

## IRFD Project Description

### Green Transition and World-Care in Early Childhood Education and Care

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This project aims at generating new knowledge on how to mobilize World-Care and green transition in Early Childhood Education and Care (ECEC). Research has called for green transformation for several decades (Brundtland et al. 1987) and it has become an increasing concern in education. However, sustainability has not figured in the Danish ECEC curriculum until 2018, and thus it is a new challenge for Early Years professionals (Børne og Socialministeriet 2018). Transforming our life-style in a much more green direction, quickly, requires the disruption of resilient, but inherently unsustainable routines, habits, values and lifestyles, that adults' of the former and current generation has largely maintained (Kelsey 2014). It is a major challenge, that the adults in power, both professionals and parents, to a large extent still practice unsustainable consumerism in most parts of the world - yet are the only role-models to facilitate for change in children through education and upbringing (Gibson et al. 2015). Providing education and upbringing in new ways for an un-known future is a difficult task for professionals in ECEC and one in need of articulation and collaborative efforts between research and practice (Ødegaard 2021). There is a need for a radical turn from education about nature (as something external to us we can consume and use) to an approach in education that highlight ourselves as part of nature, an education *for* and *with* nature (Grogan & Hughes 2020). We suggest the term of World-Care to denote such a caring attitude towards oneself and other living beings as part of a shared mutual world. In the early years of life the window for direct sensory experience and attachment to other people is wide open, along with the possibility to develop existential meaningful attachments to other forms of life and environments (Bowlby 1994, Køster & Winther-Lindqvist, 2018). The Danish model of Early Years Education (with more than 90% starting in nursery around 12 months), allows for an intervention with great potential; because small children are only beginning to form habits, and their families are closely involved with cooperating with ECEC. Most good habits are equally relevant in the home setting, and therefore the parents are important allies (Buxarrais & Escudero, 2014) in the green transition agenda - but how? Confronting children with the current crisis, involves a substantial risk of over-burdening them with responsibility and worry. To grapple with this challenge, we propose a shift in perspective from focusing on *learning* – to focusing on *caring and development*, when it comes to Early Childhood Education for Sustainability (ECEfS). Such a shift is desirable because the dominant learning paradigm in education has largely failed in providing true transformative changes when it comes to

sustainability. There is no guarantee that *learning* about nature and the environment will also lead to more caring and sustainable lifestyles and attitudes towards the world and our place in it. Actually, the extensive knowledge achieved through advanced studies in a Western philosophical conviction of “Man versus Nature” has allowed us to develop the modern civilization – and to exploit natural resources so skillfully (Wals 2017). For change, we suggest that a foundation for ECEfS is caring – and we suggest the term World-Care to account for a new conceptual framework for transformative practices in the ECEC field. However, this provides yet a new challenge. To care is also to take responsibility and to worry (Tronto 1993, Hägglund 2019). Increased awareness of the unsustainable current state of affairs come with a high price in terms of mental health issues, and in Australia where children are well aware of the eco-crisis, there is also an increase in anxiety and hopelessness (Wals 2017). The challenge is nurturing World-Care in children, without overwhelming them with eco-anxiety as a result (Kelsey 2014). Our suggested focus provides then three challenging research questions addressed in this project:

- 1) How to encourage and foster a caring attitude towards the non-human world, incl. biodiversity and sustainability without overburdening young children with eco-anxiety and powerlessness?
- 2) What narratives of nature and the natural environment, sustainability and green transformation are 2-5 years old children introduced to in everyday life of ECEC, both from professionals, parents and cultural products?
- 3) What professional resources are needed to provide for better World-Care in ECEC?

### **State of the art**

The research questions posed in this project are not properly considered in the current field of ECEfS. In Denmark, this agenda of green transformation in ECEC area is quite new and still underdeveloped (Broström & Frøkjær 2019, Husted & Frøkjær 2019, Jørgensen et al 2017, 2020). The experiences remain much on the level of concrete projects, for instance on how to sort waste and recycle, or how to enhance learning about natural phenomena through growing vegetables in a nearby garden or playing in the forest (Jørgensen & Madsen 2020). The historical and current theoretical underpinnings of the field of ECEfS is theories of learning (Vare & Scott 2007, Elliott et al 2020, Hedefalk et al 2014). Learning about the environment has been the influential approach up until recently, and learning in the traditional understanding equals individual behavioral changes (Læssøe 2020). However, in recent years a growing critique of the behavioral “facts-about-nature-approach” has been supplemented with or replaced by a more collaborate, open-ended, democratic based education where critical thinking rather than fact-learning is advocated for (Læssøe 2020).

