

# Education for Sustainability and Pre-Service Teacher Education

**Julie Kennelly**

## ***Supervisors***

*Associate Professor Neil Taylor*

*Associate Professor Tom Maxwell*

*Dr Pep Serow*

## **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. While 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.

## Key Publications Generated

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

- Kennelly, J., Taylor, N., & Serow, P. (2012). Early career primary teachers and education for sustainability. *International Research in Geographical and Environmental Education*, 21(2), 139–153.
- Kennelly, J., Taylor, N., & Serow, P. (2011). Education for sustainability and the Australian Curriculum. *Australian Journal of Environmental Education*, 27(2), 209–218.
- Kennelly, J., Taylor, N., & Serow, P. (2011). Environmental education and the whole school approach in one Australian primary school. *Economic and Environmental Studies*, 11(2), 125–143.
- Kennelly, J., & Maxwell, T. (2010) *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, University of New England, Australia.
- Kennelly, J., Taylor, N., & Maxwell, T. (2008). Addressing the challenge of preparing Australian pre-service primary teachers in environmental education. *Journal of Education for Sustainable Development*, 2(2), 141–157.
- Kennelly, J., Taylor, N., & Maxwell, T.W. (2008). A student teacher's personal pathway to education for sustainability. *Australian Journal of Environmental Education*, 24, 24–33.
- Kennelly, J., Taylor, N., & Serow, P. (2008, July). Engagement, self-efficacy and intention to teach Environmental Education in two pre-service primary teachers. In T. Hayes & R. Hussein (Eds.), *Proceedings of the Inaugural Postgraduate Research Conference: Bridging the Gap Between Ideas and Doing Research* (pp. 115–122). Armidale, Australia: University of New England.
- 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.

## Access to this thesis

Kennelly, J. (2011). *Education for sustainability and pre-service teacher education* (Unpublished PhD thesis, University of New England, Australia).

## Author Biography

While maintaining close ties with the University of New England, Julie Kennelly now works primarily for the New South Wales (NSW) Department of Education and Communities. In her capacity as facilitator of Education for Sustainability projects in the New England Region of northern NSW, she works with school students, teachers and the NSW network of Environmental Education Centres.