

Education for Sustainable Development in Early Years Practice in Wales

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Why is sustainable thinking important?

Change within global issues must be addressed as this is threatening the world's living species including wildlife and mankind as in modern society, our world faces complex, interconnecting lifestyle changes such as climate change, carbon footprints, water quality and deforestation and many more issues which will affect future generations in regards to having the best quality of life. Dymant et al. (2012) Furthermore, Hepbasli (2008) states that throughout our modern urban existence, our lives have consumed more natural resources that has harmed our planet, an example of this is streetlights and central heating.

Preventing Global issues

Davis (1998) suggests that one of the greatest threats to society and future generations is to equip children with the positive values, attitudes and knowledge relating to finding solutions to rethink and positively change current patterns of action to secure healthy and sustainable lives for all. This will only be achieved if early years' education integrates sustainability in a holistic manner, thus agreeing with the early philosophers such as Froebel, Montessori, and Piaget. On the other hand, Sterling (2001) recognises that most mainstream education settings produce children with attitudes to become unsustainable thinkers by firmly sticking to the norms of tick sheet exercises that demotes the ability to explore alternatives to become sustained thinkers in regards to becoming a global citizen. Incorporating ESDGC alongside the foundation phase should be a relatively easy task as suggested by Jones (2013) as the Foundation Phase Curriculum should incorporate a better recognition that children's learning is holistic based which will deliver a more appropriate provision by offering experiential activities that combine sustainable thinking and areas of

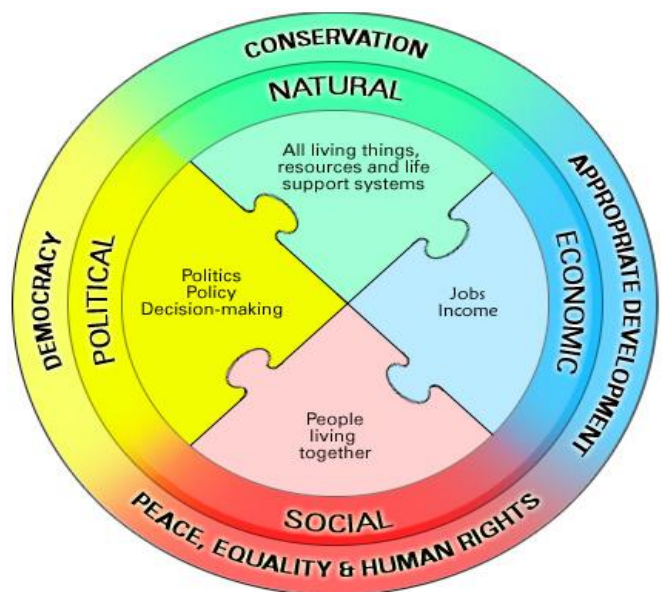
learning linked to the curriculum that provides children with the insight of learning in a meaningful and engaging way. This links to the philosophy of Piaget as Kolb (2015) recognises that this theory is based upon children learning through their environment where knowledge is created through the transformation of experiences, Piaget described children as little scientists that need to explore their environments in order to gain new concepts to make sense of the world. However, Welhousen (2002) recognise that educators find classroom and indoor based learning much more important than the experiences that is created through outdoor play, one of the main reasons behind this is that there is less attention in regards for planning for the outdoors compared to the indoor environment therefore, teachers spend less planning time organizing and producing materials for outdoors as to time spent within the indoor environment. Based on these findings, it shows that educators spend less time and attention to assessing play outdoors as compared to evaluating children's indoor activities. Comparing Wales curriculum of implementing indoor and outdoor environment, McGurk (2015) highlights that the Scandinavian approach to education differs from the Welsh curriculum as Scandinavian children spend most of their education outdoors where they are their own facilitator to learning and experimenting, from this children are able to take risks and experiment independently. However, Howard (2015) recognises the challenges of implementing outdoor based learning as there is a concerning factor in regards to the health and safety regulations meaning that practitioners tend to steer away from risky play as in the UK practitioners have regular tests are inspected in relation to their teaching which does not exist in Denmark.

