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Reflection

My name is Mia Wiles, student number 2306399 and in this presentation, I will be reflecting upon my John Muir Award experience and critically evaluating how these experiences support the principals of early years childhood education for sustainability.

My journey began with discovering the incredible biodiversity within my own back garden, a space I had previously taken for granted. I spent time identifying the many species of plants and trees growing in our garden, many of which were self-seeding. This sparked my interest in how unmanaged spaces, often viewed as messy or unkempt, can be essential for ecological diversity. As I documented plant species, I also began observing the bees that frequently visited. I learned about some of the bee species common in South Wales, such as the red-tailed bumblebee, the early bumblebee, and the white-tailed bumblebee. This awareness of pollinators encouraged me to pay closer attention to the plants they preferred and the times of day they were most active, highlighting their essential role in sustaining local ecosystems.

As part of the conservation element of the award, I worked with my dad to build a hedgehog den and a bug hotel. This hands-on activity was especially meaningful, most importantly, it helped me see how environmental education can be rooted in everyday spaces and family traditions. My garden became not just a site of learning, but a living archive of memories, values, and evolving sustainability practices. Working alongside my dad and hearing stories from my grandparents gave me a renewed appreciation for how deeply personal our relationship with nature can be, and how these experiences can shape our attitudes toward conservation and care.

This experience also allowed me to reflect on how small-scale, local actions, like building a hedgehog den or identifying native pollinators, can contribute meaningfully to larger ecological systems. By understanding the interconnectedness between the insects in my garden and broader environmental health, I developed a more nuanced appreciation of sustainability. Moreover, the process of documenting and sharing my learning journey encouraged me to think critically about how we communicate environmental values to others. It highlighted the importance of storytelling, heritage, and emotional connection in promoting sustainability, not just facts or scientific data.

Ultimately, the John Muir Award challenged me to look differently at the space I inhabit and inspired me to take responsibility for its care. It deepened my ecological awareness, strengthened my family bonds, and reaffirmed the value of hands-on learning. Going forward, I am motivated to continue these practices and to seek ways to share this knowledge with others, particularly younger children so that they too can form meaningful relationships with nature.

Importantly, this experience has also influenced my long-term personal aspirations. It has made me realise how vital access to green space is for wellbeing, learning, and sustainability, therefore, as a result, I now feel strongly about continuing my family's gardening legacy.

Critically evaluating how undertaking experiences in the John Muir award supports the philosophy and principles of early childhood education for sustainability.

Froebel, Pestalozzi: Learning through senses

According to Hoskins and Smedley (2019) Froebel's early years' philosophy emphasised learning through play, nature immersion, and sensory engagement, Teichert and Helbig (2024) agree by maintaining that Froebel advocated self-activity as essential to early learning. Waite, *et al.* (2020) insist that the discovery and exploring stages as part of the John Muir Award, enable young children to observe wildlife, feel textures, and learn through active senses, which Jeffs and Ord (2018) show as mirroring Froebel's principles of sensorial knowledge. Accordingly, Colvin and King (2018) state that Pestalozzi also emphasised learning through senses, where Beery and Jørgensen (2018) show that conservation tasks satisfy the senses of children and foster effective communication skills, while building understanding about the world around them.

Dewey: Learning through experiences

Landorf and Wadley (2022) persist that Dewey viewed education as learning through doing, in real-world contexts, where reflection and experience must be combined. Dunkley and Smith (2022) claim that children participating in the John Muir Award engage with authentic objects and experiences, for example, identifying species, mapping habitats, conserving through practical tasks, then proceed to reflect critically through discussions, drawings, and sharing insights with peers. This therefore aligns with Dewey's notion of inquiry-based learning, where Indrašienė, *et al.* (2023) state that experience and

reflection give children the opportunity to take part in decisions that affect them, while developing critical thinking.

