

Education for Sustainability and Pre-service Teacher Education

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Abstract

Aspects of environment are common topics in Australian primary schools. However Education for Sustainability (EfS), where students actively investigate the underlying causes of unsustainable practices and actively plan for and instigate change, is less well understood and less commonly practised. It cannot be assumed that pre-service teachers have the knowledge, skills and desire to incorporate EfS, as advocated in Australian policies, into their repertoires of practice, or, that they will acquire those skills as they gain teaching experience. Therefore for EfS to become an integral component of the primary school experience, carefully planned rather than ad hoc preparation for EfS is necessary in pre-service teacher education.

This essentially qualitative study describes how a one semester final year pre-service primary teacher unit in EfS was shaped, and reports on how a cohort of pre-service teachers responded, particularly in terms of how well prepared they felt to engage with EfS in future teaching. Although motivation and confidence to engage with EfS varied across the cohort, pre-service teacher education appeared to make a positive contribution to both. In a longitudinal design, five teachers who had participated in the EfS unit became the focus of individual case studies early in their teaching careers. Each case study investigated ways in which the beginning teacher engaged with EfS, linking teaching decisions to pre-service teacher education. The constructivist approach adopted by the tutors was particularly valued by the early career teachers. They appreciated various modes of experiential learning including engagement with the kinds of teaching strategies advocated in EfS and a strong orientation to the curriculum requirements of primary school.

However the extent to which each early career teacher implemented EfS was tempered not only by personal skill and motivation, but also by work situations which did not necessarily support EfS endeavours. Whilst pre-service teacher education has a vital role in the promulgation of EfS in schools, and this study shows that it can be effective in advancing the desires of beginning teachers to do something for the environment, there are broad implications for the institutions that so heavily impact on the capacity of school systems and university systems to act in EfS.

The following refereed publications have resulted from the research described in this dissertation:

- Kennelly, J., & Maxwell, T.W. (2009). *Education for Sustainability: Initial teacher education and the primary curriculum*. Paper presented at the Fourth Annual Postgraduate Research Conference: Bridging the Gap Between Ideas and Doing Research. Faculty of the Professions, University of New England, Armidale NSW, 140-157.
- Kennelly, J., Taylor, N., & Serow, P. (2008). *Engagement, self efficacy and intention to teach Environmental Education in two pre-service primary teachers*. Paper presented at the Third Annual Postgraduate Research Conference: Bridging the Gap Between Ideas and Doing Research. Faculty of the Professions. University of New England. Armidale NSW, 115-122.
- Kennelly, J., Taylor, N., & Maxwell, T.W. (2008) A student teacher's personal pathway to Education for Sustainability. *Australian Journal of Environmental Education*, 24, 23-34.
- Kennelly, J., Taylor, N., & Maxwell, T.W (2008). Addressing the challenge of preparing Australian pre-service primary teachers in Environmental Education. *Journal of Education for Sustainable Development*, 2(2), 141-157.
- Taylor, N., & Kennelly, J. (2007). Getting the point about 'Western' consumption patterns: Some student responses to a cartoon about ecological footprint. *Geographical Education*, 20, 58-62.
- Kennelly, J., & Taylor, N. (2007). Education for Sustainability for the K-6 Curriculum: A unit of work for pre-service primary teachers in NSW. *Australian Journal of Environmental Education*, 23, 3-12.

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List of acronyms

AAEE	Australian Association for Environmental Education
ACARA	Australian Curriculum Reporting and Assessment Authority
ADEH	Australian Department of Environment and Heritage
AGDEWHA	Australian Government Department of Environment, Water, Heritage and the Arts
ARIES	Australian Research Institute in Education for Sustainability
AuSSI	Australian Sustainable Schools Initiative
COG	Connected Outcomes Groups (in teacher programming)
CAPA	Creative and Performing Arts
DECC	Department of Environment and Climate Change
DET	Department of Education and Training
DESD	Decade of Education for Sustainable Development
EE	Environmental Education
EEC	Environmental Education Centre
EEPIC	Environmental Education Programs in Classrooms
EfS	Education for Sustainability
ESD	Education for Sustainable Development
FSC	Field Studies Centre
HSIE	Human Society and its Environment
KLA	Key Learning Area
LfS	Learning for Sustainability
NAPLAN	National Assessment Program Literacy and Numeracy
NSW	New South Wales
QT	Quality Teaching
SEMP	School Environment Management Plan
SMP	School Management Plan
SRC	Student Representative Council
SSP	Sustainable Schools Program
UNEP	United Nations Environment Program
UNESCO	United Nations Educational Scientific and Cultural Organisation
WCED	World Commission on Economic Development