

Sustainable Development: The opportunities and challenges of integrating into early years' practice.

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Introduction.

This article will discuss and critically analyze how early years' practice in Wales integrates education on sustainability and global citizenship into the Foundation Phase and the Education for Sustainable Development and Global Citizenship (ESDGC). It will explore the benefits of sustainable education for children and practitioners as well as the challenges while comparing these ideas to the preschool curriculum in Sweden.

According to Adams (2009) there is no single definition of sustainable development because it has been defined in many ways. However, the most recent definition is quoted in Our Common Future also known as the Brundtland Report (1987) which states sustainable development 'meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987 cited in Adams, 2009: 5). Global citizenship is described as individuals who are aware of and understand the world and their role in their community to make the world more sustainable (Oxfam, no date). Davis (1998), Hagglund and Samuelsson (2009) and McNichol et al (2011) all emphasized that education has an important role in teaching people about sustainability, creating informed citizens regarding environmental issues within their world, which can help encourage them to make sustainable lifestyle choices, caring for the environment and improve the living standards for future generations.

Siraj-Blatchford (2009) believes that educating young children in sustainability can help to achieve sustainable development and lives. This is because according to

Davis (2009) the early years of a person's life are the most important due to the learning and development that takes place. During this time, children develop their knowledge, values and skills, which provide the foundation for their lifestyle and Tinney (2010 cited in Tinney and Hirst, 2018) both mention that there are similarities between sustainable development and early years' education, both have a holistic approach to learning while emphasizing the importance of interdisciplinary learning, experiential learning, active participation, discovery and positive relationships with parents and the community. These factors show that education and young children play an important part in changing attitudes, which can contribute to living a sustainable life today and in the future (Tinney & Hirst, 2018). It is important to engage and educate children regarding sustainability because they are future citizens, they need to have the knowledge, understanding and skills which can help to develop positive life-long dispositions to take care of the environment and live in a world that is changing frequently Duhn (2012). It is a child's right to have a healthy life and education which will prepare them for the future, this is shown in legislation such as Every Child Matter which states that children have the right be healthy, safe and make a positive contribution to society (Collins, 2008). These rights are also shown in the United Nations Convention on the Rights of a Child (UNCRC) which are divided into 54 articles (Unicef, no date). The articles related to this are Article 28 which states children have a right to education, Article 24 which states children have a right to good health and Article 12 which states children have a right to have their views heard and respected (Unicef, no date). All professionals and organizations have a legal responsibility to respect and follow these laws to ensure children live a happy life, learn, grow and achieve to contribute to society (Children's Rights Alliance for England, 2017).

Education for sustainability has been carried out in other education sectors such as schools, colleges and universities (Elliot and Davis, 2009). However, Davis (2009) and McNichol et al (2011) mention that the early childhood sector has been slow to engage into education for sustainability. According to Elliot and Davis (2009) and Duhn (2012) adults describe childhood as a time of innocence, they also have an

image that children are innocent, vulnerable and immature who are not cognitively prepared to learn about sustainability and environmental issues. Such views prevent children from engaging with their environment which has an impact on them becoming informed citizens which will affect their life choices, care and respect for the environment (Elliot and Davis, 2009: Engdahl & Rabusicova, 2010). Siraj-Blatchford et al (2010) argues this because they believe very young children are capable of learning about environmental issues. Palmer and Suggate (2004 cited in Engdahl and Rabusicova, 2010) agree with this statement as results from a longitudinal study that took place in the United Kingdom showed children as young as the age of four have the knowledge and understanding of the effects of environmental change on animals and humans. Siraj-Blatchford and Huggins (2015), Duhn (2012) and Tinney (2010 cited in Tinney and Hirst, 2018) also support this statement as they all provide evidence that sustainable thinking and learning can happen if the opportunities provided are suitable for their age and stage of development.

Benefits of Sustainable Education for children.

