

Cambridge University Press

978-1-107-63634-7 - Young Children and the Environment: Early Education for Sustainability: Second Edition

Edited by Julie M. Davis

Frontmatter

[More information](#)

Young Children and the Environment

Early education
for sustainability

Second edition

Young Children and the Environment is a practical resource that illustrates the difference that early childhood educators can make by working with children, their families and the wider community to tackle one of the most important contemporary issues facing the world today: sustainable living.

This second edition has been substantially revised and updated, with a new section exploring sustainability education in a variety of global contexts. Researched and written by authors recognised as leaders in their own countries, the chapters in this section provide readers with international resources and perspectives to further their teaching about early childhood education for sustainability.

The text engages with new curriculum initiatives that have placed greater emphasis on educating for sustainability, and endeavours to equip educators with the knowledge to teach this revised content. It remains accessibly written, with ample case studies, vignettes and ‘provocations’ to engage and enlighten readers, and to provide insights into how early childhood education for sustainability can be successfully implemented in practice.

This is an essential text for students at the beginning of their early childhood studies, as well as teachers and practitioners in a range of early childhood education and care settings.

Julie M. Davis is Associate Professor in the School of Early Childhood, Faculty of Education, at the Queensland University of Technology in Brisbane, Australia.

Cambridge University Press
978-1-107-63634-7 - Young Children and the Environment: Early Education for Sustainability: Second Edition
Edited by Julie M. Davis
Frontmatter
[More information](#)

Cambridge University Press

978-1-107-63634-7 - Young Children and the Environment: Early Education for Sustainability: Second Edition

Edited by Julie M. Davis

Frontmatter

[More information](#)

Young Children and the Environment

Early education
for sustainability

Second edition

Edited by Julie M. Davis



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press

978-1-107-63634-7 - Young Children and the Environment: Early Education for Sustainability: Second Edition

Edited by Julie M. Davis

Frontmatter

[More information](#)

CAMBRIDGE
UNIVERSITY PRESS

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781107636347

© Cambridge University Press 2015

This publication is copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2010

Reprinted 2011, 2012, 2013

Second edition 2015

Cover designed by Anne-Marie Reeves

Typeset by Integra Software Services Pvt. Ltd.

Printed in Singapore by C.O.S. Printers Pte Ltd

A catalogue record for this publication is available from the British Library

A Cataloguing-in-Publication entry is available from the catalogue of the National Library of Australia at www.nla.gov.au

ISBN 978-1-107-63634-7 Paperback

Reproduction and communication for educational purposes

The Australian *Copyright Act 1968* (the Act) allows a maximum of one chapter or 10% of the pages of this work, whichever is the greater, to be reproduced and/or communicated by any educational institution for its educational purposes provided that the educational institution (or the body that administers it) has given a remuneration notice to Copyright Agency Limited (CAL) under the Act.

For details of the CAL licence for educational institutions contact:

Copyright Agency Limited

Level 15, 233 Castlereagh Street

Sydney NSW 2000

Telephone: (02) 9394 7600

Facsimile: (02) 9394 7601

E-mail: info@copyright.com.au

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Cambridge University Press
978-1-107-63634-7 - Young Children and the Environment: Early Education for Sustainability: Second Edition
Edited by Julie M. Davis
Frontmatter
[More information](#)

To all the world’s children – today and tomorrow.

Cambridge University Press
978-1-107-63634-7 - Young Children and the Environment: Early Education for Sustainability: Second Edition
Edited by Julie M. Davis
Frontmatter
[More information](#)

Contents

Foreword	<i>page</i> xiii
Contributors	xv
INTRODUCTION	1
Part 1	5
CHAPTER 1 WHAT IS EARLY CHILDHOOD EDUCATION FOR SUSTAINABILITY AND WHY DOES IT MATTER?	7
Julie M. Davis	
This book’s purpose	8
Why this book is important	9
What is sustainability and why does it matter?	9
Young children and sustainability	14
What is education for sustainability (EfS)?	16
A role for early childhood education for sustainability (ECEfS)	20
Final thoughts: Children’s rights in the age of (un)sustainability	25
Conclusion	27
References	27
CHAPTER 2 CHILDREN IN THE NATURAL WORLD	32
Sue Elliott	
Introduction	33
Nature as a human construct and evolving human–nature relationships	34
Nature: A critical element in children’s health, wellbeing and development	42
The argument supported by pedagogy	44
Drawing links between children in nature and EfS	47
Conclusion	48
References	49
CHAPTER 3 LEADERSHIP FOR CREATING CULTURES OF SUSTAINABILITY	55
Megan Gibson	
Introduction	56
Part one: The context	57
Part two: Leadership matters	63

