

**The Global Values within
Education for Sustainable Development**

A Case Study of Education for Sustainable Development
in the Australian National Curriculum

Volume 1

Joy M. de Leo OAM

BA (Honours) (Flinders University)

GradDipEd (The University of Adelaide)

GradDipEd Counselling (University of South Australia)

Thesis submitted for the degree of
Doctor of Philosophy
in the
School of Education, Faculty of the Professions
The University of Adelaide

February 2012

TABLE OF CONTENTS

	Page
TITLE PAGE	i
TABLE OF CONTENTS IN VOLUME 1	ii
LIST OF APPENDIXES IN VOLUME 2	viii
LIST OF TABLES AND FIGURES	xvii
ABSTRACT	xviii
DECLARATION	xx
DEDICATION	xxi
ACKNOWLEDGEMENTS	xxii
ACRONYMS	xxiii
PREFACE	xxvi
CHAPTER 1: LIVING AND LEARNING IN A RUNAWAY WORLD	1
Introduction	1
The power of ideas	5
The contribution of the United Nations	14
Towards a National School Curriculum	18
Conclusion	20
CHAPTER 2: EDUCATION FOR SUSTAINABLE DEVELOPMENT	22
Introduction	22
What is Education for Sustainable Development?	22
<i>The evolving concept of sustainable development</i>	22
<i>The UN Decade of Education for Sustainable Development (DESD)</i>	27
<i>Clarifying terms used to describe ESD</i>	28
The evolution of Education for Sustainable Development	30
Implementing the UN Decade of Education for Sustainable Development	34
<i>Values-based Education for Sustainable Development</i>	35
<i>Multiple interconnected dimensions of Education for Sustainable Development</i>	36

<i>Links between the UN Decade for ESD and other UN initiatives</i>	39
Convergence of values-based educational areas towards ESD	40
Conclusion	44

CHAPTER 3: INVESTIGATING EDUCATION FOR SUSTAINABLE DEVELOPMENT

Introduction	45
Description of the investigation	45
<i>Structure and outline</i>	45
<i>Key documents</i>	47
<i>Analysis of the Australian National Curriculum</i>	50
Methods used in conducting the investigation	50
<i>Policy-oriented research</i>	51
<i>Content and text analysis</i>	52
<i>Use of information technology</i>	56
Justifying the validity of the findings	57
Conclusion	61

CHAPTER 4: EDUCATION AND VALUES **62**

Introduction	62
The nature and purpose of education	62
Understanding the nature of values	65
Clarifying values-related terms	68
Types and categories of values	72
Values in education or education in values?	78
Values education across time and cultures	80
Why values education, now?	88
The response of education to global challenges	96
Conclusion	102

CHAPTER 5: VALUES IN AUSTRALIAN SCHOOLING **103**

Introduction	103
--------------	-----

Values in education in Australia	104
<i>Values in the National Goals for Schooling</i>	105
<i>Values in Australian State and Territory educational jurisdictions</i>	106
Education in values in Australia	108
<i>The National Framework for Values Education in Australian Schools</i>	109
<i>Quality criteria for good practice values education in Australian schooling</i>	110
Evolution of Education for Sustainability (EfS) in Australia	113
<i>Australian Sustainable Schools Initiative (AuSSI)</i>	115
<i>AuSSI and whole school approaches to Education for Sustainability (EfS)</i>	117
Global Education in Australian Schooling	118
Conclusion	119
CHAPTER 6: GLOBAL VALUES FOR A SUSTAINABLE WORLD	122
Introduction	122
Global values	122
Analysis of global values	127
Origins of global values	135
Comparison between global and Australian values	142
Reconciling diverse values	145
Conclusion	147
CHAPTER 7: QUALITY TEACHING AND LEARNING FOR SUSTAINABILITY	149
Introduction	149
Quality Education for Sustainable Development	149
Supportive learning environments, relationships and modelling values	151
Values-based learning for Education for Sustainable Development	156
Developing the whole learner	163
Education for societal change and transformation	170
Engaging the whole school community in Education for Sustainable Development	175
Conclusion	178

