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Early Childhood Education: A Vibrant Arena in the Complex Transformation of Society Towards Sustainability

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Introduction

In 2015, the United Nations member states declared a bold ambition: by 2030 they would reach 17 Sustainable Development Goals (UNSDGs), which would create peace and prosperity for both people and the planet. The *Agenda 2030* was an urgent call for rapid and collective action in order to both mitigate climate change and ensure that all humans have access to basic safety, health and education as well as a possibility to live a prosperous life void of injustices and inequalities (United Nations, 2015). The UNSDGs were defined as targets with indicators to be reached and each goal has been more precisely described in several policy documents (UNESCO, 2020).

With respect to young children, the UNSDG 4 *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all* is in a very direct way linked to the provision of early childhood education and care for all children as well as to the right for all children to have equal access to quality education. Further, UNSDG 4 does also include the right to sustainable education i.e., education that contributes to a more just and sustainable world. A recent initiative to strengthen the work on UNSDG 4 in the realm of education for young children, is the *Global Partnership Strategy for Early Childhood (GPS) 2021–2030* (UNESCO, 2021a). The GPS was launched after close collaboration with researchers, NGOs, UNICEF, WHO and the World Bank. Its overall aim is for countries and partners to make it their highest priority to invest in early childhood education and care (ECEC) services by 2030. Further, the GPS encourages them to recommit on their earlier promise and to ensure that ECEC is fully inclusive, accessible, affordable, gender-responsive, equitable and developmentally appropriate for each child. This promise mainly relates specifically to UNSDG Target 4.2 and includes 5 key strategies: (1) evidence for action and rights; (2) data, monitoring and evaluation for

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accountability; (3) scaling-up access, inclusion, equity and quality; (4) strengthened policy, governance, financing and advocacy; (5) international and national coordination and cooperation. There is also a proposal to lobby for a United Nations' decade for ECEC. With respect to the magnitude of the sustainability challenges we are now facing, it could be argued that the GPS should address children's rights to early childhood education for sustainability (ECEfS). ECEC should be permeated by efforts that provide opportunities for all children to develop values, attitudes, understandings, and skills that contribute to their resilience, for instance their capacity to handle the changes and challenges in terms of climate change, loss of biodiversity, depletion of natural resources as well as the multiple economic, social, and cultural injustices that need to be addressed in order for a more sustainable world to actually come into realisation and for the intentions of *Agenda 2030* to be met. Ärlemalm-Hagsér and Pramling Samuelsson (2021) show in a case study with an experienced ECEC teacher how the ECEC teacher's knowledge and skills about sustainability and the SDGs, as well about how to implement the knowledge as part of the pedagogical practices with children, is crucial.

The UNSDGs have been debated and critiqued in terms of the challenges and paradoxes in implementation (cf. Kopnina, 2020; Saxena et al., 2021). Doubts have been expressed concerning the possibility to address the UNSDGs within the planetary limits. A recurrent line of thought has been the need for transformative educational practices with focus on themes such as liberation, ethics, indigenous knowledge, and eco-centric values. Carr et al. (2021, p. 6) acknowledge the challenges, controversies, and inconsistencies around the UNSDGs, but argue that "early childhood environmental education is where the SDGs can be distilled into theoretical, transformational and relational practices". In this special issue, we seek to understand if and how the 17 UNSDGs can be understood both in relation to both the theory and practice of ECEC.

It can be argued that all the 17 goals are of great importance for children, since they all concern the common world in which we are living and fundamentally shape the future that children will face. As an expression of political willpower, the *Agenda 2030*, is encouraging, but the implementation of this ambitious policy has been slow and is yet to be realised. In fact, the planetary situation has rather deteriorated since 2017, when *the World Scientists' Warning to Humanity: A Second Notice* was published (Ripple et al., 2017). In 2018, this message was reinforced by Alden Meyer from the Union of Concerned Scientists stated that we were already facing a 'planetary emergency'.¹ The harsh facts are that we are currently transgressing several of the planetary boundaries that have been identified as a safe and just space for development (O'Neill et al., 2018). The *Living Planet Report* by Almond et al. (2020) provides harsh facts about the loss of biological diversity, which indicates that Humanity's relationship with nature is broken. Fresh data shows that global temperatures are continuing to rise with alarming speed (WMO, 2022). There is no

¹ The expression was used by Alden Meyer, director of strategy and policy at the Union of Concerned Scientists, in a statement 10th of December 2018 at the UN climate summit in Katowice, Poland.

doubt that we must considerably ramp up our work for sustainability in order to protect the foundations for a good life on planet Earth.

