Rating education for sustainable development in the early years: A necessity or a challenge?

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INTRODUCTION In recent years there has been increasing interest in addressing Education for Sustainability (ESD) and Global Citizenship (GC) in the early years of education. Policy-makers, researchers and educationalists agree that the sooner children gain knowledge and develop values relating to ecology, economy and society the more prepared they are as citizens of today working towards a sustainable future. As such, in educational contexts there has been an attempt to embed ESD in a more explicit way. The aim of this paper is to contribute to the debate about the role and necessity of measuring ESD/GC in early childhood. In 2013 OMEP proposed the Environmental Rating Scale for Sustainable Development in Early Childhood (ERS-SDEC) as an instrument used for research or for curriculum assessment and development purposes by being implemented in multiple contexts; in one classroom, across classrooms or even across a whole local authority. Examples of cross-cultural ESD projects in England and Kenya are presented. Two entirely different settings, Cranborne Pre-school in Dorset and Ng'ondu in Kenya, used the ERS-SDEC scale as a means to integrate ESD into their educational practices. The first project named 'Matarajio' (Swahili for hope/expectations) highlighted two important Sustainable Development goals; Goal 5 'Achieve gender equality and empower all women and girls' and Goal 15 'Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss'. The second project, the W.A.S.H. UNICEF project related to goal 6: 'Ensure access to water and sanitation for all'. Findings and discussion show how children and staff engaged in experiential learning for ESD by unpicking and considering diverse aspects of the same themes and sustainable development goals. The implications and future learning on monitoring and evaluating ESD in early childhood are assessed.

ESD/GC IN EARLY YEARS ESD

provides a vision of education that seeks to balance human and economic well-being with socio-cultural traditions and respect for the environment. As a matter of fact, according to UNESCO (2014) 'there is now a growing international recognition of ESD as an integral element of quality education and a key enabler for sustainable development' (9). ESD covers the three interdependent pillars of sustainability: environmental and ecological concerns, social and cultural implications and economic aspects (Brundtland, 1987) and over the last decade there has been increased interest in exploring why and how ESD could be enhanced more explicitly from early childhood (e.g. Pramling Samuelsson, 2011; Davis and Elliott, 2014; Davis, 2015). Setting values, attitudes and awareness from early in life sets the foundation of citizens who learn to care about a healthier, more equitable, more sustainable world. Indeed, investing in early childhood and building a sustainable society are strongly interconnected.

Early childhood education for sustainability has, traditionally, been related to environmental education. However, it is more than that, as it covers principles and practices related to ecology, economy and equity. ESD offers opportunities for transformative learning in, about and for the

environment (Davis, 2009). This later aspect, underlined by Davis, indicates a strong sense of enabling children to become active agents in addressing sustainability issues. From this perspective, ESD should be about encouraging children to solve problems, to think and act, to be empowered in familiarising themselves, appreciating and making decisions, if necessary, on sustainability matters (Siraj-Blatchford et al, 2010). ESD has a humanistic approach. It encompasses an understanding of people, culture and diversity in 'ways of being, relating, behaving, believing, and acting differently' (Pressoir, 2008: 60).

However, ESD has various iterations and meanings and there is no one way to define or apply ESD in educational contexts. ESD might be interpreted or prioritised in different ways amongst diverse regional, national and international cultural contexts. Davis and Elliot (2014) state that ESD is a 'co-evolution of social and biophysical systems played out in responsive and responsible relationships. The challenge is to translate these ideas into early childhood educational praxis' (13). As such, there are barriers and fragmentation (UNESCO, 2009: 65) in implementing ESD in early childhood and attention is directed in harmonising these tensions by underlining the value of ESD.

One such attempt can be found in the initiative to develop rating scales or measurements of ESD in Early Childhood settings. The benefits of setting ESD/DG goals or indicators can allow for opportunities to ensure equity and parity in children's learning experiences; to see what is effective (what works) and what is not; to share good practice and perhaps apply it to different contexts; to make more explicit how aspects of ESD/GC can be embedded in the curriculum; to set benchmarks, which leaders, stakeholders, parents, learners and teachers can understand (Shaeffer, 2013) and, as such, to promote common understanding. Having a rating scale sets some common ground in exploring ESD among diverse Early Childhood settings.