CHAPTER 8: CURRICULUM FOR A SUSTAINABLE WORLD	179
Introduction	179
Knowledge for Education for Sustainable Development	179
Skills for Education for Sustainable Development	182
Integrated, trans-disciplinary curriculum for Education for Sustainable Development	187
Evaluative criteria for values-based Education for Sustainable Development	196
Conclusion	198
CHAPTER 9: INTRODUCING THE AUSTRALIAN NATIONAL CURRICULUM	201
Introduction	201
Educational goals in the Australian National Curriculum	203
Structure and elements of the Australian National Curriculum	204
<i>Learning areas</i>	205
<i>Years of schooling</i>	207
<i>General capabilities</i>	207
<i>Cross-curriculum priorities</i>	210
<i>Diverse learners</i>	215
<i>Assessment against achievement standards</i>	216
Definition of Quality in the Australian National Curriculum	218
Conclusion	219
CHAPTER 10: SKILLS IN THE AUSTRALIAN NATIONAL CURRICULUM	220
Introduction	220
Skills in the Australian National Curriculum	221
Skills in the Australian National Curriculum relevant to sustainability	227
Summary of skills in the Australian National Curriculum relevant to sustainability	238
Conclusion	239
CHAPTER 11: KNOWLEDGE IN THE AUSTRALIAN NATIONAL CURRICULUM	240
Introduction	240

Knowledge in the Australian National Curriculum relevant to sustainability	241
<i>Global Perspectives in the Australian National Curriculum</i>	241
<i>Environmental Issues in the Australian National Curriculum</i>	243
<i>Environmental Sustainability in the National Science curriculum</i>	243
<i>Environmental Sustainability in the National History curriculum</i>	247
<i>Environmental Sustainability in the National English curriculum</i>	249
<i>Environmental Sustainability in the National Mathematics curriculum</i>	250
Summary of relevant knowledge in the Australian National Curriculum	252
Conclusion	258
CHAPTER 12: VALUES IN THE AUSTRALIAN NATIONAL CURRICULUM	260
Introduction	260
Values in the Australian National Curriculum	261
References to specific values in the Australian National Curriculum	264
<i>Global values in the curriculum</i>	268
<i>Values relating specifically to sustainability</i>	271
Conclusion	273
CHAPTER 13: EVALUATING THE AUSTRALIAN NATIONAL CURRICULUM AGAINST THE CRITERIA FOR ESD	276
Introduction	276
Multidimensionality in the Australian National Curriculum	276
Curriculum integration and the Australian National Curriculum	278
Developing the whole learner in the Australian National Curriculum	281
Whole school community approach in the Australian National Curriculum	284
Evaluative criteria for ESD in the Australian National Curriculum	285
Conclusion	287
CHAPTER 14: CONCLUSION	288
Summary of findings regarding the Australian National Curriculum	288
Potential for improvements to the Australian National Curriculum	290

Implications for teacher education	292
Implications for further research	297
REFERENCES	301

LIST OF APPENDIXES IN VOLUME 2

	Volume 2 Page No.
Appendix 1	1
Values expressed in the International Implementation Scheme (IIS) for the UN Decade of Education for Sustainable Development compared with global values	
Appendix 2	2
Characteristics of Education for Sustainable Development (ESD) as described in the International Implementation Scheme (IIS) for the UN Decade of Education for Sustainable Development	
Appendix 3	3
Scope of the four dimensions of Education for Sustainable Development (ESD) as described in the Unesco International Implementation Scheme (IIS) for ESD	
Appendix 4	4
Description of Haidt and Joseph's Moral classification system	
Appendix 5	5
Summary examples of Values in Education across time and cultures	
Appendix 6	13
Characteristics of the Unesco four pillars of learning	
Appendix 7	14
The Seven Tensions of the Delors report	
Appendix 8	16
Ten challenges for education in the twenty-first century	

Appendix 9	19
Progression of values expressed in respective Australian National Goals for Schooling	
Appendix 10	20
Values fostered by Australian National, State and Territory Education Authorities	
Appendix 11	22
Guiding principles and key elements for good practice in values education	
Appendix 12	24
Quality features in key relevant Australian values-based education documents compared to characteristics of ESD	
Appendix 13	26
Australian Sustainable Schools Initiative (AuSSI) Scope of Learning	
Appendix 14	27
Benefits for students and communities of schools participating in the Australian Sustainable Schools Initiative (AuSSI)	
Appendix 15	28
Key features of a whole school approach to Education for Sustainability (EfS) in AuSSI schools	
Appendix 16	29
Collation of global values from 22 ESD-related international documents	
Appendix 17	33
International documents from which global values are collated	
Appendix 18	34
Global value sets appearing most frequently in 22 international documents related to sustainable development	

Appendix 19	35
Application of global values to an adaptation of Haidt’s moral classification system	
Appendix 20	36
Descriptive explanations of global values	
Appendix 21	40
Global values mapped against Maslow’s Hierarchy of Needs	
Appendix 22	41
Comparative table of values in the Axial Age by era and civilisation	
Appendix 23	42
The Golden Rule expressed across World Faiths	
Appendix 24	44
Comparison between Australian and global values and the values in the National Framework for Values Education in Australian Schools (NFVE)	
Appendix 25	45
Comparison of quality education features from international documents relevant to values-based ESD	
Appendix 26	47
Moral development perspectives relevant to values education for ESD	
Appendix 27	48
Whole person competencies for Education for Sustainable Development (ESD)	
Appendix 28	49
Issues to inform ESD curriculum content from the Unesco International Implementation Scheme for the UN Decade for ESD	