Alongside, a range of new theoretical inspirations, like colonial-theory, post-humanism, etc. (Elliot et al 2020). Despite differences, it is consensual now, to involve children directly as active and equal agents in collaborative research in the efforts for green transition (Caiman & Lundegård 2014, Årlemalm-Hagsér 2014, Taylor 2020, Hacking et al 2007). As developmental psychologists we find it positive with a more collaborative open-ended approach to learning, however it is problematic if children and adults are regarded as equals in this transformation process. We need to protect the children from negative side-effects of green transition by ensuring that adults take responsibility. We believe we can achieve increased World-Care without eco-anxiety, when applying a *developmental psychological approach to children and to caring* - which is largely absent in ECEfS field at present. 2-5 years old children are indeed active participants, but they are vulnerable too with no understanding of natural mechanisms involved in pollution, climate change, biodiversity and sustainability. Young children's sensory inter-affective, concrete cognition, ability to form attachment, imagination and divergent thinking is well documented in developmental psychology and need to be taken into account when working with this group and sustainable transformation (Bowlby 1994, Vygotsky 1998). In order to address green transition, we aim at developing and formulating a new conceptual framework around World-Care by proposing a theoretical synthesis between relational-care ethics (Tronto 1993, Noddings 2012), phenomenology (Nortvedt & Vosman, 2020; van Manen, 2015, Candiotta 2016) and cultural historical wholeness approach to development (Vygotsky 1998, Hedegaard 2012, Winther-Lindqvist 2020).

### **The research proposal – Research design**

Taking children's development and vulnerabilities into account when conducting research and building the basics of education for sustainability we propose a design collaborating with professionals and parents (rather than children) in developing green practices and World-Care. We only directly address the children in the final stage of the project, in order to see if the intervention shows any visible results in children's view on the world and their place in it (see project part 1). As a general approach, we apply a qualitative collaborative research methodology called "Research Circles" developed in Sweden, in order to bridge the gap between professional practice and research in education (Holmstrand & Härtsen 1995, Holmstrand 1997). Professionals and management in ECECs in the municipality of Fredensborg participate in the project and in Research Circle work. At each Circle meeting a challenge is decided upon and the practitioners, management and researcher discuss, reflect, and suggest ways of practicing World-Care in everyday activity settings of ECEfS. Each meeting ends with the researcher suggesting a new theme based on the content analysis of the meeting and this challenge is investigated in practice until the next meeting. The questions addressed in Research Circles involve: How can we understand the way children orient

themselves in the world as a basis of World-Care? How can we address issues of green transition to concrete thinkers who perceive of the world largely from an embodied here and now perceptual field? How can we engage children's imagination in order to enhance World-Care and agency towards new practices that are more sustainable? What do professionals need in order to support and develop a world-caring attitude in themselves and the children? Our goal as researchers are to support the formation of learning environments that encourage World-Care in both pre-school children and in professionals, so that professionals can act responsibly as role-models exploring local sustainable solutions together with children. We entirely avoid scary narratives and danger-stories in our own interventions. Instead, we explore new practices that introduce World-Care as a caring motivational attitude and basis for analysis and action (like changing habits) – all the time adjusted to the scope of relevance and meaning-making of 2-5 year olds in ECEC.

**Senior Project (part 1): How to create the foundation of World-Care together with professionals and children in ECEC? Ass. Prof. PI, Ditte Winther-Lindqvist, Ass. Prof. Anne Maj Nielsen**

Nielsen and Winther-Lindqvist mainly address research questions 1 and 3. They run a Research Circle in project institution Kokkedal and Humlebæk, one general facility each. After a project period of 12-16 months with 6 circle meetings in each facility, we make an experimental workshop with children from the project institutions and similarly with randomly chosen control ECECs. We interview 20 children, 5 years old, in each setting, in a way adjusted to their repertoires of embodied thinking and articulation (Nielsen, 1999, 2017). We ask them to make a drawing of themselves in a natural environment they like, and to draw as many living beings they know in that environment. The children are asked in language and/or drawing to describe and explain their understandings of needs and lifecycles of the living beings they have drawn. They are asked to describe how they imagine a good natural environment for a specific living being, and what we can do to care for such a natural environment. We analyze differences and similarities between choice of picture motive, placing of the self in the picture, and variability and concreteness of understandings and imaginations, and compare the results to pictures and stories created by children in control ECEC's. We investigate if children from project institutions have more vivid, detailed and agency based ideas and visualizations of the natural environment, compared to children from control ECECs? (Carr and Plevyak 2020; Nielsen 2013, 2014; Pink 2013). Are the pictures and narratives communicating agency and a caring attitude? Are the children anxious/worried? What attitudes towards the non-human world, incl. biodiversity and sustainability, are prevalent in the children's articulations, and are these different between project institutions and controls?

**Postdoc project, (part 2, NN): How to work with World-Care among professionals: What is needed to become good role-models for children in terms of resources, challenges, and potentials for a green transition within ECEC?**

The postdoc project address all research questions, yet, is the only project providing empirical material from a six month ethnographic field-work. One of the tasks in the fieldwork is to identify the cultural and symbolic resources involved in addressing sustainability and world care in everyday life of ECEC (Duveen & Lloyd 1993). In combination with Research Circle work and workshops, it is investigated how professionals perceive of the task of creating foundations for World-Care in children. How is the general theoretical framework introduced and explored in Research Circles, and translated into locally situated, different initiatives for change, in the facilities. This includes analysis of practices in ordinary activity settings (meal-time, circle-time, play-time) and how sustainability and green transition efforts are present in these. However, also in children's books, and popular culture about nature, the children are exposed to narratives about nature and sustainability which strongly influence their appreciation and apprehension of these phenomena (Enli, 2013; Nielsen, 2001). The postdoc thus uncovers and analyze how nature, living beings and their environment is understood by the professionals – as well as communicated to children in cultural products in ECEC everyday life.

