

Australian Journal of Environmental Education

Volume 21 2005

Abstracts

Mrs Blue Gum, Some Puppets and a Remnant Forest: Towards Sustainability Education through Drama Pedagogy

Ellen Appleby..... 1

This paper focuses on a case study of the collaborative development of an environmental education unit involving the use of puppetry and drama. The collaboration was between an experienced classroom teacher beginning to use drama, and a drama/environmental educator and researcher. The critical lens for the analysis was sustainability education, including how this aligns with some recent theory on multiplist and evaluativist meaning-making. It is argued that these modes of meaning-making are necessary pedagogical goals of an eco-connected pedagogy. This case study showed that collaborative planning, implementation and reflection of drama pedagogy was not only a catalyst for more complex and deeper levels of meaning-making for the classroom teacher, but also prompted discussion about other important issues such as the quality of student engagement, classroom power dynamics and authentic assessment. In addition the teacher observed a range of outcomes achieved by her students that align with sustainability education as they became immersed in a dramatic world. In particular she observed that the students, through role-playing and writing about points of view not necessarily their own, developed deeper understandings demonstrating multiplist and evaluativist meaning creation

Critical Contextual Reviews and Development of Interpretive Materials with Teachers in Kenya

Abel Barasa Atiti..... 11

This paper shares findings from a recent study that engaged a group of Kenyan teachers in a review and development of interpretive materials through a participatory action research framework. It focuses on critical contextual reviews of interpretive materials in non-formal organisations and development of similar materials in schools with teachers. Social interactions between teachers and non-formal educators enabled the sharing of ideas, skills and techniques on materials development processes. This provided a basis for developing interpretive materials to support environmental learning within school grounds. A teacher-centred approach to materials development as argued in this paper seeks to respect the needs of schools within their social and historical contexts. It further challenges the conventional top-down approaches in which non-formal educators are creators of materials and teachers are viewed as “technicians” who implement the materials in schools. The paper offers some tentative guidelines on the development of interpretive materials in schools.

**Measuring Environmental Education Program Impacts and Learning in the Field:
Using an Action Research Cycle to Develop a Tool for Use with Young Students**

Roy Ballantyne, Jan Packer & Michele Everett23

Despite the increasing importance of, and interest in, documenting the impact of environmental education programs on students’ learning for sustainability, few tools are currently available to measure young students’ environmental learning across all the dimensions of knowledge, skills, attitudes and behaviours. This paper reports on the development of such a tool, using an iterative action research process with 134 students, aged six to eleven, attending programs at an Environmental Education Centre in Queensland, Australia. The resulting instrument, the Environmental Learning Outcomes Survey (ELOS) incorporates observations of students’ engagement in learning processes as well as measuring learning outcomes, and allows both of these aspects to be linked to particular components of the environmental education program. Test data using the instrument are reported to illustrate its potential usefulness. It is envisaged that the refined instrument (appended) will enable researchers to measure student environmental learning in the field, investigate environmental education program impacts and identify aspects of programs that are most effective in facilitating student learning.

Ignorance, Environmental Education Research and Design Education

Deirdre Barron, Simon Jackson & Lyndon Anderson39

In the relatively new discipline of design education we have the opportunity to frame the way that design education is formulated. The relative lack of theorists in the field of design education studies leaves unquestioned the relevance of conventional practices of design education that are premised on only tangentially relevant Art, Science and Information Technology models. There is a gap in design education development regarding how to mediate ecological concerns with techno-scientific imperatives. Environmental education researchers can influence this new field by challenging existing approaches to design education with particular attention to the ways design either contributes to or hinders the development of a sustainable society. In order to enter this discussion with environmental education researchers we identify three ecological issues faced by designers and design educators, here we pay particular attention to Industrial Design. The question for this paper is, can environmental education researchers offer advice to the design education area that may help us develop ecologically sustainable design-based programs. The newness of ecological concerns in the design research and design education areas means that we have a great deal to learn. If environmental education researchers are able to assist us with our reflections on designing curricula that in turn encourages a more ecologically aware design profession then this would be a worthwhile contribution to design practice in Australia, and indeed the world.

**Educating For Sustainability in the Early Years:
Creating Cultural Change in a Child Care Setting**

Julie Davis47

The early childhood education field has been slow to take up the challenge of sustainability. However, Brisbane’s Campus Kindergarten is one early education centre that is making serious efforts in this regard. In 1997, Campus Kindergarten initiated its *Sustainable Planet Project* involving a variety of curriculum and pedagogical activities that have led to enhanced play spaces, reduced waste, lowered water consumption and improved biodiversity. Such changes are not curriculum “add-ons”. A study of curriculum decision-making processes shows that a culture of sustainability permeates the centre. This has been by a process of slowly evolving changes that have led to a reculturation of many social and environmental practices. This study also shows that very young children, in the presence of passionate and committed teachers, are quite capable of engaging in education for sustainability and in “making a difference”.

