The influence of literature on the pro-environmental attitudes of environmental educators.

Margaret Hamilton FREESTONE
BA (Comm), M Env Mgt & Rest,
MPET, P G Cert Enviro Ed.

The thesis is presented for the degree of
Doctor of Philosophy
Of the University of Newcastle

May 2013
The thesis 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 the final version of my thesis being made available worldwide when deposited in the University’s Digital Repository, subject to the provisions of the Copyright Act 1968.
I would like to thank and acknowledge the assistance and support given to me by my supervisors, Dr Mitch O’Toole, Associate Professor Doug Absalom and Dr Maria Freij in completing this work.

I would also like thank my husband Chris and my family for their ongoing understanding and help in listening to ideas, asking difficult questions and reading and rereading this work. Their unfailing love and belief in my ability to negotiate this study has encouraged me to find answers to the questions.

Hey Mum, Dad, I did it!
Contents

Contents ........................................................................................................................................ 1

Abstract ...................................................................................................................................... 9

Chapter 1 Introduction ........................................................................................................ 10

1.1 Background to the research problem ................................................................. 10
1.2 Definitions ................................................................................................................. 15
1.3 The problem being investigated and the research questions ....................... 15
1.4 Format of the thesis ............................................................................................... 20

Chapter 2 Literature Review ....................................................................................... 23

Introduction ......................................................................................................................... 23
2.1 Pro-environmental influences ............................................................................ 24
2.2 Emotions influence thinking ............................................................................. 29
2.3 Change in belief ...................................................................................................... 30
2.4 Calls to encourage pro-environmentalism .......................................................... 32
2.5 Storytelling .............................................................................................................. 34
2.6 Previous research into Favourite books ............................................................... 35
2.7 Fiction / Narrative can change beliefs ................................................................. 36
2.8 Transportation ........................................................................................................ 38
2.9 Genre ....................................................................................................................... 41
2.10 Ages of influence ................................................................................................. 43
2.11 Memory .................................................................................................................. 46
2.12 Memory and the learning spectrum ..................................................................... 49
2.13 Mental processing of information ....................................................................... 52
2.14 Elaboration Likelihood Method. (ELM) .............................................................. 53
2.15 ELM, or Transportation for information retention ............................................. 55
2.16 Educational Entertainment, Edutainment or EE .............................................. 56
2.17 Advertising ........................................................................................................... 58
2.18 How information can change attitudes, values and actions ......................... 61
Chapter 3 Methodology

Introduction........................................................................................................... 65
3.1 Methodology ................................................................................................... 66
3.2 The advantages of qualitative research practices in this research situation ....... 69
3.3 The advantages and style of interview ............................................................. 71
3.4 Method ............................................................................................................ 73
  3.4.a The participants ........................................................................................ 73
  3.4.b The actual study ........................................................................................ 74
  3.4.c Interviews .................................................................................................. 75
  3.4.d Naming of participants ............................................................................. 75
  3.4.e Transcripts ................................................................................................ 76
  3.4.e.i Validation: Member checking and multiple sources of evidence .......... 76
  3.4.e. Validation: Triangulation and pattern matching ...................................... 77
  3.4.f Coding and the emergence of categories .................................................. 77
    3.4.f.i Childhood reading .............................................................................. 80
    3.4.f.ii Current reading .................................................................................. 80
    3.4.f.iii Participant training .......................................................................... 81
3.5 Limitations ...................................................................................................... 84
3.6 Conclusion ...................................................................................................... 85

Chapter 4 Results of the participants reading preferences ........................................ 87

Introduction......................................................................................................... 87
4.1 Participants ....................................................................................................... 87
  4.1.a Teacher’s backgrounds .......................................................................... 88
  4.1.b Identified pro-environmental influences on the participants ................. 89
4.2 Child reading to adult reading comparisons ........................................................... 93
4.2.a First coding of general book types .................................................................... 93
4.2.b Gender differences in childhood reading ......................................................... 99
4.2.c Gender differences in adult reading ............................................................... 100
4.2.d Generational differences in reading preferences ............................................ 100
4.2.e Overall Most popular reading ........................................................................ 102
4.2.f Personal reading habits ................................................................................... 103
4.3 Books by Type, Science and Humanities.............................................................. 103
4.3.a Most popular books overall ............................................................................ 106
4.3.b Individual reading .......................................................................................... 108
4.3.c Reading preferences when older .................................................................... 109
4.4 Classifying children’s reading books by suggested reading age ...................... 110
4.5 Library comparisons of Adult Reading ............................................................... 112
4.6 Stories in the EECs ............................................................................................ 116
4.7 Reading to future generations .......................................................................... 119
4.8 Conclusions ........................................................................................................... 120