The importance of outdoor learning to children's learning and development has been highlighted and placed in early years' education practice for many years (Elliot and Davies, 2009). Theorist such as Froebel and the McMillian sisters mentioned the importance of the outdoor environment for children's learning and development as it allows them to explore, improve their health and motivates them to learn about their world (Conkbayir and Pascal, 2014: Gordon and Browne, 2017). The curriculum in Wales known as the Foundation Phase has a learning area called Knowledge and Understanding of the world which encourages children to investigate and use their curiosity to develop their views of the world (Department for Education and Skills, 2015). Ozar (2012) believes that children are curious about the world and have the motivation to discover and question what they see. Wilson (2012: 45) agrees with this statement saying, 'Children have an inborn sense of wonder and a strong desire to explore the world around them'.

Education in sustainability benefits children in many ways (Siraj-Blatchford, 2009) and education in sustainability and global citizenship can help them to think critically and creatively about their world and develop their communication skills and team working (Bennell and Norcliffe, 2010). Children also understand how the world and natural systems work which can help to build a connection between them (Lewis et al, 2010); this can also help them make connections between their actions and how they affect the environment, different people and countries around the world (McNichol et al, 2011). It allows children to learn that their lives rely on natural resources and how important it is to find ways to use them wisely (Samuelsson and Kaga, 2008). Children can also learn about and experience different cultures and people who have different views of the world, this can help them to learn about respect in their community (Samuelsson and Kaga, 2008): Collins, 2008). Children learning about sustainability develops their understanding and appreciation for the world which will lead to wanting to take care of and protect the world they live in and encourage them to make sustainable life choices (Wilson, 2012). It also prepares children for life because it can make them grow into informed and responsible adults who are aware of environmental issues within their world and their role in life to protect and improve the world (Elliot and Davies, 2009: Lopez-Robertson, 2013).

Benefits of Sustainable Education to Practitioners and their role in promoting education for Sustainability.

The benefits of practitioners learning about sustainability and global citizenships are similar to the benefits for children (Samuelsson and Kaga, 2008). Practitioners learn about the world and how their actions affect the world which leads to them wanting to take care of their world and make it better for today and future generations (Boyd et al, 2017). There is emphasis on practitioners having a good knowledge base and understanding of sustainability and global citizenship (Bennell and Norcliffe, 2010). This is because previous knowledge and experience regarding sustainability can influences their interest, attitudes and behaviors toward the teaching of sustainability

and the environment (Wilson, 2012; Horsely and Bauer, 2010). Davis (1998) states the importance of early years' practitioners being good role models because their attitudes and interests towards sustainability shape children's knowledge, values and attitudes towards it. Horsely and Bauer (2010) and Peterson and Warwick (2015) both agree with this statement because they both believe early years' practitioners must be knowledgeable and passionate about sustainable development which can help them become effective leaders and support children with their learning, which can help children become knowledgeable about their world. However, practitioner's knowledge could affect the way they view and think about education for sustainable development, Elliot & Davies (2009: 70) mention that the tradition of outdoor play remains in early years' practice and practitioners understand the importance of this, however they believe that education for sustainability is 'only about venturing outdoors to play and nothing more'. Davies et al. (2014) and Williams and Brown (2012) both stress that education for sustainability is more than allowing children to play and explore the outdoor environment, it allows children to build a connection and appreciate the natural world; it helps them to develop awareness that they are a part of the world which relies on them to look after it and that their actions have consequences, this leads to children thinking and making sustainable choices in their life. This relates to Bandura's theory of Social Learning, Bandura believed that children learn from role models in their life such as parents and teachers through observation and this would shape their behaviors and attitudes towards a topic (Johnston and Nahmad-Williams, 2009).

Practitioners have a role to work in partnership with children, parents and the wider community, Lopez-Robertson (2013) and Davis and Elliot (2014) believes to make changes, everyone within the community must work together to problem solve and find solutions and make decisions that are best for the whole community. This is highlighted in the Well-being of Future Generations (Wales) Act 2015, which encourages public bodies such as the local authorities to work more effectively with people in the community to look at being sustainable in the long-term and preventing barriers to achieving the seven goals to create the Wales everyone wants to live in

(Welsh Government, 2015). Practitioners having a close relationship with children, parents and the community can support the learning of everyone involved (Engdahl and Rabusicova, 2010; Tinney and Hirst, 2018) as it supports skills such as problem solving, communication and team work (Bennell and Norcliffe, 2010). In addition, different ideas, viewpoints, values and beliefs can be shared during discussions which allows everyone to see sustainability from different perspectives and learn something new, while understanding the importance of inclusion, diversity and respect (Peterson and Warwick, 2015; Tinney and Hirst, 2018). This relates to Vygotsky's Social Constructivist theory, Vygotsky believed children's cognitive development was promoted through interacting with other children and more knowledgeable adults, helping them to develop their own knowledge and view of the world (Gray and MacBlain, 2015).