> Key Point
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> The benefits of ESD/GC indicators include to:
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> > • see what is effective and what is not
> > • ensure equity in learning experiences
> > • share good practice across different contexts
> > • set benchmarks
> > • promote common understanding

Specifically, OMEP developed in 2013 the ERSSDEC (Environmental Rating Scale for Sustainable Development in Early Childhood). This scale is based on the same rating procedures as previous rating scales, namely: Early Childhood Environment Rating Scale - Revised (ECERS-R) (Harms, Clifford and Cryer, 1998) and - Extension (ECERS-E) (Sylva, Siraj-Blatchford, and Taggart, 2003). It has a user handbook and has been translated into nine languages. It can be used as a research tool but also as a self-assessment tool for practitioners (http://www. worldomep.org/wp-content/uploads/2013/12/ERS-SDEC_English.pdf).

> Key Point
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> The ERS-SDEC can support practitioners to audit their ESD curriculum and set curriculum development priorities.

Based on observations and data collection from other sources (e.g. interviews with staff-children-parents, documents-records-displays) it covers aspects related to i. Social and Cultural Sustainability

(Global Social Justice), ii. Economic Sustainability (Equality) and iii. Environmental Sustainability. The ERS-SDEC scale measures from 1 to 7 with 1 = inadequate, 3 = minimal 5 = good and 7 = excellent and it applies to contexts and settings that host children aged 2 ½ - 7 yrs. It may be applied by individual or groups of practitioners to audit their education for sustainable development curriculum, and to help practitioners and preschool centre managers in setting curriculum development priorities. For example, under Social and Cultural Sustainability indicator 2, at an inadequate level (=1) would be: '1.2 No policy statement exists regarding the importance and value of social and cultural diversity in the setting', whereas the same indicator at an excellent level (=7) would be: '7.2 Children explore and investigate unfamiliar social and cultural contexts'.

In this direction, the aim of this paper is to draw upon projects on ESD in UK and Kenya over three years. The purpose is to explore how similar thematic projects with the same sustainable development goals are applied in diverse socio-cultural contexts. Sustainable development goals 5, 15 and 6 and the broader framework of ERS-SDEC, are used cross-culturally in providing insights on measuring ESD.

APPLICATION OF ESD IN TWO DIFFERENT CONTEXTS: CRANBORNE PRE-SCHOOL IN DORSET AND NG'ONDU IN KENYA.

Cranborne PreSchool in Dorset UK and N'gondu pre-school in Kenya were part of a partnership that was developed as a World OMEP pilot project in 2012. The UK/ Kenya OMEP partnership has been promoting ESDprojects that empower the pre-school child through a play-based approach, between the two countries. Two overarching projects are presented in relation to the UN Sustainable Development Goals (5, 15, 6) and environmental practices framing the ERS-SDEC. Precisely, the Matarijio project highlighted the work and life of a famous Nobel Peace Prize winner Wangari Maathai who founded the Green Belt Movement (UN Sustainable Development Goals 5, 15) and the UNICEF W.A.S.H project emphasised aspects of the water cycle (UN Sustainable Development Goals 6). Both projects took place in the preschools in Dorset and Kenya and tackled aspects of the three core pillars of economic, cultural/social and environmental and the ERS-SDEC.

Goal 5: Achieve gender equality and empower all women and girls (Matarijio project)

The children at both Cranborne and N'gondu learnt about gender equality and empowerment through socio-dramatic play by the promotion of positive female role models. The UK children dressed up as Doctors, Firefighters and Scientists and played in a set-up 'hospital' and this was replicated (using the same clothes) in Kenya. The children watched each other on videos and looked at photographs which helped them associate themselves with children from another part of the world, enabling them to become aware of children in another social/cultural context. These were repeated in the UK with other children in order to continue the learning cycle through the EYFS. These activities are judged to link to the ERSSDEC indicators for Social and Cultural Sustainability (Global Social Justice): 7.1 The children share their ideas and knowledge of their own and others' cultures in group sharing times and are able to speak openly about diversity; 7.2 - Children explore and investigate unfamiliar social and cultural contexts; and 5.3 - Children participate in activities that cross stereotypical gender, racial, ethnic and tribal boundaries (e.g. providing diverse opportunities and materials for dramatic and social play) (OMEP, 2013a: 1).

