

As Aussie as Vegemite: Building the Capacity of Sustainability Educators in Australia

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Abstract

Vegemite, a thick, rich and salty product made from yeast extract, is a paste commonly spread on bread or toast in Australian households. This iconic product mirrors some of the unique aspects of this country. For example, Vegemite thinly spread is best. The population of this country is sparse across the wide lands, and the Australian environment with its thin soils, water shortages and intense climates, might also be described as spread thin. These aspects of context present challenges because Australia needs quality sustainability educators thick on the ground to deal with the many and diverse environmental issues.

This paper describes the development of the Australian National Professional Development Initiative for Sustainability Educators (NPDISE) and how it was influenced by the Australian context. Multiple challenges existed: the size of the country, its environmental conditions and rich biodiversity, distance and space between major centres, distribution of people and resources, understanding of and support for education, and three tiers of government – each with its own policies, programs and priorities. On top of this, the practice of sustainability education crosses multiple professional sectors and disciplines. All these challenges had to be taken into account.

Research conducted by the Waste Management Association Australia in 2009 revealed that the needs of Australia's sustainability educators in overcoming many of these challenges were broadly consistent around Australia. This gave encouragement to the establishment of a national professional development approach for those working in the environmental education field. This paper shows how four professional associations – Australian Association for Environmental Education, Waste Management Association Australia, Australian Water Association, and the Marine Education Society of Australasia – worked together for the first time and approached these challenges whilst developing the NPDISE. A 1954 jingle said Vegemite would help children “grow stronger every single week”. The NPDISE represents a similar ethos with an emphasis on building the sector.

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Introduction

This paper provides an overview of the creation of a national approach to professional development for sustainability educators in Australia – the National Professional Development Initiative for Sustainability Educators (NPDISE) – and discusses some of the challenges faced during its formation. It explains how the approach taken by four key Australian professional associations – Waste Management Association of Australia (WMAA), Australian Water Association (AWA), Marine Education Society of Australasia (MESA) and the Australian Association for Environmental Education (AAEE) – addressed major and unique Australian contextual issues in the design stage. In these initial stages of the NPDISE, the prime areas of attention have been program development and program governance. As yet, there are few examples of delivery of the modules and no evaluation on the effectiveness of this collaborative program.

In this paper, the preferred term for educators in this field is sustainability educators. This follows Sterling's (2008, p. 65) definition, since the Associations agreed that the focus of the NPDISE workshops would encompass cultural, systemic, environmental and personal change:

Hence, the concept of “sustainable education”, a term which suggests not just a simple “add-on” of sustainability concepts to some parts of the curriculum, but a cultural shift in the way we see education and learning. Rather than a piecemeal, bolt-on, fragmentary response which leaves the mainstream otherwise untouched, it implies systemic change in thinking and practice, informed by what can be called more ecological thinking and values – essentially a new paradigm emerging around the poles of holism, systemic thinking, sustainability and complexity. This offers the possibility of education that is appropriate and responsive to the new systemic conditions of uncertainty and complexity that are reflected in the headlines everyday; one that nurtures the increasingly important qualities of adaptability, creativity, self-reliance, hope and resilience in learners.

Vegemite, the iconic Australian spread used on toast and in cooking, gives a flavour of the challenges and opportunities faced in establishing a national professional development initiative. It is rich, thick and one of the world's richest sources of vitamin B. The age, size and variety of environments means this country is rich in biodiversity. There is much to understand and equally much to accommodate and protect; educators understand that each community has its own regional ecosystems to preserve. The NPDISE is an innovative program that is designed to provide opportunities for sustainability educators whether they work in community, government, formal education or industry, and whether they work in Bondi, Bourke, Brisbane or Broome - anywhere across our vast continent where Vegemite is sold!

Each of the participating associations has members who design, deliver and evaluate sustainability education; many come to the profession from different background disciplines and with differing qualifications. The Associations and their diverse members therefore brought a richness of needs, ideas and thinking to the development of the NPDISE. In 2006, the NSW Department of Environment Climate Change and Water undertook research into the needs of educators in the field. It revealed that many do not have formal qualifications in education. Because this is a relatively new professional sector, many practitioners lack the depth of experience required for delivering quality education about sustainability.

