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Editors' Review of *Research in Early Childhood Education for Sustainability: International Perspectives and Provocations*

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Mounting concerns about climate change and unsustainable development, and their current and future impacts on all of us – but particularly on children - provided the impetus for this book. Then, as researchers in early childhood education (ECE) and/or education for sustainability (EfS), we used these concerns to shape and question our thinking. This first-ever research text in Early Childhood Education for Sustainability (ECEfS) was advanced when the chapter authors, almost all of whom participated in one or both *Transnational Dialogues in Research in Early Childhood Education for Sustainability* (Stavanger, Norway, 2010, and Brisbane, Australia, 2011) met for the first time - a critical mass of researchers from vastly different parts of the globe - Norway, Sweden, Australia and New Zealand at the inaugural meeting, with participants from Korea, Japan and Singapore attending the second. We came together to debate, discuss and share ideas about research and theory in the emerging field of ECEfS. An agreed-upon outcome of the Dialogues was this text.

Rationale

The overall purpose of the Transnational Dialogues and this text was to fill the research gap in ECEfS. Elsewhere, we have identified that research in this field has been very limited. Our belief is that early childhood practitioners - the main advocates for EfS - have had little research evidence to guide practices in this new pedagogical space. ECEfS is NOT the same as school EfS. We wanted to ensure that what was emerging in both practice and research reflected the specialness of EC, so that educators could relate to and contribute fully to the educational transformations that lie at the heart of ECEfS. Further,

we wanted to provoke early childhood education researchers - well, at least a few! - to focus on this emerging area. We believe this text achieves these two goals.

It is important to emphasize that the text is not simply a compilation of what is happening in ECEfS generally. The Dialogues and the text have a particular orientation – exploration of ECEfS from the perspective of young children as central - as thinkers, problem-solvers and agents of change for sustainability. We were not interested, for example, in researching nature education/outdoor education - although we appreciate their value - except as these approaches support or may hinder children’s capabilities to engage in sustainability issues and topics. The approach to ECEfS, and therefore the research promoted in this text, is of children working authentically to explore sustainability topics/issues of interest to them, while working alongside teachers, families and communities in solving problems, seeking solutions and taking actions that ‘make a difference’, mostly within their local context, but occasionally on a bigger stage. The contributing researchers have clearly articulated their support for this orientation through their individual chapters.

Profiling the chapter authors

The Dialogues participants included experienced, mid-career, and early career researchers, those underway with doctoral studies or yet to commence. The varied levels of research expertise and experience are reflected in the chapters. A number of contributions take a strongly philosophical and theoretical lens to topics concerning young children and EfS. Most, however, focus on observations, analysis and critical reflections of practitioner curriculum and pedagogical approaches. Like Hart (2002), we consider practitioner research as ‘knowing that comes from within the action’ (p.146) and, as researchers, we are ‘exploring the possibilities of theorizing with [teacher] stories instead of about them’ (p.155). At the same time, we acknowledge that this practitioner focus is evidence of a nascent field where it is practitioners, rather than theorists and researchers, who have driven the uptake of ECEfS. Now, however, we believe it is time to turn a more scholarly eye to what is being enacted and to explore approaches and practices more deeply and critically. Hence, we see this text as evidence that the field, more generally, is beginning to mature.

SUMMARIES OF CHAPTERS

Foreword – Daniella Tilbury, United Kingdom

Here, Professor Tilbury emphasises the value of this text in bringing together the fields of early childhood education and education for sustainability. She highlights the importance of the book’s stance in profiling both international research perspectives and diverse research approaches. She identifies that the focus on children as having agency, and the

imperative of families and communities being engaged in ECEfS, as offering important contributions to EfS more broadly.

Introduction – Framing the text – Julie Davis and Sue Elliott, Australia (co-editors)

In this introduction, the co-editors outline their rationale for the text, primarily to ‘fill the gap’ in research in ECEfS. They provide an overview and critique of the chapters as a collection, emphasising the importance of international perspectives and a multiplicity of research orientations to this emerging field of enquiry. The co-editors identify three clusters in the research chapters: 1. three chapters focused on values and ethics; 2. four chapters representing historical threads and a range of sociocultural contexts in ECEfS, and 3. eleven chapters focused on curriculum and pedagogy.