Opportunities available to integrate Education for Sustainability in early years' practice.

Early Years Curriculum – Foundation Phase / Education for Sustainable Development and Global Citizenship (ESDGC).

In Wales, the curriculum used for teaching and learning is known as the Foundation Phase (Department for Education and Skills, 2015). The curriculum is for children between the ages of three and seven years old, it is based on the holistic development of each child and their skills and it encourages building on their previous experiences and knowledge (Department for Education and Skills, 2015). When comparing the Foundation Phase to the curriculum in Sweden called the Curriculum for the Preschool Lpfö 98 (Skolverket, 2010) there are clear similarities. Both curriculums take a holistic view towards children's learning and Sweden's curriculum also has an experience-based approach (Lomander and Samuelsson, 2015). However in Sweden, children between the ages one to six years old attend preschool and do not attend compulsory education until they are seven years old (Sweden Sverige, 2017). This is because the Swedish approach believes that early

experiences of a child's life within the family home are the most important for their cognitive development and learning, this approach focuses on children spending time with their family as it is beneficial for their health and education (Ozar, 2012). When the children attend preschool, they have already had experiences and developed attitudes and ideas which the practitioner must build on like in the Foundation Phase, but they do not learn formal instructions such as reading and writing until the age of seven unlike the Foundation Phase where they start at the age of four/five years old (Sweden Sverige, 2017: Ozar, 2012).

The Foundation Phase has seven areas of learning, each area has a set of outcomes that children should achieve for that school year, each learning area interlinks and encourages children to build on their knowledge and experiences through discovery, experiential learning and co-operative play (Department for Education and Skills, 2015) There is one learning area in the Foundation Phase called Knowledge and Understanding of the World, this learning area gives children the opportunity to learn about their world through using their curiosity and senses, this is also done from children exploring, experimenting and questioning their world which helps them to increase their knowledge and awareness (Department for Education and Skills, 2015). Also in this learning area, children are encouraged to find the answers to their questions independently through using their imagination and creativity which promotes their motivation to learn about the world. In doing these things children develop respect and caring attitudes towards the environment, living things and the different cultures within the world (Department for Education and Skills, 2015). The Foundation Phase also emphasizes the important of outdoor learning through all areas of learning (Welsh Assembly Government, 2007). However, outdoor learning is not present in all activities practitioners plan, and there can be difficulty planning and teaching subjects such as mathematics which leads to most activities related to this subject being planned indoors (Boyd and Hirst, 2016). The curriculum in Sweden provides goals which the practitioner must work towards when educating children, this means that there is no pressure to learn a subject or skill by a certain age compared to the Foundation Phase (Samuelsson and Kaga, 2008). These goals emphasize the issues related to nature and the environment, like

the Foundation phase it encourages children to explore and use their imagination, creativity and curiosity to learn and connect with their world which can help them to develop empathy and a need to care for the environment and understanding the importance and responsibility of this (Samuelsson and Kaga, 2008: Skolverket, 2010).

Alongside the Foundation Phase, there is a cross-cutting theme within the curriculum known as the ESDGC (Department for Children, Education and Lifelong Learning and Skills (DCELLS), 2008a), which looks at people's everyday lives and making links throughout the world in terms of economy, society and environmental issues to prepare them for life in the twenty-first century (DCELLS, 2008). There are seven themes to the ESDGC which all explore topics related to real life which encourages children to learn about sustainability and links with the world (DCELLS, 2008a). The DCELLS (2008) and Estyn (2014) mention that the ESDGC should not be viewed as an additional subject because it is linked into the curriculum. However, many practitioners view the ESDGC as separate subject within the Foundation Phase (Tinney and Hirst, 2018), because of this practitioner feel there is limited time and space to teach all areas of the ESDGC while teaching children the learning outcomes for the Foundation Phase (Tinney and Hirst, 2018). This can lead to practitioners prioritizing the Foundation Phase outcomes which impact on children's understanding and awareness of environmental issues and sustainability (Boyd et al. 2017).