National Voluntary Reports Monitoring the Implementation of Agenda 2030

As a part of putting the *Agenda 2030* into practice, every UN member state is obliged to regularly send in country reviews about the current state and the progress in relation to the 17 UNSDGs. At the annual UNESCO High Level Political Forum on Sustainable Development, some of these reports are in focus for the discussion (for information on the 2021 forum, please go to <https://sustainabledevelopment.un.org/hlpf/2021>). The latest report from Sweden (Government offices of Sweden, 2021) showed a broad holistic review of Swedish national policy for the whole society, including lessons learned, development and challenges since the last report in 2017. A central focus has been put on children and youth, describing consequences for children linked to each of the 17 UNSDGs. In 2020, the UNCRC got the status of National Swedish law, which strengthens the children's position. However, the review states that "economic and social inequalities are not decreasing. Many of the national environmental objectives, including climate targets, will not be met. Violence and abuse are not decreasing, and more children are subjected to bullying" (Government offices of Sweden, 2021, p. 12).

The latest report from Finland (Publications of the Prime Minister's Office, 2020) gives an extensive overview over the initiatives taken to address the 17 UNSDGs since the previous report in 2015. In the report, children and childhood are frequently addressed. Specific actions have been taken to guarantee all children access to quality education through a new act and a new national core curriculum for early childhood education and care. Specific attention is directed towards provision of Sámi language early childhood education and care. Regarding education for sustainability, it is stated that "Sustainable development permeates all levels of education from early childhood education and care through the secondary level (including vocational education and training) and it is also included in the agreement negotiations between the Government and higher education institutions" (Publications of the Prime Minister's Office, 2020, p. 112).

It takes careful reading, and it is hard to understand what the Finnish and Swedish governments (as examples of National reviews) prioritise in order to reach the omission goals specified in Paris in 2015, and what immediate actions that are planned. Furthermore, these reports do not express the perspectives and role of young children as agents of change. In the voluntary national reports, as well as in the *Agenda 2030*, children are not addressed as active subjects with agency and competence to contribute to processes of creating a more sustainable world. However, the intergenerational perspective is pointed out as a foundational aspect of sustainable development in the Opening Statement by the Finnish Prime Minister.

Recently, media reports have increasingly shown how the implementation of the SDGs reveals disruptions and challenges in terms of conflicting worldviews and interests among groups within a society or community. A current example of this is

the conflict concerning the natural resources of Sápmi (Persson et al., 2017; UNESCO, 2021b), where the Sámi people, the only remaining indigenous people of the North of Europe lives. Is it possible to balance between a sustainable way of life guided by the Sámi traditions and lifestyle and the investments proposed as a consequence of mitigating climate change in line with the current paradigm for economic growth? Is further mining, cutting of forest, building of industries and power plants in line with protecting cultural sustainability and/or biodiversity? Further dialogue and education around these issues are necessary.

Young Children as Participants and Drivers in ECEfS

Today, halfway through the 15 years of Agenda 2030, we see children raising their voices and taking action with increasing intensity. The Fridays for Future movement and the Extinction Rebellion engage hundreds of thousands of people across the globe and across all ages from young children to elderly. By non-violent action in intergenerational movements, people are challenging the establishment and demanding climate justice as well as social and cultural fairness. In recent years, indigenous peoples have increasingly contributed to the fight for a more sustainable world. This can be seen as a response to the concerning fact that during the past years, it has become evident that humanity is facing unprecedented challenges.

Sustainability is in fact a matter of justice for children. Sonter and Kemp (2021) found that working with the UNSDGs may support educators to demonstrate quality practice in line with the national policy. As influencers of early childhood pedagogy, educators are the designers and presenters of a more holistic understanding of education towards societal and global sustainability who will inspire the hopeful, transformative change required in the learning spaces of early childhood. UNICEF (2016) links the UNSDGs to the Convention of the Rights of the Child (UNCRC). Park et al. (2021) found that the health sector and education were most often linked when comparing the UNSDGs and the UNCRC. In 2019, 16 children filed a formal complaint to the Committee on the Rights of the child where they argued that their livelihood, and thus their rights, were endangered because five named nations did not take enough actions towards sustainability. In its response, the Office of the high commission for the human rights (OHCHR, 2021) acknowledges that climate change violates children's rights to life, health, and culture. Children are given credit for their effort to bring these issues to the public knowledge and international jurisdiction. However, since the children had not followed a filing procedure in their own countries, the High commission did not go into the specific details of the complaint. The whole procedure shows that the SDGs are also influencing children's priorities and perspectives and it is a good example of children's agency.