Chapter 1 – Revisioning rights – Julie Davis, Australia

In this first chapter in Cluster 1, co-editor Davis calls for rethinking the rights base of early childhood education (ECE) which, to date, has relied on the United Nations Convention on the Rights of the Child (UNCRC) (UNICEF, 1989). She argues that while the UNCRC still serves an aspirational purpose, it offers too narrow a concept of rights for enacting ECE in the 21st century given the challenges of sustainability. She proposes a 5-dimensional approach to rights that supports the foundational rights of children as espoused in the UNCRC, and the call for agentic rights as advocated more recently by many early childhood academics and practitioners, as well as rights that acknowledge communitarianism (We are all in this together), intergenerational rights (Our legacy to our children and grandchildren), and bio/ecocentric rights (non-human species and environments have rights).

Chapter 2 – Value conflicts and children’s rights – Solveig Hagglund and Eva Johansson, Sweden

The Swedish authors of this chapter elaborate a view of EfS as a matter of human – and hence of children’s - rights. They draw on theoretical concepts and models within childhood sociology, in particular its conceptualization of how societal and generational aspects of childhood restrict and limit children’s possibilities to participate in society, and from conflict theory that opens up a perspective that value conflicts are inevitable when approaching sustainability as a democratic human right. They draw on Nordic research to offer responses to the power issues that arise when discussing sustainability and education, and provoke readers with questions and challenges when learning for sustainability is to be enacted within early childhood education.

Chapter 3 – Learning from the wisdom of elders – Jenny Ritchie, Aotearoa, New Zealand

This researcher offers a series of provocations - coming from a critical, place-based orientation - about ways that EC educators might develop relationships with Indigenous peoples, in order to strengthen the Indigenous understandings that they seek to incorporate within programs. Dialogical interaction with Indigenous peoples and with the local place is seen as a source for interpreting ways of caring deeply for our planet, positioning humans alongside local ecologies as 'co-habitators' of the earth. The chapter provides research examples that illustrate some of the ways these notions have been applied within early childhood care and education programs in Aotearoa, New Zealand.

Chapter 4 – Embedding Indigenous perspectives – Melinda Miller, Australia

In this first chapter in Cluster 2, the author discusses embedding Indigenous perspectives in ECEfS and how this can uphold social and political action goals that support a holistic approach to promoting sustainability in EC contexts. The chapter explores how intercultural dialogues and priorities can foreground broader themes of sustainability that attend to local issues around culture, diversity and equity in relations between groups of people. The author emphasises that strengthening intercultural priorities in ECEfS requires a commitment to reflective practices that accord the influence of one's own cultural background on teaching and learning processes.

Chapter 5 – Perspectives on ECEfS in Japan - Michiko Inoue, Japan

This researcher notes that Japan has a long history of early childhood education beginning in the 19th century, and that environmental education was first introduced into the national curriculum in 1980s. However, both streams, early childhood education and environmental education, have never been combined into a field such as ECEfS. She then outlines analyses of official guidelines and the work of academics and educators that demonstrate limited concern for environmental education in early childhood education and discusses the necessity for rethinking early childhood education in Japan in light of sustainability challenges. She concludes by discussing the need to consider the diverse cultural contexts into which ECEfS must fit if an international movement is to become effective.

Chapter 6 - Building a sustainable nation in Singapore – Hui-Ling Chua, Singapore

This researcher begins by outlining Singapore's necessity for its *National Green Plan* that includes delivery of environmental education, for the long-term survival and the wellbeing of its people. She comments, however, that environmental education programs targeted at early childhood are few. This chapter provokes consideration of how the ECE community may emerge as a strong partner in the building of Singapore as a sustainable nation. However, she offers that a critical reading of current policies and curriculum

guidelines, together with her research findings indicates that the implementation of ECEfS in Singapore is problematic. The chapter concludes with a summary of actions and a call to the early childhood community to acknowledge ECEfS in professional practice.