To date, short course professional development opportunities for sustainability educators in Australia have had these characteristics: ad hoc; designed to meet short

term needs of specific groups of educators; variable in terms of quality and delivery; limited in availability; and not linked or integrated across sectors, issues or fields. Professional development for sustainability educators has attracted little consistent government support, and it is poorly articulated into further training or qualifications. In the Vocational Education Training sector¹ sustainability education has no Government led Industry Skills Council to support it, nor does it feature extensively in training delivered under the National Training Framework². This is despite the fact that for many years both academics (Robottom, 1987) and practitioners (Waste Management Association, 2006, 2009) have been calling for improved professional development for education practitioners.

In sum, short course professional development for those working in this field in Australia has lacked direction, depth, quality and an overarching vision. The NPDISE seeks to redress this situation.

Brief Overview of the National Professional Development Initiative for Sustainability Educators

Establishment

New initiatives develop in different ways. Often they begin with the dreams of one or two people for a better future or a better way of working. In this instance, two volunteers – elected executive members of the AAEE – took the lead in 2006 and invited representatives from the other three associations to meet and discuss, in principle, the idea of developing the professional skills of our sector. Successive Australian National Action Plans (Australian Government, 2000 and Australian Government 2010) and needs assessment processes at State and Territory level had indicated the need for quality-assured short courses that would enhance the skills of practitioners. The Associations pondered: Could we fill the gap? What would happen if we opened this jar? Could we help build a profession that would “grow stronger every single week” just like the Vegemite kids in the Kraft jingle (Weeks, 1954)?³

Flowing from these initial discussions and working together formally for the first time, representatives from the four associations successfully submitted an application for seed funding of \$AU35,000 to the Australian Government, with WMAA as the formal applicant. Following on from the success of this application, the Associations formed a Project Management Group for the project and its first task was to commission research into the needs of sustainability educators in Australia. This was overseen by the Waste Management Association of Australia in 2009.

This research coupled with the findings from other state based research, for example, the needs assessment undertaken to inform the development of the NSW Education for Sustainability (EfS) Learning Hub (NSW Department of Environment Climate Change and Water, 2006) revealed the following broad areas of need for professional development needs within the sector:

- design and evaluation of education programs;
- facilitation;
- behaviour and organisational change;
- community engagement;
- strategic planning and project management; and
- building a case for sustainability/gaining organisational support.

Structure

Just as Vegemite is ubiquitous in Australia, so too are the needs of sustainability educators, wherever and however they work. These needs shaped the structure of the NPDISE framework, as did the principles of sustainability and adult learning, and an appreciation of adult-based training strategies.

In identifying existing providers and modules, and developing new modules to deliver through the NPDISE, the Project Management Group has been diligently established quality assurance protocols so that only the highest quality modules are recognised under the program. Consistent with leading practice as advocated by the International Union for the Conservation of Nature (Hesselink, Pretorius & Wheeler, 2005), the NPDISE approach responds to the identified educator needs and the core goals of the United Nations Decade of Education for Sustainable Development (DESD). The NPDISE has mechanisms in place to evaluate delivery of each recognised module and to assess each participant's learning prior to issuing of a certificate under the program. These are designed to ensure the content, training and the delivery models remain relevant and appropriate to the target audiences and to ensure that formal recognition is validated.

The NPDISE is currently comprised of sixteen recognised modules, each of one or two days duration that can be delivered anywhere across our wide and brown land (for details please see the NPDISE website www.npdise.com.au). Unlike the cost of our famous and favourite black paste which varies away from the major metropolitan areas, the delivery of an NPDISE module costs the same everywhere, as long as the group size exceeds fourteen participants. The Initiative is managed by a Registered Training Organisation on behalf of the four Associations.

Ultimately, the NPDISE is intended to provide a bridge for sustainability educators between non-formal education, the formal higher education sector and vocational studies so it was essential to structure it in this context. The NPDISE also provides the initial step in the proposed creation of a continuing professional development accreditation protocol for all four Associations (Collier & Armstrong, 2010).

The Australian Context: Addressing Characteristics and Challenges

In developing the NPDISE approach, the Associations were mindful of the diversity and extent of our unique island country and the significant challenges it brings to professional development. In many cases it is not the exceptionality of each individual challenge or problem but their *combination* that makes the Australian context unique.