Appendix 29	50
Core issues for Education for Sustainable Development in the Asia Pacific Region	
Appendix 30	51
Sustainability issues in the 2005 National Environmental Education Statement for Australian Schools	
Appendix 31	52
Sustainability content suggested in the 2010 Sustainability Curriculum Framework	
Appendix 32	53
Combined list of sustainability issues to inform ESD curriculum content	
Appendix 33	55
ESD skills in the International Implementation Scheme for the UN Decade of Education for Sustainable Development	
Appendix 34	56
Skills for Education for Sustainable Development (ESD) identified by McKeown	
Appendix 35	57
Combined list of sustainability skills to inform ESD curriculum development categorised according to the Unesco four pillars of learning	
Appendix 36	59
A paradigm shift for education in moving towards ESD in the Asia Pacific region	
Appendix 37	60
Characteristics appropriate for ESD in the 2005 National Environmental Education Statement for Australian Schools	
Appendix 38	61
Characteristics appropriate for ESD in Australia's 2009 National Action Plan for Education for Sustainability	

Appendix 39	62
Transitions needed to move from traditional to contemporary quality education approaches appropriate for ESD	
Appendix 40	63
Evaluative criteria for values-based Education for Sustainable Development	
Appendix 41	64
Examples of references to diverse cultures in the Australian National Curriculum	
Appendix 42	67
Examples of references to ATSI histories and cultures in the Australian National Curriculum	
Appendix 43	70
Examples of references to Asia and Australia’s engagement with Asia in the Australian National Curriculum	
Appendix 44	72
References in the Australian National Curriculum to the environmental practices of ATSI peoples, and their connection to, and interdependence with the land	
Appendix 45	73
References in the Australian National Curriculum to the sustainability of practices used by other cultures.	
Appendix 46	74
Definitions of ‘Reasoning’ and ‘Problem Solving’ across year levels in the Australian National Mathematics Curriculum	
Appendix 47	76
Frequency of skills in the Australian National Curriculum by groups of skills	

Appendix 48	77
Full collation of skills in the Australian National Curriculum	
Appendix 49	84
References to the ‘recognition’ of Indigenous peoples, and diverse cultures and languages in the Australian National Curriculum	
Appendix 50	85
Examples of the skill of ‘problem solving’ in the Australian National Curriculum	
Appendix 51	89
Examples of the use of the term ‘thinking’ in the Australian National Curriculum	
Appendix 52	90
References to the use of Information and Communication Technology in the Australian National Curriculum	
Appendix 53	98
Examples of the skill of ‘decision making’ in the Australian National Curriculum	
Appendix 54	99
References to a ‘futures perspective’ and hypothetical phrasing in the Australian National Curriculum	
Appendix 55	100
References to conducting experiments and making or using models in the Australian National Curriculum	
Appendix 56	103
References to ‘interconnected understandings’ in the Australian National Curriculum	
Appendix 57	107
References to ‘systems’ in the Australian National Curriculum	

Appendix 58	109
References to ‘transformation’ and ‘change’ in the Australian National Curriculum	
Appendix 59	111
Categorisation of skills in the Australian National Curriculum according to the Unesco four pillars of learning.	
Appendix 60	112
References to global issues in the Australian National Curriculum	
Appendix 61	113
References to environmental issues in the Australian National Curriculum	
Appendix 62	117
Examples from the Science learning area in the Australian National Curriculum emphasising the importance of Science for environmental sustainability	
Appendix 63	118
Comparison between ESD issues to inform curriculum content listed in Appendix 32 and ESD content in the Australian National Curriculum	
Appendix 64	121
References to socio-economic and socio-political issues in the Australian National Curriculum	
Appendix 65	125
Values appearing most frequently in the Australian National Curriculum compared to those in the Melbourne Declaration, the NFVE and global values	
Appendix 66	127
Full collation of values in the Australian National Curriculum	
Appendix 67	130
References to ‘difference’ in the Australian National Curriculum	