Chapter 7 – Norwegian perspectives on ECEfS – Barbara Sageidet, Norway

This researcher identifies that ideas about sustainability have long been part of Norwegian public thinking and that the National Framework for early childhood education broadly recognises sustainability as part of the content area 'Nature, Environment and the Techniques', but that little is actually known about the role of EFS in the everyday life of kindergartens. The chapter offers insights into ECEfS in Norway, and discusses challenges and possibilities related to ECEfS, based on literature studies and an interview with an experienced Norwegian environmentalist.

Chapter 8 – Researching change and theorising about interfaces – Sue Elliott, Australia

In this first chapter of Cluster 3, co-editor Elliott discusses how implementation of ECEfS is often explicitly linked with natural playspaces in early childhood settings, but she questions just how well such playspaces offer contexts for ECEfS. The research project on which this chapter is based involved Critical Participatory Action Research with two Australian case study early childhood centres. In an attempt to better understand the natural outdoor playspace as a context for ECEfS, a theoretical framework is proposed informed by Sterling's (2001) nested systems theory. The chapter identifies that getting started with sustainable practices may provoke educators to think and act differently not only about sustainability, but also about early childhood pedagogy and philosophy.

Chapter 9 – An AuSSi EC adventure – Tracy Young & Amy Cutter-Mackenzie, Australia

These two Australian researchers worked with the school-based Australian Sustainable Schools Initiative (AuSSI) as a framework for implementing ECEfS. Their chapter reports on findings of the Sustainable Early Childhood Project (SECP) in which four Australian children's services and an early childhood education researcher implemented an early childhood version of AuSSI that saw early childhood educators and researchers proactively adapting and implementing AuSSI. The chapter offers insights into what AuSSI might look like in early childhood settings with the discussion centred on the theme of community engagement.

Chapter 10 - The Project Approach in ECEfS: Exemplars from Korea and Australia - Okjong Ji, Korea, and Sharon Stuhmcke, Australia

This chapter presents two case studies about young children participating in EFS projects in Korea and Australia. Both are adaptations of the Project Approach (Katz and Chard, 2000) which encourages lengthy exploration of topics and themes, and supports deep

learner engagement. The projects outlined in this chapter synthesize constructivism and co-constructivism with transformative teaching and learning, drawn from EfS. The result is a transformative project approach where young children demonstrate problem-solving and leadership within their local communities to create and implement sustainable practices.

Chapter 11 - Valuing agency in young children - Glynne Mackey, Aotearoa New Zealand

This chapter investigates how the early childhood curriculum might confront sustainability and how teachers are searching for ways to create a culture that embraces meaningful and transformative experiences that may empower children. The research data from teachers explores the challenges, and successes involved in establishing sustainability programs, while the data from children demonstrated their sustainability understandings and active participation. The teachers' conversations and reflections revealed how they valued young children's agency, and how this contributed to creating centre cultures of sustainability.

Chapter 12 - I want to do real things - Louise Phillips, Australia

Framed within communitarianism, this chapter explores possibilities for young children's active participation in sustainability. Two research studies are offered; one explored a living theory of storytelling pedagogy, whilst another investigated the scope of public pedagogy to cultivate shifts in social perceptions of children and citizenship. Data from both studies demonstrated that children wanted to be active citizens. The ideas discussed alert educators, policy makers and community workers to the complexities that surround notions of young children's active citizenship and provide guidelines for young children's inclusion in civic participation for sustainability.

Chapter 13 - EfS in Swedish preschools - Ingrid Engdahl and Eva Ärlemalm-Hagsér, Sweden

The chapter authors share their understandings of EfS in Swedish preschools by reviewing research in this emerging field, and then offer a discussion about EfS projects in Swedish preschools. In particular, a recent international OMEP project is cited. Insights into high quality EfS pedagogy are evident, along with provocations for the field to stimulate deeper thinking about EfS in early childhood education. The authors question, *Are Swedish preschool teachers 'stepping out or out of step' with respect to sustainability?*

Chapter 14 - Innovative approaches to ECEfS in England - Robert Barratt, Elisabeth Barratt-Hacking, and Pat Black, UK

The authors argue that free play in natural environments, provides the foundations for ECEfS, yet current early years policy negates such opportunities for young children in

England. Four case studies of early year's settings are used to illustrate ECEfS approaches. An analysis of documentation and external inspection reports found four distinctive approaches to EfS including: (1) sustained authentic outdoor play; (2) place-based learning; (3) free play and risk-taking in the outdoors; and (4) participation in developing a sustainable school curriculum. For each case study there was evidence of the positive impact of EfS on children's learning.