Contents

	Conclusion	73
	References	74
CHAPTER 4	PRACTICAL POSSIBILITIES AND PEDAGOGICAL APPROACHES FOR EARLY CHILDHOOD EDUCATION FOR SUSTAINABILITY: THE KENMORE WEST STORY	76
	Robert Pratt	
	Introduction	77
	My philosophy	77
	Teaching and learning possibilities and practices	80
	Teaching and learning to connect with nature/community	88
	Sustaining sustainability: Whole-centre organisation and management possibilities	94
	Conclusion	95
	References	96
	Appendix 1: Risk–benefit assessment for creek excursion	98
	Appendix 2: Parent guidelines for creek excursion	100
	Appendix 3: Professional organisations that support ECEfS	101
	Appendix 4: Useful websites	101
CHAPTER 5	ETHICS AND PEDAGOGY AT THE HEART OF EARLY CHILDHOOD EDUCATION FOR SUSTAINABILITY	103
	Lesley Robinson and Sue Vaealiki	
	Introduction	104
	Ethical principles for ECEfS	104
	Unpacking the four ethical principles	106
	ECEfS pedagogies	112
	Conclusion	120
	References	121
CHAPTER 6	RECONCILIATION AND EARLY CHILDHOOD EDUCATION FOR SUSTAINABILITY: BROADENING THE ENVIRONMENTAL PARADIGM	124
	Melinda G. Miller	
	Introduction	125
	Reconciliation and sustainability	128
	Reconciliation in ECEfS: Complexities and cautions	131
	Conclusion	139
	References	140

Contents

CHAPTER 7	THE WORLD IS GETTING FLATTER: ICT AND EDUCATION FOR SUSTAINABILITY IN THE EARLY YEARS	145
	Margaret Lloyd	
	Introduction	146
	ICT and the 21st-century child	146
	ICT and EfS	151
	Conclusion	159
	References	159
CHAPTER 8	HEALTHY AND SUSTAINABLE ENVIRONMENTS FOR CHILDREN AND COMMUNITIES	162
	Sue Cooke	
	Introduction	163
	The changing ecology of childhood and its impact on health and wellbeing	163
	Growing healthy children – what it takes	167
	Promoting health in schools and early childhood settings: Better health, better learning	171
	Natural environments and children’s health and wellbeing	175
	Child-friendly cities and transition towns	180
	Conclusion	181
	References	182
CHAPTER 9	FOOD FIRST: BEGINNING STEPS TOWARDS CHILDREN’S SUSTAINABLE EDUCATION	187
	Nadine McCrea	
	Introduction	188
	Food first	189
	Children’s food learning with educators and families	193
	Conclusion	205
	References	205
CHAPTER 10	EARLY LEARNING FOR SUSTAINABILITY THROUGH THE ARTS	209
	Lyndal O’Gorman	
	Introduction	210
	Sustainability and the arts – the big picture	210
	Start with yourself – what are your attitudes to the arts and sustainability?	213
	The arts and sustainability working together in practice	216
	Conclusion	222
	References	223