The Size of the Environmental Problem

Size matters. And Australia is big! Geophysically, Australia is unique in the world – like Vegemite. The ecological and environmental challenges and opportunities are diverse. Extremes of climate, a lack of water, an agriculturally productive coastal strip and an arid, non-productive inland, a wealth of indigenous biodiversity of both flora and fauna and richness in mineral resources, make Australia a land of extremes. The 2006 State of the Environment Report (Department of Environment, Water, Heritage and the Arts, 2006, p. 35) indicates that:

Australia's biodiversity is distinctive because of the country's size, isolation, naturally fragmented landscapes and long-term climate variability. For example, about 80 per cent of vertebrate species and plant species are found nowhere else in the world. Many of Australia's ecological communities have a relatively low resilience to external pressures, particularly those in habitats that have already been extensively modified, such as in the wheat–sheep belt

and semi-arid areas, where many species have suffered a significant decline in numbers and range and even extinction.

In Australia, soils are becoming increasingly salty. Salinity, in part the consequence of many years of land-clearing, is a major issue confronting governments and communities. It is one of many concerns that sustainability educators across Australia address in their work.

In addition, In addition, Australia is highly susceptible to climate change impacts. In the online summary of his 2008 Climate Change Review, Professor Garnaut points out in Chapter 6 that “Growth in emissions is expected to have a severe and costly impact on agriculture, infrastructure, biodiversity and ecosystems in Australia”.

Because of our geophysical diversity, sustainability educators work across all parts of the country on a wide range of environmental issues and with variable professional support mechanisms. Some work in water education, others work in energy reduction, in waste management education, in mitigating against climate change and in biodiversity. Some work in industry, others for not-for-profit environmental organisations; lots work for Government – local, state or national – and in schools, universities and vocational training organisations. Those developing and delivering education respond to different challenges daily, be they in the classroom, at the mine site, in a government office or on a tour operator’s boat in the Great Barrier Reef.

The NPDISE Approach: With this diversity in mind, the NPDISE has been designed to build and strengthen the professional competencies of educators so that they can plan and deliver programs anywhere in Australia about any relevant, local or national sustainability issue. The recognised modules focus on skills for sustainability educators (e.g. facilitation), rather than specific technical content (such as how to improve energy efficiency in the home). Advice from educators in the field indicated that they were well able to access professional training in the specific technical content/knowledge required for their roles. What they say they needed was enhanced planning, delivery and evaluation skills, especially for behaviour change programs. The NPDISE providers therefore tailor their modules for the context or interests of the different groups that are booking them through the Initiative. For example, a module on evaluation will be focused differently for a group of council educators than it would be for an audience of community educators working for non-government organizations.⁴

The fact that the modules are designed, delivered and evaluated using principles of learning for sustainability (Tilbury, Stevenson, Fien, & Schreuder, 2002) better ensures a robustness of approach across the program. In addition, all modules focus on enhancing reflective practice and promote the use of “ethical and contextual considerations in professional decision making rather than making such decisions on the basis of habit, intuition, impulse, and tradition” (Fien & Rawling, 1996, p. 11). This occurs within a contemporary sustainability context.

The Challenge of Geographical Spread of Sustainability Educators and Self-Identification

In line with the spread of the Australian population, the geographical spread of educators involved in the design, delivery and evaluation of sustainability education is diverse. While actual numbers of sustainability educators operating in Australia are not known, it is estimated by the four Associations that there are in the order of 2,000 people delivering some sustainability education (not including classroom teachers). Association memberships give some clue to the size, but not all members are educators: for example, a considerable proportion of AWA and WMAA members belong to these associations to meet more technical needs (e.g. water engineers, waste contractors).

The size of the profession is also unclear because a significant amount of education is carried out by non-education specialists and only as a part of their roles. For example, engineers write brochures, scientists run community education workshops, communications specialists design education projects, and bushcare coordinators educate volunteers about weeds, indigenous species and planting. These people often don't call themselves educators. But they do the job of education. Much of Australia's sustainability education is delivered by people with little or no education skills training and minimal educational professional support. The NSW Department of Environment Climate Change and Water (2006) research indicates that in many cases educators are working in isolation and are often managed by personnel who have little understanding of the nature and practice of high quality education programs. It could be argued that this is a product of a low valuing of education itself and of educators in this country, both of which have real implications for quality, support and professional development.