Appendix 68	139
Tally of global values in the Australian National Curriculum	
Appendix 69	140
Instances of ‘interdependence’ and ‘interconnectedness’ in the Australian National Curriculum	
Appendix 70	141
Summary of references to the terms ‘values’, ‘morals’, ‘ethics’ (or ethical), ‘attitudes’, ‘principles’ and ‘beliefs’ in the Australian National Curriculum	
Appendix 71	142
Full collation of instances of the terms ‘values’, ‘morals’, ‘ethics’ (or ethical), ‘attitudes’ ‘beliefs’ and ‘principles’ in the Australian National Curriculum	
Appendix 72	146
Frequency of references relating to each ESD dimension in the Australian National Curriculum	
Appendix 73	147
References to cross-disciplinary cooperation in the Science curriculum	
Appendix 74	148
Opportunities to develop emotional intelligence in the Australian National Curriculum	
Appendix 75	150
References to aesthetic appreciation in the English learning area in the Australian National Curriculum	
Appendix 76	151
Opportunities for civic contribution or taking action towards sustainability in the Australian National Curriculum	

Appendix 77	152
References to religion or spirituality in the Australian National Curriculum	
Appendix 78	153
References to relationships in the Australian National Curriculum	
Appendix 79	154
Summary evaluation of the Australian National Curriculum against the evaluative criteria for values-based ESD in Appendix 40	

LIST OF TABLES AND FIGURES

TABLES

	Page
Chapter 6	
Table 6.1 Global value sets found in international documents	124
Chapter 9	
Table 9.1 Intercultural understanding in the Australian National Curriculum	212
Chapter 10	
Table 10.1 Interconnected understandings in the Australian National Curriculum	233

FIGURE

Chapter 6	
Figure 6.1 Inglehart-Welzel Cultural Map of the World (Inglehart, 2006)	130

ABSTRACT

History shows that society looks to education to develop the values, knowledge and skills needed to address contemporary challenges and to create the kind of society and lifestyles that are appropriate to the time, place and context. This is particularly so in times of crisis and rapid change such as those encountered today. The inter-related issues of climate change, environmental degradation, globalisation and the global financial crisis (GFC), population explosion, growing intercultural and inter-religious conflict, and increasing social concerns and inequities, confront education with many complex challenges.

This policy-oriented study examines the nature of these global challenges and ways of addressing them through values-based Education for Sustainable Development (ESD), with specific reference to key international documents and reports. It identifies the most commonly expressed values, knowledge and skills involved in Education for Sustainable Development (ESD) in a selection of United Nations (UN) documents and international agreements relevant to key socio-cultural, socio-economic, and environmental perspectives of sustainable development. These are collated, analysed and presented as a guide for schooling to address, while complementing local cultural and national values. The global values are compared to Australian values, with those in the National Framework for Values Education in Australian schools (NFVE), and in the Australian National Curriculum for schooling.

From an extended examination of international and Australian documents, and the work of scholars in the field, this study reviews the educational thinking that led to current concepts of Education for Sustainable Development (ESD), with particular emphasis on values. It is argued that schools operate in three ways, by what they teach, by how they teach and by the kind of place the school is, which are examined in this study in terms of quality and effectiveness for values-based teaching and learning for a sustainable future.

An investigation of the Australian National Curriculum for Schooling is undertaken as a case study to test: (a) the global values for ESD identified from UN documents; (b) the knowledge and skills for ESD gleaned from relevant international and Australian documents; and (c) the quality characteristics of ESD identified in this study, to form

evaluative criteria for implementing values-based ESD. The analysis examines the extent to which the Australian National Curriculum is designed to service the goal of sustainable development, with recommended modifications and adjustments. The Australian National Curriculum is also tested against a philosophical and values-based framework for its coherence, consistency and strength, and particularly, for its usefulness in creating a peaceful, just and sustainable society.

It is argued that the issues addressed by Education for Sustainable Development are too important to be under-represented in the Australian National Curriculum, and merit serious and thorough consideration in the context of a rapidly changing world. Although this study discusses the nature of school-based Education for Sustainable Development, the underpinning principles and evaluative criteria for ESD may be extended to all levels of education.

The Appendixes that accompany this study are contained in a separate volume for easy reference and are designed to be referred to alongside the text in this volume.

DECLARATION

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968.

I also give permission for the digital version of my thesis to be made available on the web, through the University's digital research repository, the Library catalogue and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

Signature:

Date:

February 2012

DEDICATION

To the educators who work tirelessly for the development of the children in their classes.

To the learners who will become the citizens, workers and leaders of the future.

To my son, Simon and his children, and their children.

May they contribute to, and benefit from, the creation of a more peaceful, just and sustainable world.

ACKNOWLEDGEMENTS

It would not have been possible to undertake the research and writing associated with this study without the understanding, patience and encouragement of many people.