Contents

CHAPTER 11	THE CHILDREN’S ENVIRONMENT PROJECT: DEVELOPING A TRANSFORMATIVE PROJECT APPROACH WITH CHILDREN IN A KINDERGARTEN	225
	Sharon Stuhmcke	
	Introduction	226
	Background	226
	Phases of the environment project	227
	After the project	241
	My reflections on the project: Developing the Transformative Project Approach	242
	Conclusion	245
	References	246
Part 2		249
CHAPTER 12	CARING FOR ONESELF, OTHERS AND THE ENVIRONMENT: EDUCATION FOR SUSTAINABILITY IN SWEDISH PRESCHOOLS	251
	Eva Årlemalm-Hagsér and Ingrid Engdahl	
	Introduction	252
	Preschools in Sweden	252
	EfS in Sweden	255
	The egg project – a case study	257
	Conclusion	261
	References	262
CHAPTER 13	BEYOND TRADITIONAL NATURE-BASED ACTIVITIES TO EDUCATION FOR SUSTAINABILITY: A CASE STUDY FROM JAPAN	264
	Michiko Inoue	
	Introduction	265
	Environmental education in Japan	265
	Nature education in early childhood in Japan	267
	Redesigning nature-based activities for sustainability	269
	Conclusion	274
	References	274
CHAPTER 14	EDUCATION FOR SUSTAINABLE DEVELOPMENT IN EARLY CHILDHOOD IN KOREA	276
	Okjong Ji	
	Introduction	277
	Education for sustainable development (ESD) efforts in Korea	277
	The Maebong Park Project as an example of early childhood ESD in Korea	279

Cambridge University Press
978-1-107-63634-7 - Young Children and the Environment: Early Education for Sustainability: Second Edition
Edited by Julie M. Davis
Frontmatter
[More information](#)

Contents

	Issues/challenges for ESD in early childhood in Korea	285
	Conclusion	286
	References	286
CHAPTER 15	EARLY CHILDHOOD EDUCATION FOR SUSTAINABILITY IN THE UNITED KINGDOM	287
	Louise Gilbert, Janet Rose and Paulette Luff	
	Introduction	288
	Early childhood education (ECE) in the United Kingdom	289
	Where to from here for ECEfS?	295
	Conclusion	296
	References	297
CHAPTER 16	USING RESEARCH AND A SYSTEMS APPROACH TO MAINSTREAM CHANGE IN EARLY CHILDHOOD EDUCATION FOR SUSTAINABILITY	301
	Jo-Anne Ferreira and Julie M. Davis	
	Introduction	302
	Creating change within ECE: The role of research	302
	Practical research strategies for ECEfS	303
	Creating system-wide, sustainable change within ECE	304
	Conclusion	313
	References	314
	Index	317

Cambridge University Press
978-1-107-63634-7 - Young Children and the Environment: Early Education for Sustainability: Second Edition
Edited by Julie M. Davis
Frontmatter
[More information](#)

Foreword

It has been a pleasure to read the new edition of this book, the first edition published five years ago being a pioneer in an area that focuses on how early childhood education can contribute towards a more sustainable world. There are now seven new chapters and all the others have been updated. The chapters contain a balanced mix of facts, illustrative examples and provocative questions, with the authors aiming to actively engage the reader to become involved in changing him/herself as much as changing his/her ideas about teaching and learning. The different chapters focus on early childhood educational settings as places for children’s actions related to the environment and sustainability and on related topics – such as health and wellbeing, embedding Indigenous perspectives, and community interactions – that are concerned with early childhood and children’s lives in a wider sense.

Although the focus here remains on questions related to the natural environment, the text gives a much broader view of what education for sustainability can be like. The dimension of social sustainability is highlighted more in this edition, for example, although environmental sustainability remains central. Convincingly, the authors show how urgent it is to transform our education systems in order to be cross-disciplinary, authentic and closely related to children’s everyday concerns and experiences. The reasons for this are global, in terms of justice, equality and equity, but also environmental, in terms of global climate change and issues such as food security.

While the book illustrates the need for global and community political commitments to sustainable living, it emphasises the importance of beginning with the youngest children. We know from years of research that the early years provide a window of opportunity to lay strong foundations for knowledge, skills and attitudes. We also know that there are international agreements and declarations that make commitments intended to guide policy, as well as everyday life for children, and those who work with children. One of these is the United Nations Convention on the Rights of the Child (1989). This Convention is the starting point for a theoretical framework of children’s rights that is argued for in this book – a development of ideas presented in the first edition. This framework revises thinking about children’s rights, proposing a multidimensional view that goes beyond the rights enshrined in the Convention, to consider more agentic and communal rights. This framework also proposes that rights

Foreword

belonging to beings other than humans is an idea that warrants consideration as an essential feature of early childhood education for sustainability.