The Role of Social Research in Effective Social Change Programs

Lynne McLoughlin & Geoff Young57

Social research is a critical foundation for programs that seek to engage communities in change and in the development of more sustainable societies. Without appropriate research, programs aimed at change are likely to be based on implicit or assumed problem identification and/or inferred community needs and wishes. If we are to achieve community participation in activities that lead to real change, research to find out about those communities is the first step. Over the past ten years the NSW Department of Environment and Conservation (DEC) has developed a considerable body of social research, conducted with both the general community and specific community segments, to underpin its environmental education programs. This paper includes a review of some models for integrating social research into education programs, and examines the extent to which social research has impacted on both the environmental education programs and the organisational culture of the DEC. From this are drawn learnings from the perspective of a major State environmental agency, about the integration of social research into any program or organisation seeking to achieve social change towards sustainability. As well as program specific benefits, the ultimate outcome of this process is to assist in producing an organisational culture which values evidence-based decision-making and develops policies and structures that incorporate a social research dimension into both programs and policy.

**Constructing Apathy: How Environmentalism and Environmental Education May
Be Fostering “Learned Hopelessness” in Children**

Michael Nagel71

For children, environmental issues have become part of their formal and informal educational lives. The merging of the terms environment and education in the 1970s has also witnessed an emerging degree of pessimism through bringing the plight of the environment to the educational arena of children. Much of the discourse surrounding sustainable development is premised on a negative outlook regarding the state of the environment. It is these types of negative messages on which this article focuses. This paper suggests that while attempting to educate future generations about environmental issues, environmentalism may have also assisted in developing a generation of children who have not only become apathetic to environmental issues but also lost in a confusing muddle of “learned hopelessness”.

Families, Homes and Environmental Education

Phillip Payne81

The findings from a study of how Green families construct and practise versions of an environmental ethic and ecopolitic in the home are suggestive of how environmental education in schools might be revised. In this study, the green home proved to be a very different form of environmental education and practice of sustainability. Children’s environmental learning was closely associated with their *doing* of practical things in the home in relation to the everyday environmental problematic. But this embodied, situated and practical *doing as learning* hinged upon their parents’ environmental commitments and the family’s functioning as they were respectively “structured”—materially, symbolically, geographically and historically by the social relations and conditions of the home, availability of resources, school and community networks, and prevailing cultural climate. Hence, this study of household ecologies, or *postmodern oikos*, provides evidence and insights for the further development of environmental education curricula and pedagogical strategies, understandings of a range of factors influencing learners’ environmental engagement and action and, consequently, ecologically focussed research endeavours.

Balancing the Disciplines: A Multidisciplinary Perspective on Sustainability Curriculum Content

Kate Sherren97

This paper explores appropriate disciplinary content for generalist sustainability degrees, based on two recent surveys. A questionnaire was used to extract from a multidisciplinary, largely academic audience – all of whom share an interest in sustainability – their views as to the disciplinary knowledge that a university-based sustainability education should include. This was undertaken because the current focus in sustainability education literature on generic skills and pedagogical method provides little insight to assist curriculum developers with disciplinary content. While the sample was limited, respondents came from a diverse group of disciplines and thus supply a broad perspective to curriculum design. Recommended teaching methods were also captured, for both undergraduate and graduate levels, as well as the academic backgrounds of the participants for the purposes of investigating bias. The findings were compared with curricula from existing Australian coursework programs and showed that a slight rebalancing towards the human sphere is necessary.

Facilitation in Education for the Environment

Glyn Thomas.....109

The concept of education *for* the environment is well documented in the literature but is apparently less common in practice. Some of the reasons provided for this rhetoric-reality gap include: the controversial and political nature of the subject, the difficulty of empowering students into meaningful action, the challenge of using innovative methods, the difficulties associated with values education, and deficiencies in teacher preparation. Advocates of education *for* the environment encourage teachers to use student centred, experiential approaches yet provide little guidance to teachers on how to effectively utilise these approaches in their programs. There is a growing body of literature in the field of facilitation that is directly applicable to student-centred, experiential, environmental education. This paper will seek to demonstrate the relevance of facilitation skills, knowledge and experience to the effective implementation of education *for* the environment.

**Popular Education for the Environment:
Building Interest in the Educational Dimension of Social Action**

James Whelan.....119

Community-based environmental education is an important part of the sustainability project. Along with regulation and market-based instruments, adult learning and education in non-formal settings consistently features in the sustainability strategies advocated and implemented by government, community and industry entities.

Community-situated environmental education programs often feature didactic “messaging”TM, public awareness and community-based social marketing approaches. Clearly, these approaches have limited capacity to stimulate the social learning necessary to reorient toward sustainability. Popular education provides a framework to break from these dominant modes of environmental communication and education and achieve outcomes of a different order. Popular educators build curriculum from the daily lives of community members, address their social, political and structural change priorities, and emphasise collective rather than individual learning. Their work creates opportunities for education as social action, education for social action, and learning through social action.

Case studies from Australia and the United States highlight opportunities for community educators to draw on the traditions and practices of popular education. Residents of contaminated communities organise “toxic tours”TM to bolster their campaigns for remediation. Residents and conservationists concerned about freeway construction incorporate learning strategies in their campaign plan to enhance peer learning, mentoring and prospects of long-term success. Advocacy organisations and research institutions work together to create formal and informal educational programs to strengthen and learn from social action. The principles derived from these case studies offer a starting point for collaboration and action research.