**Project part 3: Green transition and World-Care from a family perspective, Ass. Prof. Dorte Kousholt**

Ass. Prof. Dorte Kousholt explore the parents' views from a family perspective and thus primarily investigate research question 1 and 2. Young children's lives, their worldview, habits, and basic orientation is developed in and across the institutional settings of both home and ECEC context (Kousholt, 2011, 2019). Changing everyday life practices in families and ECEC is contingent on collaboration with parents. Therefore, an initiative in the ECEC facility around green transition and sustainability needs to include a parental and family perspective in order to identify potential dilemmas, conflicts and cooperative efforts and possibilities in and across home and ECEC. How do parents perceive of the sustainability challenge in ECEC and in general? Are they aware of or worried about protecting children from eco-anxiety, or is this not an explicit concern? How do they perceive of their own role and resources regarding supporting and taking part in green transition together with their children? Through semi-structured interviews with parents to children in the project institutions, we investigate the themes and challenges across home and ECEC environment, at the start of the project and after the Research Circle investigation, in order to trace potential changes and developments in understandings of green transition, agency and project impact.

### **The project group and management**

The project will be administered by the Danish School of Education (DPU), Aarhus University and managed by Ass. Prof. Ditte Winther-Lindqvist (PI), who has extensive research experience within the field of ECEC and is research program leader in the ECEC field at DPU. PI has recently formulated new conceptual ways of understanding care from a wholeness approach to early years education (Winther-Lindqvist 2020). Winther-Lindqvist will supervise the postdoc student, and the whole group will work in close collaboration. The postdoc will be recruited via an open international call. The senior researchers in the group all have extensive experience with qualitative research methods in the field of early years education, young children, and family life (see list of publications attached), and PI has prior experience with the particular research methodology of Research Circles (Winther-Lindqvist 2021). As experts on theory and practice of ECEC, professional development, and developmental psychology we are highly qualified to both ensuring the right learning environment for the professionals encouraging and exploring the intervention process as well as managing the risk of eco-anxiety in children at the same time.

### **Timeline, tasks and milestones in the project**

The PI ensures project management throughout the project period ranging from ensuring contact and involvement of the policy level and recruiting children for the control interviews. However, it is the organisation of the project with a shared empirical approach in Research Circles and interviews, as well as the unified theoretical framework that ensures synergy between the different parts of the project. Research meetings every month among all research participants enable close collaboration, shared analysis and conceptual development across the interplay between different empirical materials generated in the project institutions and with children and their families. Our meetings with the advisory board and the research stay in Bergen ensures international dialogue and exchange of ideas both with regards to methods, impact, dissemination and conceptual development.

	Time: A=Autumn, S=Spring					
Tasks	A22	S23	A23	S24	A24	S25
Recruiting postdoc	DWL					
Literature review	DWL AMN DK	Postdoc				
Project organising	DWL	DWL	DWL	DWL	DWL	DWL
Research circles (Kokkedal)		DWL Postdoc	DWL Postdoc			
Research circles (Humblebæk)		AMN Postdoc	AMN Postdoc			
Ethnographic fieldwork			Postdoc			
Analysis/ writing articles			All	All	All	All
Advisory board seminar		All			All	
Interview with parents		DK		DK		
Research stay (Bergen)				DWL AMN Postdoc		
Interviewing children in project institutions and controls				DWL AMN		
UNESCO CHAIR report		DWL AMN		DWL AMN		
Milestones/output			Seminar in Fredensborg		Closing conference at DPU	Anthologies
Conferences		CHACDOC	EECERA	ISTP		

DWL (PI/Ditte Winther-Lindqvist), AMN (Anne-Maj Nielsen), DK (Dorte Kousholt), Postdoc, All

## Impact on green transition and research output

There is an immediate and long-term impact to be expected from this project. The immediate impact rests upon the intervention itself, since the two project institutions, house more than 150 professionals, 10 daily managers, and app. 900 children and their families, who are expected to develop World-Care and more sustainable habits. The involvement of professional management in the Research Circles as well as the policy level in seminars and UNESCO reports are central for ensuring lasting impact of the intervention in the years to come (Jørgensen & Madsen 2020). The long-term impact relies on the dissemination for both practitioners and fellow researchers. The scientific dissemination of our results, will take place through publications in relevant journals (International Journal of Early Childhood Environmental Education, Journal of Sustainability Education, Environmental Education Research) and in two planned anthologies (one international, targeting other researchers in ECEfS/one in Danish targeting professionals). Our extensive international network and UNITWIN/PARTNERS of the UNESCO CHAIR is a relevant channel too. Empirical research results often illustrate examples of good practice and important experiences that are very local and concrete, and sometimes hard to replicate for others in different geo-socio-cultural settings. The true long-term impact relies therefore on our theoretical results and contribution in developing, formulating and disseminating a new general conceptual framework of World-Care as the foundation for ECEfS.