The ESDGC encourages experiential learning, participation, diversity and whole-school approach (DCELLS, 2008a). A whole-school approach involves participation from practitioners, children, parents and the wider community to discuss, question and make changes to improve the school and local community (Whitebread and Coltman, 2015). Allowing children to participate in these discussions can allow their ideas and voices to be heard and it also helps children to develop skills such as respect, teamwork, communication, critical thinking and decision-making (Bennell and Norcliffe, 2010: Tinney and Hirst, 2018). In Sweden, they believe that children are active participants who can learn and take care of the environment and in the

curriculum, they engage in the outdoor environment during activities which gives them the opportunity to be curious, explore and experiment to develop their own view and opinions of the environment (Samuelsson and Kaga (2008). This relates to Piaget's theory of cognitive development, Piaget believed that children were little scientists who learn through experimenting and having hands-on experiences to allow them to actively engage with the world around them to make sense of it (Cohen and Waite-Stupiansky, 2017). The Swedish approach believes from children developing their own views and opinions about the environment they can contribute to discussions related to environmental issues within the setting. The curriculum also mentions the importance of children voice's being heard and learning through communication and co-operating to develop their social skills, problem-solve, understand and respect that people have different opinions about the environment (Skolverket, 2010: Lomander and Samuelsson, 2015).

Professional development and reflection is encouraged in the ESDGC (DCELLS, 2008a) and in the curriculum for Sweden (Skolverket, 2010). Estyn who are the inspecting board for education sectors in Wales inspect how schools and teachers implement the ESDGC and provide advice about how to improve their practice and approaches to implement it more effectively (Estyn, 2006). However, there have been issues with practitioners teaching children about sustainability and global citizenship (Bennell and Norcliffe, 2010). A report from Estyn (2014) found out that teachers did not have a consistent or clear understanding of the meaning, benefits and purpose of the ESDGC. As a result, this led to the Welsh Assembly Government creating the Education for Sustainable Development and Global Citizenship – A document providing a common understanding for schools and practitioners with clear information and guidance about the ESDGC and the values, skills, understanding and attitudes that should be promoted to prepare children for life within the twenty-first century (Estyn, 2014). The curriculum in Sweden emphasizes the importance of practitioners reflecting on issues and experiences within practice to enhance their personal practice (Lewis, 2010). This is done independently or in collaboration with other practitioners who listen, value and respect each other's viewpoints with the aim

of improving the quality of their practice and develop positive working relationships (Rodrigues, 2005: Lewis, 2010). Also, practitioners are encouraged to keep up to date with changes or new initiatives and approaches to teach children the pre-school curriculum which improve their practice and benefit the children they are teaching (Rodrigues, 2005: Lewis, 2010). Finally, compared to practitioners in Wales who had difficulty with understanding and teaching the concepts of the ESGDC (Bennell and Norcliffe, 2010), Lewis (2010) mentions that practitioners in Sweden are knowledgeable in the principles and requirements of the curriculum and show confidence when teaching children, this can benefit their learning and development regarding sustainability as it allows them to become informed citizens of their world.

To conclude, there are many opportunities and challenges when integrating education for sustainability into early childhood sectors, this has been discussed in relation to the curriculum in Wales. Educating children about sustainability can benefit their knowledge and understanding of the world, which can lead to making sustainable lifestyle choices benefiting today's generation and those of the future.

Reference List

Adams, W. (2009) *Green Development: Environment and Sustainability in a Developing World (3rd ed)*. Oxon: Routledge.

Bennell, S. and Norcliffe, D. (2010) *Education for Sustainable Development and Global Citizenship: A case study in policy formation*. Educational Transactions forthcoming: Bangor University.

Boyd, D. and Hirst, N. (2016) *Understanding Early Years Education Across the UK: Comparing practice in England, Northern Ireland, Scotland and Wales*. Oxon: Routledge.