Reggio Emilia: Place-based pedagogy

Theodotou and Aden (2019) show that the Reggio Emilia approach celebrates the hundred languages of children and encourages multiple expressive modes. Kaiser (2023) insists that when children share as part of the John Muir Award, it often involves creative outputs, such as photographs, storytelling, art installations, which reflect Reggio's multimodal documentation. Additionally, place-based pedagogy, for example Wales' concept of 'cynefin' or sense of place is activated as children learn to attach meaning to local green spaces, seeing them as sites of identity, belonging, and ecological responsibility (Welsh Government, 2022).

Inquiry and Critical Thinking

Through taking part in the John Muir Award and participating in hands-on fieldwork like identifying species and creating maps, Dunkley and Smith (2022) show that children are encouraged to ask meaningful questions, where practitioners guide these explorations toward understanding human impact, environmental care, and shared responsibility. A case study in Glasgow and Vietnam primary schools by Phuong (2022), shows how students reclaimed messy urban spaces within their environment. Furthermore, through co-creating poetry and planting together, the children developed critical awareness and took transformative action to improve the site.

Policy and Sustainable Action

In Wales, the *Well-being of Future Generations (Wales) Act 2015* promotes goals like sustainable communities, resilience, and health. Powell (2023) argues that conservation projects, such as planting pollinators, bug hotels, and litter picking as part of the John Muir Award directly address these objectives by building environmental stewardship, social cohesion, and wellbeing and area pride.

Areas for Development

While the John Muir Award's environmental impact is significant, it presents several areas for critical scrutiny.

Gaps in Socioeconomic and Cultural Integration

A critical comparison of early childhood education theories, learning approaches, and the Curriculum for Wales (Welsh Government, 2022) reveals both alignment and tension in how sustainability is understood, delivered, and experienced by young learners. Classic theorists such as Froebel, Dewey, and Steiner provide foundational support for experiential, nature-based, and holistic education as stated by Meyer (2020). Moreover, Froebel emphasised the unity of life and saw nature as the child's first educator, arguing that learning must begin with tangible, sensory experience and grow outward into abstract thought (Flemig and McNair, 2022). Luff (2018) suggests that Dewey similarly advocated for experiential learning, situating knowledge acquisition within real-world, meaningful contexts. Therefore, as Howe (2022) argues that according to both theorists, education was inherently connected to the social and ecological environment.

The new curriculum for Wales (Welsh Government, 2022), reiterates these ideals in its four purposes, seeking to create ethical, informed citizens who show commitment to the sustainability of the planet and ambitious, capable learners who are enterprising and creative. Moreover, Teichert and Helbig (2022) maintain that these principles are consistent with Froebelian and Deweyan approaches, as they place the learner at the centre of their own learning whilst emphasising the development of critical, compassionate global citizens. Binetti (2020) claims that Steiner's educational philosophy also shares this emphasis, particularly through his notion of head, heart, and hands, encouraging balanced intellectual, emotional, and practical development. King (2023) continues by stating that Steiner's belief in spiritual connection to nature and seasonal rhythms is mirrored in the John Muir Award's stages, which honour the cycles and rhythms of the natural world through acts of discovery, care, and reflection.

In practice, however, tensions emerge between theory, policy, and curriculum implementation. While the Curriculum for Wales (Welsh Government, 2022) provides space for schools to design locally responsive, cross-disciplinary learning through the Areas of Learning and Experience, including Health and Well-being and Science and Technology, Huckle (2022) argues that it does not always ensure consistent depth of ecological understanding or sustainability action. The John Muir Award, rooted in deep ecological engagement and place-based practice, fills this gap by offering a structured, progressive model of environmental learning that builds knowledge, values, and action. Moreover, Nair (2019) claims that the John Muir Award resonates strongly with Forest School pedagogy, which values child-led exploration, risky play, and long-term outdoor immersion. However, Murphy (2023) claims that Forest School differs by offering more open-ended, emergent inquiry, whereas the John Muir Award can lean toward structured, outcome-driven tasks. Moreover, Powell (2023) persists that this creates a philosophical difference, while the John Muir Award aligns with policy in terms of structure and