In particular, I offer my sincere appreciation to my academic supervisors, Dr Margaret Secombe and Professor John Keeves, for their patience and invaluable support, expert guidance, insight, and generosity in sharing their knowledge and experience with me over many years.

I am especially grateful for the encouragement and understanding provided by my family, friends and work colleagues over an extended period, since I was often unavailable to share time with them.

I also extend my thanks to the staff of the University of Adelaide, School of Education and the Adelaide Graduate Centre for their helpful advice at all times.

ACRONYMS

AARE	Australian Association for Research in Education
AAS	Australian Academy of Science
ABS	Australian Bureau of Statistics
ACARA	Australian Curriculum Assessment and Reporting Authority
ACCU	Asia Pacific Cultural Centre for Unesco
ACER	Australian Council for Educational Research
AEC	Australian Education Council
AGPS	Australian Government Publishing Service
AI	Amnesty International
APCEIU	Asia Pacific Centre for Education for International Understanding
APNIEVE	Asia Pacific Network for International Education and Values Education
ARIES	Australian Research Institute for Environment and Sustainability
ASEP	Australian Science Education Project
ATSI	Australian Aboriginal and Torres Strait Islander peoples
AuSSI	Australian Sustainable Schools Initiative
BBC	British Broadcasting Commission
BCE	Before the Common, Christian or Current Era
CAP	Canadian Association of Principals
CCWA	Curriculum Council of Western Australia
CDC	Curriculum Development Centre (Australia)
CEL	Center for Ecoliteracy (USA)
CIRET	International Centre for Transdisciplinary Studies and Research
CPWR	Council of the Parliament of the World's Religions
DECS	South Australian Department of Education and Children's Services
DEET	Northern Territory Department of Employment, Education and Training
DEEWR	Department of Education, Employment and Workplace Relations
DEH	Department of Environment and Heritage (Australian)
DESD	United Nations Decade of Education for Sustainable Development (2005-2014)
DEST	Department of Education Science and Training
DEWHA	Department of the Environment, Water, Heritage and the Arts
DIC	Department of Immigration and Citizenship

DNA	Deoxyribonucleic Acid (i.e. genetic code for all life forms)
ECI	The Earth Charter Initiative
EE	Environmental Education
EFA	Education For All
EfS	Education for Sustainability
EIU	Education for International Understanding
EPD	Environment, Population and Information for Human Development Project
ESD	Education for Sustainable Development
ESF	Education for a Sustainable Future
GFC	Global Financial Crisis
HDI	Human Development Index
HDR	Human Development Report
HENT	Holistic Education Network of Tasmania
HIV/AIDS	Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome
HPI	Human Poverty Index
HRE	Human Rights Education
IBE	International Bureau of Education
ICE	International Conference on Education
ICES	International Conference on Environment and Society
ICT	Information and Communication Technology
IEEP	International Environmental Education Programme
IIS	International Implementation Scheme for the United Nations Decade of Education for Sustainable Development (2005-2014)
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature and Natural Resources
MCEETYA	Ministerial Council for Education Employment Training and Youth Affairs
MCEECDYA	Ministerial Council, Education Early Childhood Development and Youth Affairs
MDGs	United Nations Millennium Development Goals
NCB	National Curriculum Board
NFVE	National Framework for Values Education in Australian Schools
NGO	Non-Government Organisation
OECD	Organisation for Economic Cooperation and Development
OHCHR	Office of the UN High Commissioner for Human Rights

PDF	Portable Document Format
SACSA	South Australian Curriculum Standards and Accountability Framework
SD	Sustainable Development
SEMP	School Environment Management Plan
SOSE	Studies of Society and Environment (Learning area in Australian schooling)
TELS	Tasmanian Essential Learnings
UDHR	Universal Declaration of Human Rights
UK	United Kingdom
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCHE	United Nations Conference on the Human Environment
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
Unesco	United Nations Educational, Scientific and Cultural Organization
UNEVOC	International Centre for Technical and Vocational Education and Training
UNHCHR	United Nations High Commission for Human Rights
UNLD	United Nations Literacy Decade
USA	United States of America
VCAA	Victorian Curriculum and Assessment Authority
VEGPSP	Values Education Good Practice Schools Project
WCCD	World Commission on Culture and Development
WCED	World Commission on Environment and Development
WCEFA	World Conference on Education for All
WPHRE	World Programme for Human Rights Education
WSSD	World Summit on Sustainable Development
WVS	World Values Survey
WWF	World Wildlife Fund

PREFACE

I have chosen to preface this work with an explanation of the personal relevance of the subject matter, and a description of the global context, circumstances and timely opportunities that shaped the specific choice of values-based Education for Sustainable Development (ESD) as the topic of study.