Boyd, D., Hirst, N. and Siraj-Blatchford, J. (2017) *Understanding Sustainability in Early Childhood Education: Case Studies and Approaches for Across the UK*. Oxon: Routledge.

Childrens Rights Alliance England (2017) 'Children's Rights and the Law' <http://www.crae.org.uk/childrens-rights-the-law/> [Accessed: 20th November 2017].

Cohen, L. and Waite-Stupiansky, S. (2017) *Theories of Early Childhood Education: Developmental, Behaviorist and Critical*. London: Routledge.

Collins, M. (2008) *Global Citizenship for Young Children*. London: SAGE Publications Ltd.

Conkbayir, M. and Pascal, C. (2014) *Early Childhood theories and Contemporary Issues: An Introduction*. London: Bloomsbury Publishing Plc.

Davis, J. (1998) 'Young children, environmental education, and the future'. *Early Childhood Education Journal*, Volume 26, Issue 2, pp.141-154.

Davis, J. (2009) 'Revealing the research 'hole' of early childhood education for sustainability: a preliminary survey of the literature'. *Environmental Education Research*, Volume 15, Issue 2). pp. 227-241.

Davies, D., Howe, A., Collier, C., Digby, R., Earle, S. and McMahon, K. (2014) *Teaching Science and Technology in the Early Years (3-7) (2nd ed)*. Oxon: Routledge.

Department for Children, Education, Lifelong Learning and Skills. (2008) *Education for Sustainable Development and Global Citizenship: A Common Understanding for Schools*. Cardiff: Welsh Assembly Government.

Department for Children, Education, Lifelong Learning and Skills (2008a) *Education for Sustainable Development and Global Citizenship Information for teacher trainees and new teachers in Wales*. Cardiff: Welsh Assembly Government.

Department for Education and Skills. (2015) *Foundation Phase Framework (Revised 2015)*. Cardiff: Welsh Assembly Government.

Duhn, I. (2012) 'Making place for ecological sustainability in early childhood education'. *Environmental Education Research*, Volume 18, Issue 1, pp.19-29.

Elliott, S. and Davis, J. (2009) 'Exploring the resistance: An Australian perspective on educating for sustainability in early childhood'. *International Journal of Early Childhood*, Volume 41, Issue 2, pp.65-77.

Engdahl, I. and Rabusicova, M. (2010) 'Children's Voices about the State of the Earth and Sustainable Development. In A report for the OMEP World Assembly and World Congress on the OMEP World Project on Education for Sustainable Development' http://www.omep.org.gu.se/digitalAssets/1314/1314390_esd-congress-report-child-interviews.pdf [Accessed: 20th November 2017].

Estyn (2006) 'Update on inspecting education for sustainable development and global citizenship in schools'. <http://se-ed.co.uk/edu/wp-content/uploads/2012/10/Inspecting-education-for-sustainable-development-and-global-citizenship-in-schools.pdf> [Accessed: 23rd November 2017].

Estyn (2014) 'ESDGC Progress in Education for Sustainable Development and Global Citizenship'. <https://www.estyn.gov.wales/sites/default/files/documents/ESDGC%3A%20Progress%20in%20education%20for%20sustainable%20development%20and%20global%20citizenship%20-%20June%202014.pdf> [Accessed: 23rd November].

Gordon, A. and Browne, K. (2017) *Beginnings & Beyond: Foundations in Early Childhood Education (10th ed)*. United Kingdom: Cengage Learning.

Gray, C. and MacBlain, S. (2015) *Learning Theories in Childhood (2nd ed)*. London: SAGE Publications Ltd.

Hagglund, S. and Samuelsson, I. (2009) 'Early childhood education and learning for sustainable development and citizenship'. *International Journal of Early Childhood*, Volume 41, Issue 2, pp. 49 - 63.

Horsley, M. and Bauer, K. (2010) 'Preparing early childhood educators for global education: the implications of prior learning'. *European Journal of Teacher Education*, Volume 33, Issue 4, pp.421-436.

Johnston, J. and Nahmad-Williams (2009) *Early Childhood Studies*. England: Pearson Education Limited.

Lewis, A. (2010) 'Making sense of Swedish practice: is it that different from practice in Wales?' <http://www.tactyc.org.uk/pdfs/Reflection-Lewis.pdf> [Accessed: 20th November 2017].