Chapter 15 - ECEfS in the USA - Louise Chawla and Mary Rivkin, USA

Research on significant life experiences in the development of active care for the environment indicates the importance of extended free play in nature in early childhood, and adults who encourage appreciation for the natural world. Ecological psychology provides a framework for understanding these research outcomes, and highlights the importance of children having opportunities to assume responsible roles in their communities, including collective environmental action. Initiatives in the USA which illustrate these components of EfS, including nature-based preschools, forest kindergartens, Green Schools and community-wide partnerships to integrate children into actions for sustainability are outlined.

Chapter 16 - The Arts and EfS - Lyndal O'Gorman, Australia

This chapter explores how integration of the Arts and EfS can provide expanded opportunities for seeing, understanding and responding to the sustainability imperative. Such approaches encourage broad engagement and expression of ideas about sustainability beyond the languages of the Sciences and Geography. Traditionally, the Arts have been valued highly by the ECE field and increasing engagement with the sustainability suggests that teachers might find ways to integrate ECEfS with the Arts in meaningful ways. This chapter explores how an integrated Arts and Humanities subject in an ECE teacher education course provided a context for the integration of sustainability as a cross-curricular thread.

Chapter 17 - Science in preschool – a foundation for EfS? - Bodil Sundberg and Christina Ottander, Sweden

The authors elaborate on how science encounters in preschool are a means of empowering children to engage with sustainability. Recent research has argued for a shift from viewing science in preschool as mainly nature experiences, towards science inquiry. By doing so, the interplay between knowledge, values and the ways in which humans build and make use of new knowledge can become visible, thus laying a foundation for EfS. Implementation of science inquiry processes in preschools necessitates changes in preschool teachers' personal and professional views of science, nature and pedagogy. In this research, how competency in inquiry-based teaching may, or may not, develop during pre-service preschool teacher education was investigated.

Chapter 18 – ECEfS in the United Kingdom - Louise Gilbert, Mary Fuller, Sally Palmer, and Janet Rose, United Kingdom

This chapter reviews the ways in which higher education can engender professional capital to facilitate and normalize a 'culture of sustainability' in the early years. Two recent studies demonstrate the transformative effect that active engagement with a variety of sustainability issues can have on the development of practitioners' professional capital, and how this can be translated into the promotion and implementation of ECEfS. In seeking to promote transformative mind-sets, opportunities were created for practitioners to become agents of change and the - as influential role-models - to empower children to contribute actively to sustainable futures.

Chapter 19 - Expanding worlds of ECEfS - Ann Farrell and Susan Danby, Australia

Transnational Dialogues in ECEfS represent a confluence of two globally-significant fields of research and practice: ECE and EfS at a critical time for young children and their worlds. This concluding chapter is framed around looking backwards to the international prioritising of agendas for both sustainability and ECE and looking forwards to new priorities in research and practice to ensure that young children, both now and in the future, are participatory, ethical and sustainable.

WHAT NEEDS FURTHER ATTENTION IN ECEfS RESEARCH

This publication as a first-ever ECEfS research text offers an opportunity to pause and reflect amidst the celebration of an important milestone. We offer the following questions to guide the next phases of this journey into ECEfS research: *Why has it taken so long to reach this milestone in ECE given the dire state of the Earth? How can the missing research voices be heard from countries and regions where, often, the ecological foot print is least? What theoretical frames and methodologies beyond this initial publication offer scope for investigation of EfS in early childhood contexts? How can we build and strengthen an international research community in ECEfS to consolidate the place of early childhood within the broader EfS research field? What synergies might transpire when early childhood is equally recognised within the current suite of EfS research?*

CONCLUDING COMMENTS ABOUT THIS RESEARCH TEXT

This publication is only the first step in bringing ECEfS research to a wider audience. In sustainability, one must start with small steps to 'make a difference'. However, it is past the time for everyone to be much bolder if we are to address our century's challenges. We invite researchers and practitioners to action change in their spheres of influence, and beyond, for a sustainable future for ourselves, our children and future generations.

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