assessment, especially under the curriculum for Wales' progression steps, it may risk undervaluing child-led curiosity unless educators actively adapt it to remain responsive. Furthermore, Aljabreen (2020) asserts that while Reggio Emilia and Montessori methods emphasise autonomy, multimodal expression, and relational learning, these pedagogies prevent over-scaffolding or adult-led instruction. Therefore, Dunkley and Smith (2022) indicate that if the John Muir Award's challenges are delivered prescriptively rather than dialogically, it can risk contradicting the very inquiry-based, hand-on learning that underpins the Curriculum for Wales (Welsh Government, 2022) and these foundational pedagogies.

Additionally, as asserted by Glover (2023) the curriculum for Wales (Welsh Government, 2022) commitment to cross-cutting themes, such as the Global Sustainable Development Report (2023) and the *Well-being of Future Generations (Wales) Act 2015* suggests a move toward an integrated, futures-oriented pedagogy. However, Huggins and Evans (2018) show that without clear indicators or educator training, there is a risk that sustainability becomes a superficial add-on rather than a core principle. Therefore, Jones (2018) indicates that here, the John Muir Award provides a concrete, accessible framework for applying sustainability through hands-on action, interdisciplinary thinking, and community engagement. Although the John Muir Award powerfully advances environmental responsibility as argued by Van Dyke (2024), Mathias, Krings and Teixeira (2023) persist it may insufficiently address the broader social justice and economic strands of sustainability unless teachers intentionally include them. Post-humanist theorists, as argued by Fall (2019), challenge both traditional and policy-led curricula by fostering child–nature–world relationships that resist functionalism. In this sense, Myers, *et al.* (2024) suggest that the Curriculum for Wales (Welsh Government, 2022) and the John Muir Award remain grounded in human-centred models, unless practitioners include ideas and conversations about how people are related to nature and not superior to it.

In conclusion, the Curriculum for Wales (Welsh Government, 2022) provides a flexible and promising framework for education for sustainability, especially when enriched by experiential models like the John Muir Award and underpinned by critical pedagogical theory. However, the practical challenge lies in how educators navigate and mediate between structured curriculum expectations, diverse pedagogies, and the unpredictable richness of natural learning environments.

The John Muir Award, therefore, provides a clear, research-informed pathway for early childhood education for sustainability. It aligns strongly with pedagogical thought from Froebel's sensory, play-based learning, Dewey's experiential inquiry and reflection, and Forest School methods. Evidence from studies shows real-world impact, for example, higher attainment, wellbeing, inclusion, and

environmental care. Furthermore, the John Muir Award is included in policy frameworks such as *Well-being of Future Generations (Wales) Act 2015* and the Global Sustainable Development Report (2023) (Department of Economic and Social Affairs, 2023) reinforcing its importance.

However, to fulfil its potential, practitioners must integrate socio-cultural citizenship, structural inclusion, and emergent inquiry, ensuring that sustainability education fosters not just environmental responsibility, but a socially just, inclusive, and globally connected form of citizenship.

Thank you very much for the opportunity to present, if there are any questions about the topics discussed, please do not hesitate to contact me. Thank you.

Reference List

Aljabreen, H. (2020) 'Montessori, Waldorf, and Reggio Emilia: A comparative analysis of alternative models of early childhood education', *International Journal of Early Childhood*, 52(7), pp. 337-353. DOI: <https://doi.org/10.1007/s13158-020-00277-1> (Accessed: 2nd July 2025).

Beery, T. and Jørgensen, K. (2018) 'Children in nature: Sensory engagement and the experience of biodiversity', *Environmental Education Research*, 24(1), pp. 13-25. DOI: <https://doi.org/10.1080/13504622.2016.1250149> (Accessed: 24th June 2025).