Consequently, there are many initiatives at different levels for actions towards sustainability. However, a common result when asking ECE teachers and student teachers about ECEfS, is a weak understanding of the involved concepts (Engdahl et al., 2021; Wolff & Furu, 2018). There is also a growing body of research on ECEfS within the ECE Teacher Programmes, which shows that ECEfS is weakly or not implemented in Early Teacher Education and that further studies are needed (Ärlemalm-Hagsér &

Elliott, 2020; Davis & Davis, 2020). Altogether, there is a risk that teachers, if they read original UN related documents, feel estranged by the policy language, and cannot relate the goals and indicators to their own ECE practice. Contemporary research shows, on the other hand, that many ECEC teachers include sustainability in their projects and themes in preschool education (Davis, 2014; Engdahl, 2015; Espinosa & Triverio, 2021; Furu & Heilala, 2021; Furu & Valkonen, 2021). Children and their teachers are increasingly involved in 'practises of collaborative exploration' (Ødegaard, 2021), for instance in monitoring and saving animals, cleaning up the environment, as well as by themselves in building relationships with new friends with multiple backgrounds. This approach to ECEfS respects children's needs to play, explore, move and is based on entanglement with both the human and the more-than-human world (Hackett & Rautio, 2019; Myrstad et al., 2020). Further, it is characterised by playful learning, meaning-making and authentic problem solving and is an expression of a genuine care for Human and planetary wellbeing.

These actions follow in practice what is recommended in the Roadmap for ESD (UNESCO, 2020); however, they are hardly recognised in local or national policy reports, or in media. It seems that children, teachers, local, national, and international politicians and businessmen don't speak the same language. The differences point at a language divide between different stakeholders, levels and groups of people. Årlemalm-Hagsér and Elliott (2020) argues that there is also a rhetoric-reality and a knowledge-practice gap between the expressions in international policy compared to the level of action taken with critical implications for both early childhood educators and for children's lives.

Considering the importance of a global partnership in ECEfS as well as in realisation of the SDGs, we underline the importance of developing both a common understanding and of intensifying everyday practises and pedagogies of sustainability in ECEC despite these different languages. Early childhood education could and should be at the very centre of a dialogue between various generations, stakeholders, and groups in society (Elliott et al., 2020). Education in the early years is a powerful arena for development of values, attitudes, and behaviours. It holds a space for creating understandings of ourselves in the world, our relationships to ourselves, other humans, but also to the more-than-human world (Taylor, 2017; Wals, 2017). Thus, it can shape both our contemporary world and our future. When approaching ECEfS, the environmental dimension is often the starting point but also the main priority (Engdahl et al., 2021). The social, cultural, and economic as well as political dimensions are addressed to a lesser degree. Studies show that there is still uncertainty among staff in ECEC considering the implementation of ECEfS (Huggins & Evans, 2018). Against this background, this special issue seeks to promote the dialogue by making visible research that is conducted in a variety of contexts and thus contributes to the knowledge on ECEfS in relation to the SDGs.

This Special Issue

This is the third IJEC Special Issue on early childhood education for sustainability. Already in 2009, Volume 41(2) with the title *Education for Sustainable Development in Early Childhood*, IJEC introduced the field of ESD. Guest editors were Inger Björneloo and John Siraj Blatchford and included the important role that Early Childhood Education researchers and educators played in the process leading up to *The Gothenburg Recommendations for ESD* (2008). The second Special issue of IJEC focusing on Education for sustainable development was launched in 2017, Volume 49(3), with the title *Contemporary Research on Early Childhood Education for Sustainability* and Sue Elliott and Eva Årlemalm-Hagsér as guest editors.

This third Special issue presents the growing field with articles from Australia, Belgium, Bosnia and Herzegovina, Chile, Croatia, Finland, Malta, Slovenia, Sweden, and Venezuela. This Special issue aims at a critical exploration of early childhood education for sustainability, and what possibilities and/or challenges the UN 2030 Agenda framework generates for Sustainable Development in Early Childhood Education and Care. The articles are presented following their themes. The studies are motivated by the task set with the United Nations' Sustainable Development Goals and UNESCO's Education 2030 Agenda, which understands that children may learn and develop competencies on sustainability, be agents of change, and actively contribute to sustainable development.