The emergence of Education for Sustainable Development (ESD) has a long history of over 40 years, as it evolved from Environmental Education (EE). The integration of socio-cultural and socio-economic factors with environmental ones coincided with the development of my own integrated understandings of the interdependent and systemic nature of how societies function in relationship with each other and with their environments. The progressive evolution of ESD is evident in the reports and proceedings of international conferences held over the past 40 years, as the international community progressively acknowledged the inextricable links between social, cultural and economic aspects of development and environmental sustainability. The growth of my personal understanding is evident in the life and work experiences that have shaped my values and thinking during the same period.

The family circumstances into which I was born and the schooling to which I was exposed, led to a lifelong investigative journey, and a desire to contribute to society through the medium of education. My family migrated to Australia in 1950 as refugees, having been dispossessed of their Istrian home in northern Italy, which was conceded to Yugoslavia after World War II. Since I was born in Adelaide shortly after my family left the refugee camp at Bonegilla in Victoria, I grew up with stories of two World Wars, poverty, hunger, loss and human indignity, while witnessing the family's struggle with a foreign language and culture. By the age of eight, being bilingual and bicultural, I was also fascinated by Indigenous cultures, had a love of animals and nature, and a keen desire to understand the diversity of life. At school I learnt about the United Nations (UN) in Social Studies from the Sisters of Mercy who worked on African 'missions', and who taught me about 'man's inhumanity to man' and the importance of contributing to society, by fundraising for Oxfam, World Vision and later, an international anti-landmine campaign, championed by the school Principal, Patricia Pak Poy. I remember clearly the image of the UN flags in my Grade 5 Social Studies textbook, representing a naïve child's hope that countries could work alongside each other for peace and human dignity, so important

to my family. By the age of ten years, I had already been exposed, both at home and at school, to some of the social and cultural aspects of sustainable development discussed in this study, that were to dominate my life for decades to come.

My schooling had a profound influence on my values and interests that was to last a lifetime, against a family backdrop of daily expressions of gratitude for this '*paradiso*' that had delivered the family from desperation to peace, well-being and opportunity. From these experiences, I learned the power of family and schooling on the shaping of values towards responsibility, contribution, respect and appreciation, and in particular the valuing of peace, human rights and dignity. It was the 1960s and environmental education had not yet been introduced in schools, but by 1971 when I began the study of languages at Flinders University in South Australia, spurred by a passion for cultural and linguistic maintenance, I was exposed to some of the classics of the environmental movement during exploratory visits to the campus bookshop. These opened the door to a new way of seeing the world, and a nascent interest in environmentalism.

From my first visit to Flinders University, I was puzzled by the spatial chasm that existed between the buildings allocated to Humanities and Social Sciences, and those across the lake on the other side of the campus dedicated to the Natural Sciences. I soon discovered that this divide was not merely a physical one, but one that pervaded all aspects of academic and eventually working life, policy development and Government. I became aware of a similar divide some years later when asked on my entry to politics, whether my political focus was social or economic, I replied that I did not perceive them as being separate. The distinctions between the natural and social sciences, and between social and economic issues, did not make sense to me then, nor do they now. Since my view did not appear to be shared by my contemporaries, it was with delight that I later discovered the multi-dimensional international organisation Unesco, which brings together uniquely Education, the Sciences, Culture and Communications. Equally inspiring was the later discovery of an affiliated network called Unesco-APNIEVE, which fostered cross-disciplinary values-based approaches to education for peace, human rights, democracy and sustainable development, that are directly relevant to this study.

Despite my values-based upbringing, I had not been exposed to a range of diverse perspectives nor had I had the opportunity to develop critical thinking or problem solving skills that would have prepared me for university and working life. I had instead absorbed everything that had

been presented to me as if it were truth within a relatively narrow worldview, without developing the critical literacy for inquiring, comparing, questioning and formulating my own informed views, which I now understand are key aspects of Education for Sustainable Development (ESD). The university environment in the early 1970s confronted this 17 year-old school leaver with an array of confusing messages and radical anti-establishment slogans that conflicted with her sheltered and conservative Catholic migrant background. These new ideas challenged a wide range of social, political, environmental and economic issues including nuclear proliferation, the Vietnam War, uranium mining, and gender roles, to name just a few. I found out that anti-war protesters were not ‘bad’ people to stay away from; an understandable message from a family who had previously feared the retaliation of a fascist regime; but that the protesters were expressing their democratic right to rail against military massacres and to call for peace. This today finds a familiar echo among environmentalists, peace activists and anti-globalisation demonstrators, whose forms of protest may differ, nonetheless the search for truth, justice and peace remain. The clear links between the past and present beg the question why the study of History fails to include learning lessons from past histories, to be applied in contemporary contexts.