We as a society need to recognise and incorporate our youngest people for sustainable development, this is implemented through legislations as these focuses on balancing our needs to improve technologies and combining this with the protection of environments in regards to how others live. However, sustainability is not just about environment issues, this aspect also considers our health as a society to ensure no citizen is harmed through environmental legislations and examining the long term effects of what actions we take of how to improve and preserve our world for the future. (Cochrane, 2006.) On a global scale, Araujo Et Al. (2007) affirms that it is estimated that we use more than 40% of natural resources every year than what we put back in causing our world to deteriorate. However, Global Legislations will help to reduce this number as United Nations Educational, Scientific and Cultural Organisation (UNESCO) aims to promote international cooperation's with regards to communication, education and culture as it is recognised that sustainable development cannot be achieved by technologies, political or financial aspects alone, we as a society and global citizens have a duty to change the way we think and act to favor sustainable thinking, this is implemented throughout Education for Sustainable Development (ESD) as UNESCO is the leading agency for ESD which enables us to constructively address present and future global challenges and enables us to create a more sustainable and resilient society. (United Nations Educational, Scientific and Cultural Organisation, No Date)

United Nations (2015) states that UNESCO diagram shown is based upon that sustainable development is made up of four interconnecting topics which are social justice and fairness, Economic security and prosperity, policies and decision making and environmental quality. This diagram indicates that sustainable development cannot work effectively if all of these subjects are not included. An example of this

would be in aim 8 as this promotes sustained, inclusive and sustainable economic growth and a fair productive employment and decent work for all citizens Which can be seen through Fairtrade products as this supports the rights of a decent living wage for all (Fadeeva and Mochizuki, 2010). In regards to Fairtrade, Wales is one of the first fair trade nation, through this it is our duty and mission to make a difference to those in developing countries by ensuring a fair price wage for their produce and helping their families and communities to defeat their way out of poverty. (Welsh government, 2015).

UNESCO, 2002



What is Education for Sustainable Development and Global Citizenship?

Focusing on Wales, the Welsh Government (2017) recognises the Education for Sustainable Development and Global Citizenship (ESDGC) seeks to challenge learners in education sectors to see how each individual can contribute to the lives of others and to help them understand the impact of their choices of other people in regards to sustainable development

and global citizenship. This links closely to UNESCO values as United Nations Educational, Scientific and Cultural Organisation (2010) states that it is a human right to receive quality education for all which builds upon peace, eradicate poverty and drive sustainable development. This aspect also interlinks with the United Nations Convention on the Rights of the Child as article 28 and 29 highlights that each child has the rights to an education that fosters each child's development to develop their personalities, talents and abilities. (UNICEF, No Date) Bronfenbrenner ecological systems theory relates to this as this theory recognises that to best understand a child's development process, there must be an examination of the context of the individual's environmental influences which includes the interactions and relationships the child has and the identity and influence of culture and social contexts. (Evans, 2000) however Learning Theories (2017) recognises that there are flaws to this theory as there is not enough emphasis on the individuals own development such as recognising their own characteristics. The ESDGE is built around seven key themes which are the natural environment, Consumption and Waste, Climate Change, Wealth and Poverty, identity and culture, choices and decisions and health. The reason behind these topics is to produce society's future generations to foster an appreciation in regards to economic and social issues and to be equipped with the social and ethical context to develop critical thinking skills as educated citizens have the greater ability to make informed decisions on how to use resources and preserve the world. (Higher Education Funding Council for Wales, No Date).

Future generations

Davis (1998) recognises that there must be a starting point for future generations to be educated with knowledge and skills necessary to change current destructive patterns created by

