes to sustainable practices in the future. The children who participated in the nature play program improved their knowledge about plants, wildlife, living things and cared about nature.

By collaborating with local organisations and communities can provide additional resources and support for sustainability resources. Local recycling centres, community gardens and environmental organisations can offer valuable learning experiences for children. Hacking *et al* (2007) suggests that community partnerships in early years contributes to a richer, more diverse learning environment and promotes a broader community engagement in sustainability efforts.

According to the Froebel Trust (2022), children learn through real life experiences about the interrelationship of all living things. This in turn helps the children to think about the importance of the environment, sustainability and climate change. (Froebel Trust, 2022) Moreover, Froebel (1912) stated that the adults and children should go and investigate together and learn and understand the world about them, the spirit and the love of nature and appreciate it.

Davis and Cooke (1996) and Davis (1998) stated how important environmental education is to get children to rethink and change what they are currently doing to secure healthy and sustainable futures for current and future generations. If everyone made a small change it would lead to global awareness.

According to Barrable (2019), the future generations need to feel connected with nature from the early years. This will benefit the future generations and the planet. The United Nations named the period of 2004-2015 as the Decade of Education for Sustainable Development.

Moreover, Derlaan (1999) stated that the Environmental Education (EE) was replaced with Education for Sustainable Development (ESD). McKeown and Hopkins (2003) acknowledged the differences between EE and ESD, however Kopnina (2012) states how the ecocentric goals of the EE were moved away from and a more anthropocentric drive for development. According to Davis (1998) the EE focused on the environment as in, for and about it. Moreover, Hungerford and Volk (1990) wanted to reinstate the environmental sustainability and changes that were positive in the EE learning goals.

According to Croke *et al* (2021) a missed opportunity has happened due to the Sustainable Development Goals (SDGs) and The Convention on the Rights of the Child not connecting globally. According to Kilkelly (2020) although there has been an international agenda for both children's rights and sustainable development developed over the last 30 years, the agendas have not worked together when they could have worked hand in hand.

Lundy (2019) sees children as autonomous and legitimate rights holders and sees their-self determination. The National Youth Parliament (1999-2019) and 'Lleisiau Bach Little Voices' (2011-2020) which is child-led are projects which both locally and nationally are involved in the decision making on sustainable development and children's rights.

Welsh Assembly Government in 2003 stated that children and generations of the future should not inherit problems left by previous generations. (Welsh Government, 2003) As a result of this a plan was put in place and through implementation and mainstreaming lead to eventually having the enactment of The Well-being and Future Generations Act (Wales) (2015) (Davidson, 2020 and Welsh Government, 2015).

Play Wales (2020) states that children and babies need opportunities provided for them giving first-hand experiences outdoors so they can build connections and learn about the world about them. They gain knowledge and through having contact with nature and the outdoors children learn about sustainability and the circle of life.

Montessori, Dewey, Froebel and Pestalozzi all put great emphasis on the environment in early years education and care both indoors and outdoors. (Barrable, 2019)

Moreover in England, (DFES, 2006) Scotland, (Brown, 2010) Australian Government, (2009) Canada, (Makovichuk, 2014 and Scotia, 2018) and Wales (Welsh Government, 2022) all have in their early years curriculum and frameworks access to outdoor learning and the natural environment as a significant part.

These developments towards using the natural environment and the outdoors has been strengthened by all the research that has been done to support children and the benefits of them being in the outdoors. These include social, educational and cognitive benefits. (Gill, 2014)

According to CWMPAS (2023) following feedback received from a programme, showed that children were more relaxed and happier whilst using the outdoor area

and showed interest in nature and the world around them. It also showed that this involvement with nature supported children's independence and resilience. (Welsh Government, 2022)

Two studies (Wells and Lekies, 2006) and Andrejewski *et al*, (2011) are two papers that researched how the relationship between pro-environmental beliefs and behaviours with children's experiences. Both concluded that the children's environmentally protective behaviours were associated with the children's connection with nature, either from behaviour or nature connectedness. Other studies showed similar outcomes with linking emotional affinity to nature and nature-protective behaviours. (Otto and Pensini, 2017, Kals *et al*, 1999, and Nisbet *et al*, 1999)

According to Samuelsson and Park (2017) Goal 4 of the Sustainability Development Goals is applied to Early Years children to ensure they have inclusive and equitable quality education in order that they receive lifelong learning opportunities.

According to Tinney and Hirst (2017) an important part of sustainable development philosophy is actually acknowledging and recognising that children and education play a key part in changing the behaviour of people so that the correct behaviour is used to allow for a society and environment to have a sustainable future. Sustainable development has been an important part of Welsh policy following the Government of Wales Act in 1998 being passed by the UK Government.

According to the Wildlife Trust, encouraging sustainable thinking in the early years can be done by talking to the children about future generations and our ancestors and discovering the animal and plants that live in and share the world around them. It needs to be instilled in the children that they are important and that their actions make a difference. Examples of this are making a bug hotel, wormery and planting flowers for future butterflies and bees.

By encouraging sustainability in the early years, all four purposes of the Curriculum for Wales can be integrated. (Welsh Government, 2022) By allowing them to be in charge of their outdoor spaces such as planting seeds for flowers to grow for future bees and butterflies they are being provided with a sense of ownership and responsibility. They are learning about the world around them where they live, developing a sense of belonging and are being caring and contributing to the environment. Choosing how to plant the seeds and where to plant them allows the creative side of the to be shown and the opportunity to express their ideas as in the four purposes. (Welsh Government, 2022)

Learning and creativity are endless when children are included in the process of sustainability in the outdoor environment. Furthermore Welsh Government (2022) states that 'a rich and diverse outdoor environment allows authentic opportunities for the development of skills integral to the four purposes. The use of natural and open-ended resources enhances the development of the imagination, creativity and curiosity'.

By supporting the philosophy and principles of sustainability in early years care and education involves a multifaceted approach that involves the parents, children, early

years practitioners and stakeholders. By embedding sustainability into the early years cultivates environmentally conscious individuals who are equipped to tackle the challenges of the future. (Welsh Government, 2022)

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