Now, it looks like the United Nations has realised, in its work towards the post-2014 agenda following from the United Nations Decade of Education for Sustainable Development, that ‘Children are the common basis for all dimensions of sustainable development. No advances in sustainable development will occur in the coming decades without multiple generations contributing to societal improvement’ (Sustainable Development Solutions Network – A Global Initiative for the United Nations, 2014, *Young Children as a Basis for Sustainable Development*, <http://unsdsn.org/wp-content/uploads/2014/02/ECD-Brief1.pdf>, p. 1).

This book shows clearly that early childhood education of high quality is a good starting point for education for sustainable development, but that it is not enough in order to educate children for a more sustainable world and society. While the research field has expanded in recent years, and many more journals now include articles about early childhood education and sustainability, we still need to know much more, both through mainstream early childhood research, and through engagement in alternative cross-disciplinary research, methods and approaches, whereby the complexity of environmental and sustainability questions and issues can be explored.

This edition, like the first, will be of great value to pre-service teacher education all over the world, as well as to early childhood practitioners already in the field, to inspire them to change their practices. Researchers are another important target group, specifically those who want to approach this complex and challenging area of early childhood education and sustainable development. Last, but not least, this book will be of value to our politicians, who still need to become much more aware of how economy, social-cultural dimensions, and environment are intertwined and, in so doing, help create possibilities for working towards a sustainable world and society at all levels, beginning in the early years and proceeding throughout life.

Ingrid Pramling Samuelsson

UNESCO Chair of Early Childhood Education
and Sustainable Development

May 2014

Contributors

Eva Ärlemalm-Hagsér is Senior Lecturer in teacher education at Mälardalen University in Sweden. With a background as a preschool teacher, her main interests are early childhood education with a child-oriented approach, focusing on the lived curriculum. More recently, her research focus has been on outdoor play and learning, and education for sustainability (EfS). In 2013 Eva graduated from the University of Gothenburg with a doctoral thesis in EfS and young children. She has convened the Special Interest Group, Play and Learning, within the European Early Childhood Education Research Association (EECERA), since 2008. Eva is the Stockholm president of OMEP Sweden (Organisation Mondiale pour l'Éducation Préscolaire).

Sue Cooke (Susan M. Cooke) is a Brisbane-based educator, health promoter and climate activist, who has postgraduate qualifications in public health, education and environmental change. An advocate for 'green and healthy schools' (health-promoting and sustainable schools) over the 20 years since her children were little, she believes that early childhood and school settings can be powerful community generators for the transformational change needed to switch humanity's path towards healthy, just and sustainable futures.

Julie M. Davis is Associate Professor in the School of Early Childhood, Faculty of Education, at the Queensland University of Technology in Brisbane, Australia, where the focus of her work is integrating science, health, social and environment/sustainability education into early childhood education and teacher education. Julie has undergraduate qualifications in education and environmental studies, a master's degree in environmental education (focused on health-promoting schools) and a doctorate (focused on whole-school environmental education). Originally a local advocate for early childhood education for sustainability (ECEfS) for nearly 30 years, she now has extensive networks and research colleagues national and internationally.

Sue Elliott is Senior Lecturer in the School of Education at the University of New England in Armidale, Australia. She has been engaged in ECEfS advocacy and practice for more than two decades both nationally and internationally and is an acknowledged author in the early childhood field. Her publications include *The Outdoor Playspace: Naturally* (2008) and *Research in Early Childhood Education for Sustainability: International Perspectives and Provocations* (2014) and she is a consulting editor for the *International Journal of Early Childhood Environmental Education*. Sue has an ongoing involvement in research and consultancy in the areas of EfS and outdoor play in nature, including the development of forest preschool approaches in Australia.

Ingrid Engdahl is Deputy Head of the Department of Child and Youth Studies at Stockholm University in Sweden. Her academic interests are in EfS and early childhood education with a child-oriented approach, focusing on infants and toddlers. She lectures within teacher education

Contributors

programs and heads the International Program of Early Childhood Education at Stockholm Institute of Education. She serves as the national president of OMEP Sweden. Ingrid has a bachelor degree in psychology from Uppsala University, an early childhood education teachers' degree from Gothenburg Teacher College, and a doctorate in child and youth studies from Stockholm University.