past generations. Furthermore, Hirst and Tinney (No Date) states that the recognition of education plays a key role of sustainable development through linking children to changing the public's perspective on changing behavior patterns to sustain better lifestyles. According to Claricoates et al. (2012) The Welsh Government supports the motion of the future generation as it is required that sustainable development is to be placed at the core of all its operations, an example of this is implemented through the Government of Wales act 2006 as section two requires ministers to undertake decisions and actions to promote the economic, social and environmental well-being of Wales, including the outcomes within education sectors. To support this aspect, the Well-being of future generations act 2015 is the first of its kind in the world to bring together public bodies to consider the facts of the long term effects with working effectively with citizens and their communities and how the public can actively protect each other and how to suspect and prevent any future problems that may arise (Welsh Government, 2016). The core focus of this act is to improve social, economic, environmental and cultural wellbeing of Wales. From this Act, it has established a statutory Future Generations commissioner for Wales, the duty of this professional is to act as a 'guardian' for future generations with duties including meeting the needs of future generations and improving public bodies by identifying key opportunities to drive positive changes to improve the well-being of future generations in Wales. (Future Generations Commissioner for Wales, 2017). This further links to the ESDGC action plan for Wales 2006. Where this action plan aims to achieve that all students develop the skills to become an active global citizen, for this to be achieved through the development of an effective pedagogy and experiences. To achieve this the pedagogy will undertake a comprehensive programme

of continuing their professional development. (Sustainable Caerphilly County Borough, No Date).

ESDGC and the Foundation Phase

Boyd and Hirst (2016) highlights that for school sectors in Wales, ESDGC should not be seen as a separate subject to education, instead this should coexist between the Foundation Phase curriculum. The Common Core Understanding and Development of Education for Sustainable Development and Global Citizenship policy enables practitioners to develop strategic planning strategies to incorporate into the curriculum to embed practices with support from ESDGC principles to develop the knowledge of the role that education plays in regards to sustainable development and global citizenship. The ESDGC is embedded within the Foundation Phase curriculum as Welsh Assembly Government (2008) highlights that the ethos of ESDGC and the seven areas of learning from the Foundation Phase are all interlinked with the idea that children will be prepared for the 21st century, as from integrating ESDGC into the curriculum, children value the links to the environment and the people who live in this, also children look at the perspective of how the world works and how all the living things relate to each other which enables recognition to how the world is unequal, however, the world can be shaped and changed by the attitudes for these educated citizens. Therefore, through the foundation phase implementing outdoor play and experimentation, through one of the seven areas of learning which is Knowledge and understanding of the world, can give children opportunities to engage with nature from active learning through experimentation which will stimulate children's senses to create meaningful activities where children can explore and wonder about their environment. (Welsh Government, 2008).

This links to Dewey's theory as he expressed that there is an intimate relation of the processes of

experimentation and education where his ideas are against the traditional teacher lead approach including traditional classroom teaching, instead knowledge is based on understandings based upon past and current experiences throughout the use of the outdoor environment. (Georgia State University, 2017).

However, embedding ESDGC into the Foundation Phase curriculum has its challenges as Duhn (2010) recognises that childhood seems to be situated as a time of innocence which brings upon the barrier of misconceptions of children being too young to understand the issues of sustainable welfare which leads to the conclusion of questioning whether ecological sustainability should be implemented throughout the curriculum as this issue is considered too problematic for children to apprehend.

First hand experiences

Maynard and Waters (2007) highlights that there is one common link that connects the ESDGC, the Foundation Phase and the outdoor environment together, the concept of this is learning through first hand experiences, as the foundation phase approach promotes a play based method through the use of both indoor and outdoor environments with children's well-being, personal and social development at the curriculums core. Furthermore, the Welsh Government (2015) further suggests that children learn best through first hand experiential activities with play at the center of how children learn, through this concept, children can experiment, take risks solve problems and gives children the opportunity to develop an understanding of themselves. Through learning from the outdoors, this develops and promotes children's natural curiosity to explore throughout this setting. This relates to the Ethos of Montessori approach as Montessori (2017) includes that even though this approach is based from the indoor environment, this approach still applies to the Eco schools is strictly self-directed learning linking to

hands on learning and collaborative play which leads to deeper understanding of one's holistic development