Chapter 5 Discussion of environmental educator’s background influences ........ 122

Introduction ................................................................................................................. 122
5. 1 Teacher’s backgrounds ....................................................................................... 124
5.1.a Experience in Natural areas ............................................................................ 127
5.1.b Principles or Religion ..................................................................................... 129
5.1.c Education ........................................................................................................ 131
5.1.d Books and authors ......................................................................................... 133
5.1.e Family ............................................................................................................. 134
5.1.f Negative experiences ...................................................................................... 137
6.3.i Encyclopaedias ........................................................................................................ 192
6.3.j Specific science influence .................................................................................. 193
6.3.k Social justice reading ......................................................................................... 193
6.4 Conclusion ............................................................................................................. 194

Chapter 7 Discussion of Comparison Results .............................................................. 199
Introduction .................................................................................................................. 200
7.1 Publishers’ recommended ages ............................................................................. 200
7.2 Discussion of Section 4.5 Library comparisons of Adult reading ......................... 203
7.3 Discussion Results Section 4.6 Stories at work ..................................................... 205
  7.3.a The Environmental Education Centres (EECs) .............................................. 205
  7.3.b Using Published stories in the EECs ............................................................... 210
  7.3.c Stories in the EECs ......................................................................................... 216
7.4 Discussion of results Section 4.7 Reading to future generations ......................... 221
  7.4.a Popular Stories for future generations............................................................... 222
  7.4.b Childhood stories reread to children ............................................................... 227
7.5 Conclusion ............................................................................................................. 229

Chapter 8 Conclusion to the thesis ............................................................................. 232
8.1 Memory of childhood books .................................................................................. 233
8.2 Any particular type/author/title/genre .................................................................. 235
8.3 Ages of influence .................................................................................................. 237
8.4 Recognition of influence from fiction ................................................................... 241
8.5 Is their childhood reading different? ..................................................................... 245
8.6 Other Discoveries from this study ....................................................................... 245
  8.6.a Potential further studies .................................................................................. 245
  8.6.b Overlapping influences ................................................................................... 248
  8.6.c Two types of EEC teachers .............................................................................. 249
8.7 Implications and recommendations.................................................................250
References.............................................................................................................257

Appendix 1. Interview Questions...........................................................................276
Appendix 2. Consent Information.........................................................................277
Appendix 3. Education for Sustainability and Environmental Education..............280
Appendix 4. Recalled Children’s books.................................................................283
Appendix 5. Participant’s individual reading categories of interest.......................288
Appendix 6. Participants reported reading and EEC type......................................291
Abstract
The purpose of this research is to better understand the potential influences of fiction on environmental educators. Current research into pro-environmentally active people indicates that youthful exposure to the natural environment is the main motivator for pro-environmentalism. As urbanisation continues in our society, this exposure could become less available to many children, thus potentially leading to less pro-environmental behaviour. As many young people consume large amounts of television, books and internet, this presents the opportunity for utilizing these media as an alternative method of encouraging pro-environmental behaviour.

This qualitative study used semi-structured interviews of 31 environmental educators from environmental education centres on the east coast of Australia to address the possible influence of fiction on their pro-environmental attitudes. It revealed that the participants recall predominantly fictional material from childhood, especially from the age ranges of 8 – 11 years, adolescence and early adulthood. There is a high recall of stories by J R R Tolkien, Enid Blyton and J K Rowling, and the highest number of listed books is from the category of Fantasy/SF and stories involving social issues.

This study is different from previous reports into the influence books have had on environmental educators’ pro-environmental values, as it is concentrating on the potential influence of fiction rather than factual or scientific texts.

While stories will never replace authentic childhood experiences in the natural environment for influencing pro-environmental attitude formation, they are a valuable element in teaching strategies as audiences often accept information from stories. Stories are important as they are an aspect of previously recognised pro-environmental influence that can be manipulated by children’s teachers and carers and may reduce the reported increasing occurrences of Eco-phobia and Nature Deficit Disorder.