Binetti, G. (2020) *Steiner education: Freedom, spirituality and creativity*. PhD Thesis. University of Glasgow. Available at: <https://theses.gla.ac.uk/81642/> (Accessed: 2nd July 2025).

Colvin, R. and King, K. (2018) 'Dewey's education heritage: The influence of Pestalozzi', *Journal of Philosophy & History of Education*, 68(1), pp. 45-54. URL: <http://www.journalofphilosophyandhistoryofeducation.com/jophe68.pdf#page=80> (Accessed: 24th June 2025).

Department of Economic and Social Affairs (2023) *Global Sustainable Development Report (2023)*. Available at: <https://sdgs.un.org/goals> (Accessed: 3rd July 2025).

Dunkley, R. and Smith, T. (2022) 'Conversations with practitioners 3: Toby Clark', *Unfamiliar Landscapes*, 9(2), pp. 515-535. DOI: https://doi.org/10.1007/978-3-030-94460-5_21 (Accessed: 24th June 2025).

Fall, W. (2019) 'What is nature?', *International Journal of Early Childhood Education*, 7(1), pp. 26-39. URL: <https://eric.ed.gov/?id=EJ1233589> (Accessed: 3rd July 2025).

Flemig, S. and McNair, L. (2022) 'Nature, nurture and the space between: Lessons from Froebel for the early years', *Global Education Review*, 9(2), pp. 51-66. URL: <https://eric.ed.gov/?id=EJ1353648> (Accessed: 1st July 2025).

Glover, A. (2023) 'Education for sustainable development: Policy and practice in Wales', *SDG's in the European Region*. 2(1), pp. 1-23. DOI: https://doi.org/10.1007/978-3-030-91261-1_2-1 (accessed: 3rd July 2025).

Hoskins, K. and Smedley, S. (2019) 'Protecting and extending Froebelian principles in practice: Exploring the importance of learning through play', *Journal of early Childhood Research*, 17(2), pp. 73-87. DOI: <https://doi.org/10.1177/1476718X18809114> (Accessed: 24th June 2025).

Howe, S. (2022) '(Re)connecting pedagogies" Examining the links between Froebelian and Common Worlds approaches to environmental learning', *Global Education Review*, 9(2), pp. 38-50. URL: <https://ger.mercy.edu/index.php/ger/article/view/583> (Accessed: 1st July 2025).

Huckle, J. (2022) 'Critical realism: The philosophy of knowledge that is missing from the Curriculum for Wales', *International Journal of Developmental Education and Global Learning*, 14(2), pp. 27-41. DOI: <https://doi.org/10.14324/IJDEGL.14.2.02> (Accessed: 2nd July 2025).

Huggins, V. and Evans, D. (2018) *Early childhood education and care for sustainability*. Oxon: Routledge.

Indrašienė, V., Jegerlevičienė, V., Merfeldaitė, O. and Penkauskienė, D. (2023) 'Critical reflection in students' critical thinking teaching and learning experiences', *Sustainability*, 15(18), pp. 17-42. DOI: <https://doi.org/10.3390/su151813500> (Accessed: 24th June 2025).

Jeffs, T. and Ord, J. (2018) *Rethinking outdoor, experiential and informal education*. Oxford: Taylor & Francis.

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ECEY6005
Word count: 1932

Jones, D. (2018) *A Gramscian analysis of religion and nature in the writings, life, and legacy of John Muir*. Masters Thesis. Missouri State University. Available at: <https://bearworks.missouristate.edu/theses/3329/> (Accessed: 3rd July 2025).

Kaiser, D. (2023) *Affirming the rights of emergent bilingual and multilingual children and families*. New York: Routledge.

King, D. (2023) *Guardians of the valley: John Muir and the friendship that saved Yosemite*. London: Simon and Schuster.

Landorf, H. and Wadley, C. (2022) 'The importance of John Dewey's philosophy for global learning theory and practice', *Social Studies Research and Practice*, 17(1), pp. 6-18. DOI: <https://doi.org/10.1108/SSRP-09-2021-0027> (Accessed: 24th June 2025).