Jo-Anne Ferreira teaches in the Master of Environment (Education for Sustainability) program at Griffith University in Brisbane. She was Editor of the *Australian Journal of Environmental Education* during 2002–09 and Co-Chair of the Sixth World Environmental Education Congress in 2011. She has worked in pre-service teacher education, and has developed and delivered professional development programs in Australia, South Africa and across the Asia-Pacific region. Jo has a number of doctoral students (researching school and community-based environmental/sustainability education) and is currently undertaking research on systemic approaches to change within pre-service teacher education and how environmental citizenship skills are taught and learnt through sustainability education.

Megan Gibson is a lecturer in the School of Early Childhood, Faculty of Education, at the Queensland University of Technology in Brisbane. Her key areas of research and teaching include teacher professionalism, leadership and management, policy, EfS, and health and wellbeing. An early childhood educator with nearly 20 years' teaching experience, Megan has worked across a diverse range of early childhood contexts. Her doctoral research focused on the production and maintenance of early childhood teachers' professional identities.

Louise Gilbert is a lead research associate on a project implementing a sustainable, community-wide, cross-disciplinary approach to promoting children's resilience and wellbeing through the use of Emotion Coaching at Bath Spa University in the United Kingdom. She is also involved in the development and delivery of the Attachment Aware Schools and Settings Project, which supports emotional wellbeing for vulnerable learners. Louise's working career is in health and education, having worked as a teacher, practised as a nurse, run a health promotion department and taught at the University of Gloucestershire in the position of Senior Lecturer in Early Years. She has co-written on early years education and training for sustainable futures and is currently writing a book with Dr Janet Rose on health and wellbeing in the early years. She is writing up her doctoral thesis on the transference of Emotion Coaching into community education practice.

Michiko Inoue is Professor in the School of Early Childhood, Faculty of Education at Osaka Ohtani University in Japan. She is a leader in environmental education and EfS at the early childhood level in Japan. More specifically, her interest is focused on conceptual understandings and the actual educational practices of educators in kindergartens and nursery centres to foster an

Contributors

ecological worldview. Currently, her research is concerned with comparing these aspects between Japan, Australia and Sweden.

Okjong Ji is Professor in Early Childhood Education at the Korea National University of Transportation in the Republic of Korea (South Korea, or ‘Korea’ for short). Her areas of interest are the Project Approach and nature-friendly education and, more recently, ECEfS. She is aiming to guide effective implementation of ECEfS in Korean kindergartens using the Project Approach. She is doing this as supervisor of the project learning community organised through the ‘Chungbuk Early Childhood Educator’s Community for Nature Appreciation’, which consists of eight early learning institutions for young children. In 2012, the Maebong Park Project that was initiated by this group received certification from the Korean National Commission for UNESCO as an excellent case study of education for sustainable development.

Margaret Lloyd is Associate Professor in the Faculty of Education at the Queensland University of Technology in Brisbane. Her specialist area is information and communication technologies (ICT) in education. She has published widely and has recently been involved in the consultations around ICT in the Australian Curriculum, with a particular focus on making digital technologies both child- and teacher- friendly. She believes that technology has a critical role to play in sustainability and that it is time to embrace it as part of a creative solution rather than reject it as part of the problem.

Paulette Luff is Senior Lecturer in the Department of Education at Anglia Ruskin University (in Chelmsford and Cambridge) where she leads the MA in Early Childhood Professional Studies program and teaches in other undergraduate and postgraduate courses, particularly modules relating to curriculum and professional enquiry. For the past 10 years, her research has focused on child observation and its role in the planning, implementation and evaluation of early childhood curricula. She has spoken and written on this subject for various audiences, including co-authoring two books. She is now engaged in a new project examining understandings and uses of reclaimed resources in different types of early years settings. Paulette has worked in the field of early childhood as a teacher, foster carer, school–home liaison worker, nursery practitioner and adviser, and as a lecturer in further and higher education.