Lewis, E., Mansfield, C. and Baudains, C. (2010) 'Going on a turtle egg hunt and other adventures: Education for sustainability in early childhood'. *Australasian Journal of Early Childhood*, Volume 35, Issue 4, pp. 95-100.

Lohmander, M. and Samuelsson, I. (2015) 'Play and learning in early childhood education in Sweden'. *Psychology in Russia*, Volume 8, Issue 2, pp.18 – 26.

Lopez-Roberston, J. (2013) 'Ecological Literacy: Educating Our Children for a Sustainable World'. *Language Arts*, Volume 90, Issue 4, pp. 283-285

McNichol, H., Davis, J. and O'Brien, K. (2011) 'An ecological footprint for an early learning centre: identifying opportunities for early childhood sustainability education through interdisciplinary research'. *Environmental Education Research*, Volume 17, Issue 5, pp.689-704.

Oxfam (no date) 'What is Global Citizenship' <https://www.oxfam.org.uk/education/who-we-are/what-is-global-citizenship> [Accessed: 21st November 2017].

Ozar, M. (2012) 'Curriculum of Preschool Education: Swedish Approach'. *International Journal of Business and Social Science*, Volume 3, Issue 22, pp.248 -257.

Pearson, E. and Degotardi, S. (2009) 'Education for sustainable development in early childhood education: A global solution to local concerns?'. *International Journal of Early Childhood*, Volume 41, Issue 2, pp.97-111.

Peterson, A. and Warwick, P. (2015) *Global Learning and Education: Key Concepts and Effective Practice*. London: Routledge.

Rodrigues, S. (2005) *A Model of Teacher Professional Development: The Partnership in Primary Science Projects*. New York: Nova Science Publishers Inc.

Samuelsson, I. and Kaga, Y. (2008) *The contribution of early childhood education to a sustainable society*. Paris: Unesco.

Siraj-Blatchford, J., 2009. Education for sustainable development in early childhood. *International Journal of Early Childhood*, 41(2), p.9.

Skolverket (2010) 'Curriculum for the Preschool Lpfö 98: Revised 2010' [https://www.skolverket.se/om-skolverket/publikationer/visa-enskild-publikation? xurl =http%3A%2F%2Fwww5.skolverket.se%2Fwtpub%2Fws%2Fskolbok%2Fwpubext%2Ftrycksak%2Fblob%2Fpdf2704.pdf%3Fk%3D2704](https://www.skolverket.se/om-skolverket/publikationer/visa-enskild-publikation?xurl=http%3A%2F%2Fwww5.skolverket.se%2Fwtpub%2Fws%2Fskolbok%2Fwpubext%2Ftrycksak%2Fblob%2Fpdf2704.pdf%3Fk%3D2704) [Accessed: 22nd November 2017].

Sweden Sverige (2017) 'Education in Sweden' <https://sweden.se/society/education-in-sweden/> [Accessed 22nd November 2017].

Tinney, G. and Hirst, N. (2018) 'Early childhood for sustainability within Wales' http://moodle.uwtsd.ac.uk/pluginfile.php/115747/mod_resource/content/1/EAAE5005TIN104.pdf [Accessed: 21st November 2017].

Unicef (no date) 'Fact sheet: A summary of the rights under the Convention on the Rights of the Child' https://www.unicef.org/crc/files/Rights_overview.pdf [Accessed: 21st November 2017].

Welsh Government (2007) *Out of classroom learning Making the most of first hand experiences of the natural environment*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (2015) 'Well-being of Future Generations (Wales) Act 2015: The Essentials'. <http://gov.wales/docs/dsjlg/publications/150623-guide-to-the-fg-act-en.pdf> [Accessed 21st November 2017].

Whitebread, D. and Coltman, P. (2015) *Teaching and Learning in the Early Years (4th ed)*. London: Routledge.

Williams, D. and Brown, J. (2012) *Learning Gardens and Sustainability Education: Bring life to Schools and Schools to Life*. New York: Routledge.

Wilson, R. (2012) *Nature and Young Children: Encouraging Creative Play and Learning in Natural Environments (2nd ed)*. London: Routledge.