Forest Schools within the Foundation Phase

According to Forest School Wales (2017) The Foundation Phase highlights the many benefits of learning outdoors where children can play and learn about their world at the same time. Therefore, the government has created a concept to interlink with the Foundation Phase curriculum, to steer towards practitioners delivering and achieving national curriculum targets as well as fully implementing the benefits of the Foundation Phase curriculum throughout the use of Forest Schools. From this opportunity children and parents can regularly use the outdoor environment for further practical and play based learning to gain understandings of sustainability and conservation. Furthermore, O'Brien (2007) identifies that throughout this concept there is increased levels of cognitive, Social and emotional behaviors that favor the child's holistic development. However, there is a concern to how often forest schools are implemented throughout the education sector as Forest Schools Wales (2017) states that there is a concern that children are having very little contact with woodlands and outdoor spaces, this is due to the concerns about safety and the increasing range of indoor activities that are now available for children. To ensure education sectors in Wales are fully committed to deliver sustainable thinking strategies, ESTYN inspectors focus on the performance of the continuation of implementing the ESDGC principles throughout mainstream education, the inspectors structure their opinions through the seven key areas highlighted from ESDGC and the UNESCO. (ESTYN, 2014). This has since been developed from ESTYN's baseline Report from 2006 as this report was based on the evidence that professionals did not have a clear understanding of the definition of the ESDGC

principles. Therefore, the Education for Sustainable Development and Global Citizenship: A Common Understanding for Schools' in 2008 was created to provide the schools with clear understandings of ESDGC and how to aid its delivery (University of Bath, 2017). This stands by Chalkley and Sterling (2011) concept as it is widely recognised that Education sectors are a key influence in preparing societies to shift towards a more sustainable ways of living thus practitioners have a high amount of pressure upon them in regards to implementing their knowledge and skills to educating the future generations. The Forest School programme interconnects with the Philosophy of Froebel as Infed (1997) states that Froebel is widely recognised for the influence of kindergardens and play, as he believed that humans are naturally productive and creative, thus the creation of environmental education which involved practical work, through engaging with the world it appears that the understanding unfolds hence the importance of play based learning.

Eco schools

Edwards and Mackenzie (2013) states that one programme that fully supports the ethos for sustainable development throughout education is the Eco school programme. The Eco Schools programme is designed for young people to engage with their environment by combining hands on experiences to allow individuals to reconnect with nature. furthermore, Alcarria et al. (2016) express that Environmental education should be viewed as a powerful advantage to enhance sustained knowledge as this is a permanent process that children and their communities share and grasp the interconnectedness of cultures, people and environments to motivate and prepare them for future environmental issues. Keep Wales Tidy (No Date) states that in order for a school

to achieve the eco school status, the school must follow and achieve seven steps which include the basis of community work and linking their work to the curriculum and eco code. The eco committee which is the driving force to deliver these topics are made up of staff, children, governors and parents with the idea that everyone can work together as a community to protect the environment and share sustainable thinking to provide a richer foundation to education. From this Keep Britain Tidy (No Date) highlights that the rewarding systems such as the green flag which is widely recognised for quality standards of maintaining ESDGC concepts within education will motivate schools to thrive and succeed to engage in sustainable thinking and lead to sustainable lives.

Keep Wales Tidy, No Date



Importance of Communities

Overall to maintain Sustainability and to create sustainable thinkers the main objective is for sustainable programmes to interlink with education curriculums which involves the whole community to participate to spread the positive thinking that Wales needs as agreed with Feng (2010) as the involvement of communities to ESDGC needs to be infused throughout education and life as partnerships with the community will ensure the success of ESDGC by supporting citizens by sharing the learning and by motivating other sectors to bring ESDGC to life. (Welsh

Assembly Government,2008) this links to the Reggio Emilia approach as Han et al. (2017) states that education that is centered around community involvement which will favor the development as a new way of educating from exchanging ideas to embed a more effective way of learning and teaching. However, According to Dillon et al. (2013). The challenge still remains to ensure that education is seen as a powerful tool by which sustainable development can be implemented throughout education frameworks. This is due to having a lack of connections between learning experiences in formal education where instead of learning through community involvement, children tend to stay in classrooms to learn, ignoring the fact that many issues can be resolved by social actions with others. Vygotsky's philosophy disagrees with Dillon's judgement as it is argued that it is a result of social interactions between the child and their community that the child acquires the skill and knowledge of learning about the world surrounding them. This philosophy supports the motion of equal minds as this would create an atmosphere where practitioners, children and their community to have the same attitudes to help preserve and protect our environments. (Clarke et al. 2011)

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