Goal 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss (Matarijio project)

Continuing to highlight the work of Wangari Mathaai, who had a vision of planting a billion trees around the world, environmental awareness and consciousness were aroused in the children

through a session called 'Doing the Best we Can' which was coined from the famous video from the movie 'Dirt' https://www. youtube.com/watch?v=-btl654R_pY. The session was a way to share with the children the implicit message that to make their world a better place for themselves and each other every little thing they can do helps towards these goals. A woodland session was devised to introduce them to wood and natural products from woodlands as a way to interact and connect to products that were not necessarily separate from themselves. These sessions brought across the message of worldwide deforestation in a sensitive and appropriate way for the age of the children disregarding the often cited messages about children being too young for complex global topics. This part of the project is considered to match the ERS-SDEC indicators for Environmental Sustainability 3.2 - Children's attention is explicitly drawn to the need to care for the environment of the setting and in the local community and 5.2 - The children are encouraged to identify a range of environmental protection issues and to suggest their own ideas for solving them; and also indicator 5.4 under Economic Sustainability (Equality) - The children's attention is specifically drawn to economic issues of concern to the local and international community (OMEP, 2013a; 2 and 3).

Goal 6: Ensure access to water and sanitation for all (UNICEF W.A.S.H project)

During 2015 and 2016 many sessions between UK partner preschools and Kenya preschools were devised in order to emphasise the 'rights respecting' work supporting the UNICEF W.A.S.H in schools programme http://www.unicef.org/ wash/schools/ which was developed into World OMEP initiative W.A.S.H from the Start http://www.worldomep.org/en/wash-from-the-start/. At the start of 2015 Cranborne preschool planned activities for their children to understand hygiene and the importance of hand washing. This was done in conjunction with World Water Day. A session was done by Cranborne called 'Is it safe to drink' where the children and their parents collected as many samples of water as they could find. They collected sea, toilet, tap, spring, river and puddle. They were asked to bring them in bottles and asked if just by looking at them they could tell if they were 'safe to drink'. They made an association with the fact that toilet water looked exactly the same as tap water and that unsafe water was not always visible. They experimented with dissolving different products in the water such as soil, flour, salt and sugar to see what happened. Could they tell what was in the water? The children were read stories such as 'The Drop Goes Plop' by Sam Goodwin about the journey of a water drop through the pipes Research in Action | 21 and reservoirs before it reached our taps. They learned about the interaction of water resources and the hydrological cycle as a social construction and as part of human management within the context of global awareness. To further highlight this a 'Tippy Tap' was built in the playgrounds which the children loved.

These Tippy Taps were brought in by sessions in 2016 in further projects by OMEP Kenya president Lilian Okal in her school Mount Kenya Academy and their UK partner Townsend Montessori. They highlighted the impact of water poverty in Kenya and the issues surrounding the lack of infrastructure. Differences of services and facilities for children between Kenya and the UK were highlighted. For example, as reported by Pramling-Samuelsson, and Siraj-Blatchford. (2013), in Kenya 122.000 under 5 year olds die each year and these deaths are caused mostly by lack of water, sanitation and hygiene. Seventy-five percent of children are unable to wash their hands with soap or ash after visiting the latrine and before eating. Moreover, for children in the UK it is hard to imagine that water is a scarce resource around the world which is made scarcer by the lack of adequate infrastructure through the complexities of equitable, political, social and economic discourse and the difficulties of landlocked countries' access to water through transboundary and local governance issues.

These messages become embedded but at the same time can be devised in such a way as to meet appropriate age related curriculum goals and national targets. These activities connect to the ERS-

SDEC rating Environmental Sustainability indicators 3.2 and 5.2. (see above) and also 7.2 - The children are encouraged to provide a variety of actions, including narrative accounts, to represent their efforts to solve environmental issues. They also link to Economic Sustainability indicators: 5.1 - The children are encouraged to suggest ways in which costs can be reduced by conserving and/or recycling materials and resources such as paper, water and electricity in the setting, at home and beyond; 5.4 (see above); and 7.2 - The children are encouraged to provide a variety of actions, including narrative accounts, to represent their efforts to solve environmental issues; and indicate how the scales can be applied in diverse socio-cultural settings (OMEP, 2013a: 2 and 3).