In the 1970s, I participated in university and festival theatrical productions and musicals that expressed socio-political and environmental themes, and like many university students of the time, eventually developed a critical consciousness that was further to shape my values, friendships, vocational choices, and political beliefs. Yet, my secondary and tertiary education had not prepared me for the reality of life beyond institutional walls. To my chagrin, I discovered with my first casual job during a university vacation, that I had not acquired any practical work skills such as operating a simple adding machine, nor had I developed adequate socio-emotional skills to deal effectively with personal and work relationships and conflicts. This brought home the importance of life skills and the development of the whole learner, including functional skills and practical applications in education beyond theoretical and factual learning, discussed in Chapters 10 to 13 in relation to the Australian National Curriculum.

On completion of my studies, I joined a small team of teachers in 1976 to pilot bilingual and multicultural education for the first time in South Australian schools in order to: (a) raise cultural awareness among Australian children; (b) maintain migrant languages and cultures, and (c) foster cultural and linguistic diversity. I was unaware how ground breaking that work would be, while at the same time the children of boat people from Vietnam were welcomed to our

classrooms. These experiences introduced me to the importance of strengthening and maintaining cultural and linguistic heritage and identity, for dignity, self-esteem and educational achievement, and the role of respect and intercultural understanding for social harmony, which I now know are integral to ESD for a sustainable society. I also witnessed first-hand an enlightened approach to the compassionate settlement of Vietnamese refugees, based on the recommendations of the 1978 Galbally Report, in stark contrast with both my family's experience in Bonegilla in 1950, and contemporary practices for the detention of asylum seekers. I eventually left the field of multicultural education, returning 20 years later to contribute to the development of the multicultural cross-curriculum perspective in the South Australian Curriculum Standards and Accountability Framework (SACSA); an experience that informs my analysis of the cross-curriculum approach to sustainability in the Australian National Curriculum in this current study.

During the intervening 20-year period, I worked with traditional Indigenous peoples on the Pitjantjatjara Lands, and with fringe and urban Indigenous communities across South Australia in a range of educational roles. These experiences exposed me to new perspectives, a diverse cosmology and relationship with the land, and reflections on power, dominance and the impacts of colonisation and dispossession that were far more profound than my family had experienced. When consulting Indigenous communities about their educational needs in efforts to support self-empowerment and self-determination, I was shocked by living standards that could equate with those among the poorest developing nations, and by the cultural insensitivities of ill-prepared public officials. This led me subsequently to assist the Australian Public Service Commission in developing cross-cultural awareness programs for public servants working with migrants and Indigenous peoples.

This period of my life was truly revealing, for which neither my schooling nor university study had prepared me, challenging yet again my worldview and underpinning assumptions. In addition to learning to value Indigenous knowledge and different ways of knowing, understanding and perceiving the world, I gained unique insights into the integrated ways in which communities function, involving a complex, multilayered and interconnected web of socio-cultural, economic, and political reasons for why they might not function well. Although my role was an educational one, I could not separate the design of Indigenous community education programs from the deeply disturbing socio-cultural, socio-economic, environmental and health issues that beset community members. This experience helped me gradually to

assemble the disconnected pieces of a puzzle in my mind, to understand the multidimensional and interdependent functioning of human societies, later understood as sustainable development, when my education had prepared me only to understand separate elements. This is discussed again in later chapters with reference to the integration of knowledge in the Australian National Curriculum.

After having extended my understanding of immediate family experiences to include those of other migrant and Indigenous communities within Australia, I then extended my knowledge further afield to include international concerns. My global awareness expanded when working for Australia's Agency for International Development (AusAID), and subsequently teaching at a British International school in the Middle East, and later as a member of the Australian National Commission for Unesco, and founding President of Unesco-APNIEVE (Asia Pacific Network of International Education and Values Education) in Australia. The AusAID and Unesco experiences, further developed my understanding of the interconnected nature of human societies and cultures, not only within societies and countries, but also between them at the global level.

From the mid-1990s I became involved in human rights issues, firstly advocating for an Australian Bill of Rights during the Constitutional debates leading up to the failed referendum for an Australian Republic, and later as a member of the National Human Rights Education Committee, and later still when working in Multicultural Affairs in relation to the treatment of refugees in detention centres. During this time also, I became active in facilitating interfaith dialogue and understanding among Christian, Muslim and Jewish communities in South Australia, following the burning of mosques in reaction to the events of September 11 in 2001. These experiences extended my sphere of interest beyond cultural and linguistic sustainability and intercultural awareness, to interfaith understanding for societal peace, and broader human rights, equity and social justice aspects of sustainability. This period also saw the honing of my experience in educational and social policy development in Government advisory roles and in developing government-wide policies of access, equity, and social inclusion further deepening my understanding of social justice issues.