Research with Young Children

There is a need for empirical research into children's views about ES. The qualitative case-study reported here by Jane Spiteri makes a welcome contribution to research. Spiteri explores young Maltese children's (aged 3–7 years) perceptions of how ES can be achieved, using child friendly methods, such as semi-structured interviews with children, children's drawings, and their own interpretations of them. Children express thoughts about caring for the natural environment, also about the connectedness between sustainability and religion, here exemplified with Catholicism. As shown earlier, these children also reach out towards the future, and provide ideas towards achieving long-term ES.

Contributions to Theory in ECEC

The UNESCO's Education for Sustainable Development Roadmap has inspired two articles who are interested in promoting a theoretical perspective on the need to transform learning environments by integrating the 17 UNSDGs. Susan Narelle Chapman and Lyndal O'Gorman from Australia explore how arts experiences may allow young children to engage with others' lived experiences.. The languages of play and the Arts powerfully shape young children's understanding of themselves

and their world and offer an inclusive medium for expressing important messages. Arts immersion may be used as a means of providing young children with meaningful opportunities to engage in learning about issues relating to sustainability.

Three researchers from Sweden, Robert Lecusay, Lina Mrak and Monica Nilsson, explore how the concept of ‘community’ can be helpful in understanding the transformative processes towards sustainability. Drawing on Cultural Historical Activity Theory and the concept of ontological Communities of Learners, they describe ways in which community-based characteristics of the preschools shape and are shaped by cultural tools used to pursue ECEfS. Themed Project Work (TPW) is described as an important practice through which to examine questions of community within and across preschools.

In-service Project for ESD

An article from Flanders in Belgium reports research linked to action research. Dietlinde Willockx and Leen Dom describe an action research project that aimed to find out in what ways and with what materials childcare settings can bring ‘raising for a sustainable society’ into a lived practice and what kind of support they need to accomplish that. The authors discuss in what ways the SDG framework provided a stepstone to overcome barriers to work on sustainability, but also how it even created new barriers.

Research with the OMEP ESD Rating Scale

Three articles report studies using the OMEP ESD Rating Scale, first or second edition, or both. In this regard, the ongoing ESD projects, initiated already in 2009 by the World Organisation for Early Childhood Education (OMEP), have inspired research, where the OMEP ESD Rating Scale is implemented and critically explored.

Marlene Fermín González from Chile and Ada Echenique-Arginzones from Venezuela made a comparative study between their two countries using the first edition of the scale—the Environmental Rating Scale for Sustainable Development in Early Childhood (ERS-SDEC) (Siraj-Blatchford et al., 2016). They investigated whether the ERS-SDEC was relevant for assessing education for sustainability and what the indicators encountered in kindergartens. The authors discuss the low scores in the teacher’s ratings as partly a result linked to the strictness of the first edition of the rating scale (ERS-SDEC) and report support for a continued use of the second edition of the scale (OMEP, 2019).

Another comparative study concerning Bosnia and Herzegovina, Croatia and Slovenia was made by Adrijana Višnjić-Jevtić, Jurka Lepičnik Vodopivec, Tamara Pribišev Beleslin, and Aleksandra Šindić. An empirical study with a qualitative approach was conducted, with 91 ECEC teachers. Participants presented their views on the socio-cultural, economic, and environmental dimensions of sustainability, as

well as gave practical examples that, in their view, promote a sustainable lifestyle. The ESD Rating Scale gave openings to creative approaches in ECEfS.

The third article that uses the OMEP ESD Rating Scale was conducted in Bosnia and Herzegovina by Tamara PribišeV Beleslin and Monica Travar. Their article presents master student teachers' experiences and knowledge obtained from the 2 s edition of the scale. The implications are that there is a need to focus on developing preschool teachers' approach to playfulness as an all-pervading professional competence that integrates sustainability as a fundamental value in early childhood education based on play activities.

Discussion

This special issue sheds light over if and how the UNSDGs can be interpreted within the ECEC context. The articles approach the UNSDGs to varying extent, mostly with the ambition to see how practices and pedagogies in ECEC can be understood in the light of *Agenda 2030*. In general, the UNSDG framework proves to be a good way to get acquainted with the complexity of sustainability and to work on a shared vision, but it does not suffice to work on daily attitudes or embodied pedagogical practices, as Willockx and Doom argue in their article. The OMEP ESD Rating Scale proves to be an asset when it comes to the implementation of the UNSDGs in different contexts, which is shown in the three articles by Fermín González and Chenique-Arginzones, PribišeV Beleslin and Travar, and Višnjić-Jevtić, Lepičnik Vodopivec, PribišeV Beleslin and Šindić. There also seems to be a continuing development of theoretical perspectives and concepts that serves as bridges between international policy and ECEC. According to the studies reported in this special issue, ECEC teachers are in fact increasingly recognising children's agency and addressing sustainability in an integrated way. This perspective is also visible in the article by Spiteri. Two articles contribute with theoretical perspectives on art immersion by Chapman and O'Gorman and on the concept of 'community' by Lecusay, Mrak and Nilsson.