Luff, P. (2018) 'Early childhood education for sustainability: Origins and inspirations in the work of John Dewey', *Education 3-13*, 46(4), pp. 447-455. DOI: <https://doi.org/10.1080/03004279.2018.1445484> (Accessed: 1st July 2025).

Mathias, J., Krings, A. and Teixeira, S. (2023) 'Which environmental social work? Environmentalisms, social justice, and the dilemmas ahead', *Social Service Review*, 97(3), pp. 1-27. URL: <https://www.journals.uchicago.edu/doi/abs/10.1086/724522> (Accessed: 3rd July 2025).

Meyer, J. (2020) *Exploring the conceptual framework and knowledge base of nature-based experiential education*. Doctorate Dissertation. Montana State University. Available at: <https://www.proquest.com/openview/2fe76b59ca5836dcfd68e298dec0ef7b/1?pq-origsite=gscholar&cbl=51922&diss=y> (Accessed: 1st July 2025).

Murphy, M. (2023) *A bio-ecological exploratory case study of the Forest School approach to learning and teaching in Irish primary school curriculum*. Doctorate thesis. Mary Immaculate College. Available at: <https://www.dspace.mic.ul.ie/handle/10395/3124> (Accessed: 2nd July 2025).

Myers, D., Evans, E., Campbell, J., Davies, M. and Swaithe, W. (2024) 'Evaluating the implementation of curriculum reform: The perspectives of Welsh teachers navigating the new health and wellbeing

2306399
ECEY6005
Word count: 1932

areas of learning experience', *Journal of Education for Teaching*, 51(1), pp. 6-27. DOI: <https://doi.org/10.1080/02607476.2024.2371308> (Accessed: 3rd July 2025).

Nair, S. (2019) *Informal and formal learning and the pursuit of environmental education in young children: The role of Forest School*. Masters Thesis. University College London. Available at: <https://discovery.ucl.ac.uk/id/eprint/10078702/> (Accessed: 2nd July 2025).

Phuong, T. (2022) *Children's experiences of nature in primary school architecture*. Doctorate Thesis. University of Strathclyde. Available at: <https://stax.strath.ac.uk/concern/theses/st74cq91d> (Accessed: 26th June 2025).

Powell, Z. (2023) *The methods of Muir: The roles of science in John Muir's preservation*. Masters thesis. California State University. Available at: <https://www.proquest.com/openview/3ea74165f287491429e485cf6455301f/1?pq-origsite=gscholar&cbl=18750&diss=y> (Accessed: 26th June 2025).

Teichert, L. and Helbig, S. (2014) 'Fredrich Froebel', *The Palgrave Handbook of Educational Thinkers*, 7(2), pp. 371-387. DOI: https://doi.org/10.1007/978-3-031-25134-4_42 (Accessed: 24th June 2025).

Theodotou, E. and Aden, F. (2019) 'Reggio Emilia and the arts approach: Two exceptional examples of multimodal learning in early years', *Journal of Global Education and Research*, 3(2), pp. 158-167. URL: <https://repository.uel.ac.uk/item/8754v/1000> (Accessed: 26th June 2025).

Van Dyke, N. (2024) *John Muir, Gifford Pinchot, and ethical responsibility: The origins of American environmentalism*. Masters Thesis. California State University.

Waite, s., Rutter, O., Fowle, A. and Jones A. (2020) *Outdoor learning research*. London: Routledge. *Well-being of Future Generations (Wales) Act 2015*, c. 2. Available at: <https://www.legislation.gov.uk/anaw/2015/2/contents> (Accessed: 26th June 2025).

Welsh Government (2022) *Curriculum for Wales*. Available at: <https://hwb.gov.wales/curriculum-for-wales/introduction-to-curriculum-for-wales-guidance/> (Accessed: 26th June 2025).