A decade-long involvement with Unesco introduced me to the world of international diplomacy, and the processes for developing international agreements, norms and standards. I spent hundreds of hours listening to the speeches of country representatives at Unesco biennial General Conferences and at over 50 international education meetings and conferences convened

by Unesco in various parts of the world, during which the texts of agreements were debated and agreed upon. I was involved in contributing to the Universal Declaration on Cultural Diversity and the development of the World Programme for Human Rights Education in 2004. During this time, I was exposed to a wide array of international and UN standard-setting documents, and began inevitably to compare the values and underpinning principles expressed in these documents with Australian educational policy and curriculum documents, with which I was familiar, noting and reflecting upon the similarities and differences, sometimes speaking and writing on the subject. From this experience, I drew inspiration for extracting the values, knowledge, skills and processes for Education for Sustainable Development from key international documents, eventually comparing them with their application in the Australian National Curriculum discussed in this study.

A defining personal moment, linking the past with the present, occurred the first time I entered the plenary hall at the start of the 31st session of the Unesco General Conference in 2001. The intense emotion generated by the sight of the national flags of Unesco member states lined up beside each other, recalled the spirit of the ten year-old whose childhood aspirations for a peaceful, just and harmonious world remained strong in the heart of the adult, despite the passage of time and some disillusionment. The child's vision had initiated a journey from an initial exploration of languages and cultures, to understanding the complex multidimensional interdependencies of society, culture, and environment at local, national and global levels, to inform a comprehensive approach to ESD.

As if to complete the journey of integrated understanding, my current role enables me to contribute to the implementation of the 2009 Council of Australian Governments (COAG) Green Skills Agreement for integrating skills for sustainability in tertiary education and training in Australia, thereby applying in practice a long personal interest in the environment, and satisfying my need to take positive action for mitigating climate change.

It was over 20 years ago immediately following the first Gulf War, that I experienced an intense desire to contribute positively to society through education, to address the serious socio-cultural, socio-economic, and environmental issues of the time, in ways that might not yet have been implemented. At the time, there was conflict in the Middle East, drought, civil war and famine in Somalia, increasing global poverty, an economic recession, emerging racism with the Mabo land rights decision and rising anti-immigration sentiments in Australia, and concern about sea and air

pollution caused by burning oil fields in the Persian Gulf. This scenario applies equally today, only greater concerns may be added, such as climate change, increasing natural disasters, the re-emergence and spread of tropical diseases, increasing rates of crime, terrorism, corruption, depression, substance abuse, suicide, and a general erosion of community values, notwithstanding the many scientific and technological advances that also occurred during this period to improve living standards for some. In the meantime, war continues in the Middle East.

Following many years of personal reading and reflection in the 1990s and beyond, I chose to investigate values in education, since the acquisition of knowledge and skills, although essential, had alone proved insufficient for bringing about positive societal change to address these concerns. Further inquiry discussed in this study, revealed that values can provide the motivation and impetus to take action for bringing about positive change; the missing link in education. This accorded with my personal experience that had shown me the importance of values especially if accompanied by critical thinking to avoid blind adherence to values imposed by others, and by appropriate skill and knowledge development for taking appropriate practical and informed action. The significant questions to address in relation to the topic were: (a) which values to teach; (b) to what end; and (c) how best to teach them, addressed in this study.

The period of my doctoral candidature fortuitously coincided with three separate events, which shaped the specific topic chosen for investigation, namely: (a) the establishment of the first National Framework for Values Education in Australia in 2004; (b) the 2002 UN proclamation of the Decade of Education for Sustainable Development (ESD) for the period 2005–2014; and (c) the Australian Government decision to introduce the first National Curriculum for schooling in 2009, with sustainability as a cross-curriculum priority, at a time when the issue of Climate Change was looming large on the political agenda.

These three factors not only meshed perfectly with my personal aspirations for a more peaceful, just and sustainable world, they also gave the study both purpose and topical relevance. The scene was set for me to explore the values, knowledge and skills that could form the basis of Education for Sustainable Development (ESD), to enable the transformations needed for peace, human rights, democracy and sustainable development. The developing Australian National Curriculum provided the ideal vehicle against which to test the findings of my investigation, and to satisfy a need for making a personally meaningful contribution to education not only in Australia, but across the Asia-Pacific region and the wider World.