As Francis Bacon stated in the 1600s and Michel Foucault developed in the 1900s, knowledge is power. Following the articles in this special issue, we may add that language manifests power. The last two decades, the United Nations and especially UNESCO have successfully developed multiple policy documents, declarations and action plans which all address the important global issue of how to ensure a sustainable future. This paradigm leans on concepts such as sustainable development, the four dimensions of sustainable development and transformative education. The *Agenda 2030* adds global objectives for guiding the process. All together these documents represent new knowledge. Although ECEC teachers for many years have worked with children on environmental education, the new paradigm often appears difficult to understand and to implement.

As shown in the articles, there is a language divide between on the one hand policy texts and on the other ECEC practices. Research might somewhat fill in this gap, and therefore, it is satisfactory that this special issue contributes with theoretical perspectives on ECEfS. It must be noted that many teachers do great contributions

to sustainability in their practices, without using the latest concepts. However, as is shown, teachers have problems understanding the new concepts and linking them to quality education. A holistic development is fundamental in ECEC pedagogy, as is working thematically and with projects. This tradition has great similarities with ECEfS. Pre-service education and professional development are ways for the profession to overcome the language divide. In contrast, one must ask what steps the political leaders and organisations take to bridge the gap. Thus, we argue that genuine dialogue around is essential to promote reciprocal respect and understanding as part of the transformation of our ways of living.

ECEC as an Arena for Transformative Change

Much valuable sustainability work is done in the ECEC context, and the practitioners are translating the UNSDGs into practice as well as creating embodied and relational ECEfS practices and pedagogies that are aligned with the ECEC tradition. A growing body of research shows that ECEC settings are arenas for ECEfS. However, these examples are seldom recognised in national or global reviews. Furthermore, the World Organisation for Early Childhood Education (OMEP) has since 2008 run world projects for sustainable development in early childhood (Engdahl, 2015). Since 2008, OMEP national committees have participated in 1200 ESD projects in 35 countries reaching 150,000 young children (birth—8 years old), 15,500 early childhood teachers and 12,500 families in 4 200 local communities. These practices and pedagogies towards sustainability lean on children's empowerment and agency. This involvement makes a difference and shows the great number of teachers and children who do address ECEfS.

Thus, we can see that there are currently both top-down and bottom-up movements concerning ECEfS. In this context both the language of policy and theories and the language of everyday practices and pedagogies in ECEC can merge and each have their role to play. However, the articles in this special issue make clear that the goals and targets of the *Agenda 2030* are not yet approached in a systemic and coherent way in the ECEC context, and not always leading to transformative change. We interpret this as consequence of the fact that the ideological roots of the framework are to be found in the field of politics rather than in education.

In conclusion, halfway into the *Agenda 2030*, the ambitious goals and targets are far from their realisation. Safety for people and planet are not yet guaranteed. More rapid transformation is urgently needed to create environmental sustainability and promote peaceful, socially fair, and prosperous societies. Undoubtedly, many of us need to make challenging shifts of core values and priorities as a basis for our personal transformation towards sustainability. Likewise, policy makers, stakeholders, and decision makers in the business sector must transform their activities in accordance with scientifically based advice from international research organisations and groups such as Clark et al. (2020), ICCP (2021), WMO (2022) or Steffen et al. (2015) who continuously prove that business as usual is not an option. The Covid-19 pandemic has shown that when a serious crisis is recognised, strong actions and new resources are activated. Communities,

societies, and nations need to urgently transform (Rockström & Gaffney, 2021; Thunberg, 2019). As Humanity, we need to consider both human and the more-than-human life. We argue that the multiple languages used within sustainability and the UNSDGs can guide us on this endeavour, despite their inconsistencies and contradictions. The ECEC practises of collaborative exploration carry a valuable transformational power as they are emanating from within the ECEC context. Based on the articles in this special issue, young children and their teachers, on their premises, are well apt to step up as ‘custodians of the planet’ (Robinson, 2017).

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