Nadine McCrea grew up in the Sierra Nevada foothills of California before arriving in Australia. She joined the University of New England in 1998 after lecturing at the Queensland University of Technology in Brisbane. Before that, Nadine worked in the early childhood education field in Victoria. Her focal interests include leadership approaches in children’s services with an eco-angle; educative health promotion in early childhood settings; and early childhood eco-pedagogy focused on foodcycle learning. Nadine has a personal and professional commitment to sustainable awareness and eco-caring; she won a 2013 NSW Early Childhood Environmental Education Network (ECEEN) Sprouts Award for ‘leadership in mentoring many’.

Contributors

Melinda G. Miller is a lecturer in the School of Early Childhood, Faculty of Education, at the Queensland University of Technology in Brisbane. Her teaching and research interests include cultural studies, sustainability education, professional development and action research. Melinda’s doctoral research focused on non-Indigenous educators’ efforts to embed Indigenous perspectives in early childhood education curricula. The study highlighted how whiteness and racism continue to be mobilised in diversity work, even when educators’ efforts are seen to be productive and inclusive, and despite the best of intentions. In recent years, Melinda has facilitated numerous year-long action research projects with educators in the before-school sector and formal years of school, around topics including culture and diversity, play and sustainability.

Lyndal O’Gorman is Senior Lecturer in the School of Early Childhood, Faculty of Education, at the Queensland University of Technology in Brisbane. Her university teaching focuses on arts and sustainability education in early childhood and primary school contexts and her research and writing also explores these areas. Lyndal taught as an early childhood teacher in urban and remote schools for 13 years prior to her academic career. She has undergraduate qualifications in early childhood education and a strong personal commitment to the arts, and environmental and social sustainability.

Robert Pratt has worked in education for more than 20 years, with his teaching career spent largely in the early years (kindergarten and preschool), both in Australia and overseas. For four years, from 2009 to 2012, he worked in a primary school setting. Although a valuable learning experience, it reassured him that his passion lies in early childhood education. Central to Robert’s teaching approach is the concept of democracy. Robert’s position is that all members of an education community should have opportunities to contribute to curriculum decision making. While he believes that curriculum should be child-orientated, he is of the view that curriculum content should emerge not only from the interests of children, but also from the contributions of teachers, parents and the broader community. Robert believes that participating actively in a democratic learning environment is integral to ECEFS.

Lesley Robinson is a senior lecturer for Te Tari Puna Ora O Aotearoa, the New Zealand Childcare Association. This organisation delivers initial teacher education for the childcare sector and advocates for quality early childhood education throughout New Zealand. Lesley has an interest in post-modern perspectives on EfS. As a teacher educator, she is interested in exploring transformative pedagogy and in bringing sustainability into the centre of curriculum in initial teacher education.

Janet Rose is Principal Lecturer and the Award Leader for the Early Childhood Education at Bath Spa University in the United Kingdom. She has more than 20 years’ experience of working in the early years, both in England and internationally. In addition to her academic career, she has

Contributors

worked as a specialist early years teacher and for several local authorities developing training program for supporting young children. She has recently co-written a book on the role of the adult in early years settings and will soon publish a book on health and wellbeing in the early years. Janet is currently leading a research project that is implementing a sustainable, community-wide, cross-disciplinary approach to promoting children’s resilience and wellbeing. She is also developing the Attachment Aware Schools and Settings Project, which is a comprehensive program of support for children affected by early attachment difficulties, trauma and neglect.

Sharon Stuhmcke is a Vocational Teacher in the School of Community Services at Southbank Institute of Technology in Brisbane. She is an experienced early childhood practitioner with more than 20 years’ classroom experience, ranging from childcare and kindergarten to early primary teaching. Her key interest is EfS within early childhood contexts. Sharon has early childhood teaching qualifications and holds a master’s degree in early childhood education. She recently graduated from the Queensland University of Technology with a doctoral degree in education focused on EfS, for which she received an Executive Dean’s Commendation in 2013. Her chapter is derived from this doctoral research.

Sue Vaealiki is the Learning Programmes Director for Triplejump, a risk management advisory service company in Auckland, New Zealand, and is contracted to work with early childhood education services and tertiary organisations in a professional capacity as an adviser and monitor. For many years, Sue has been involved in developing initial teacher education programs that integrate EfS in holistic and thought-provoking ways based on the research she undertook when in the tertiary sector and through her involvement with early childhood centres in New Zealand.