DISCUSSION, THOUGHTS AND REFLECTIONS

As the projects undertaken in England and Kenya show, the ERS-SDEC can be applied to evaluate provision for ESD. Where the activities above have been rated using a descriptor beginning with 3 (e.g. 3.2 for Environmental Sustainability) that represents a 'minimal' level and would apply to 'the most common current preschool practice in environmental education around the world' (OMEP, 2013b: 1). Descriptors beginning with 5 (e.g. 5.3 for Social and Cultural Sustainability; 5.2 for Environmental Sustainability; 5.4 for Economic Sustainability) identify practices that can be considered 'good' examples of ESD in early childhood. Finally, the items beginning with 7 (i.e. 7.1. and 7.2 for Social and Cultural Sustainability; 7.2 for Environmental Sustainability; 7.2 for Economic Sustainability) demonstrate 'excellence' where ESD has been taken the furthest, in terms of understandings and actions. In the light of this, some advantages and challenges of the measurement of ESD in Early Childhood Education and Care (ECEC) in general and of the ERS-SDEC tool are discussed, briefly, in conclusion.

Undoubtedly, a commitment to achieving the UN Sustainable Development Goals across the globe brings a greater need for recording progress, including provision for ESD in ECEC (Pramling Samuelsson, 2011; Davis, 2015). A tool such as the ERS-SDEC has potential for use in monitoring and auditing ESD activities and the scales may provide a shared language (Shaeffer, 2013) for rating and celebrating ESD work in early childhood settings. This benefit of the scale can be seen in the bringing together of early years practitioners, in this case from England and from Kenya, and providing some common ground for the discussion and promotion of ESD. This has to be approached with caution, though, as it cannot be assumed that understandings are the same across diverse contexts. In the work with Kenya, the educator from the UK noticed that there were differences and tensions between intrinsic and instrumental values, particularly in relation to economic aspects of ESD. For example, when the educator in Kenya was talking to the children about the importance of elephant conservation, a priority was the attraction of elephants for tourists on safari holidays rather than for the sake of the survival and the increase of the elephant population itself. Whilst this anthropocentric view of the environment is unsurprising in a context where living standards for local communities may be dependent upon tourism it is at odds with the respect for ecology and for animal rights and freedoms that are likely to be part of ESD in a minority setting. The ERS-SDEC items are therefore just a starting point for dialogue and learning for the promotion of ESD in two contrasting places.

> Key Point
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> The ERS-SDEC brought together early years practitioners from England and Kenya to provide common ground for the discussion and promotion of ESD.

In producing the ERS-SDEC, the aim was to provide a tool with similar benefits to the Early Childhood Environment Rating Scale but to minimise the complexities (Siraj-Blatchford, 2016). The three page ERS-SDEC tool, with up to five elements for each of three aspects of sustainability, is designed to be user friendly, especially for those people who are already familiar with ECERS (OMEP, 2013a, 2013b). As with ECERS, the tool can be valuable for professional development as a means of drawing practitioners' attention to areas of practice and providing a basis for discussion and reflection that may lead to advances in provision. Where ECERS and similar tools have been used in this positive way, ERS-SDEC may be similarly well-accepted and used. In some places, however, this should be approached with caution as ECERS may have negative connotations due to its use for surveillance within a culture of managerialism. In the latter case, work is often carried to increase scores on the scales with a consequent loss of commitment to the values that underpin the tool itself.

In England, where 'sustainability' and 'sustainable development' are not yet part of the everyday vocabulary of practitioners, the ERS-SDEC can provide a useful means of defining these topics and can offer insights into the areas that might be covered by ESD. Whilst this is beneficial, a ready-made scale presented by external experts that is perceived as something to be understood and learned may diminish practitioners' confidence to develop their own understandings of, and commitments to, ESD. In conclusion, therefore, we argue that the ERSSDEC may assist in the task of defining and applying ESD in ECEC but that work must continue to support practitioners to develop their own critical awareness of the potential and scope of ESD in differing regional, national and international cultural contexts.

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Zoi Nikiforidou is a Senior Lecturer in Early Childhood at Liverpool Hope University. Her research interests address both methodological and theoretical issues in teaching and learning as well as aspects of cognitive development and wellbeing in early childhood.

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