The NPDISE Approach: The NPDISE takes on the challenges of making professional development work in the "spread-outedness" of the land and its sustainability educators very seriously. Therefore:

- The NPDISE modules are designed to be of use to anyone designing and delivering sustainability education initiatives, regardless of what they call themselves.
- As indicated previously the cost structure for workshops is the same in every location across Australia.
- Modules are structured so that relatively inexperienced educators can access professional development designed at the early entry level.
- Locally organised delivery is an essential principle for the NPDISE. This means that while generic modules are recognised in the program, facilitators will be able to present their material in a way that meets local needs.
- In-house delivery is also available, meaning that a module can be delivered in-house to all relevant staff at a single organisation or group of linked organisations, at a reduced cost. (AAEE, AWA, MESA, WMAA, 2010)

The Nature of the Sustainability Education Community and Audience

As indicated, educators across Australia are working with a vast range of audiences and contexts. In order to effectively design and deliver quality education initiatives, the educator has to appreciate the needs of the particular audience and situation. Each professional who develops and delivers a program must have a clear view of the audience across a number of demographic and other measures. The following features need to be accommodated in sustainability education initiatives in Australia.

Demographics: The population of Australia is approximately 22.5 million⁵ (Australian Bureau of Statistics, 2010). According to the Bureau of Statistics 2006 Census Report its demographic features include that:

- Over 66% of Australians live in capital cities;
- More than three quarters of Australians live in the eastern states (ACT, Victoria, NSW and Queensland);
- Approximately 40% of Australians are overseas born and over 20% of Australians speak a language other than English at home;
- Only 2.5% of people live in remote areas;
- Approximately 2.4% of the population is indigenous;
- Over 40% of Australians have completed year 12 schooling or equivalent;⁶
- The annual growth rate of the population is approximately 1.5%; and
- Over 66% of dwellings in major cities have internet access compared to approximately 42% for very remote Australia.

The Associations recognise and acknowledge the demographic variation across the nation, but the NPDISE deliberately retains a focus on the core skills that educators themselves have asked for.

Government: Government is “heavy” in Australia. There are three tiers of government to serve the Australian population – national, state and territory (8 jurisdictions) and local government (approximately 500 jurisdictions). Education must build partnerships across these different levels of government, policies and approaches in order to achieve good and sustainable outputs and outcomes. The NPDISE is designed to support partnership-building.

Behaviour: Australians have indicated that they are prepared to make change for environmental reasons, and education is a vital tool in helping them do so. One example of such a change may be seen in the reduction of water usage in Sydney. Motivated through a combination of water restrictions, education and incentives, water usage in Sydney, Australia’s largest city, has reduced over the past 19 years from 506 litres per person a day in 1990–91 to 314 litres per person a day in 2009–10. Sydney residents use less water now than they did in 1974, even though the population has increased by more than a million people during that time (The Audit Office of NSW, 2010). Similar levels of water reduction have occurred in other major Australian centres over the last few years.

Chapter 36 of Agenda 21 (United Nations, 1992) reminds us that education for behaviour change is important if we are to achieve a more sustainable world. People across the country need to be shown how, and to understand why. Education must be well planned and delivered and link with other motivating strategies to achieve the best results.

The NPDISE Approach: The NPDISE approach takes account of the spread of the Australian population in terms of location, cultural background and education level. The NPDISE places a significant emphasis in its recognised professional development modules in assisting practitioners to deliver programs that motivate behaviour. The modules assist practitioners to develop programs in partnership as appropriate, and at relevant levels of skill, language, reading age, education level, methodology and approach. They help local practitioners to plan programs that are appropriate for people from diverse cultural and linguistic backgrounds.

The Nature of Australian Education Systems

A number of characteristics defining the Australian education system influenced the shape of the NPDISE, particularly with regard to its focus on short rather than longer courses.

Higher Education: Across the tertiary education sector, competition for students drives (to some extent) the development and shape of courses. While an increasing number of relevant sustainability courses are coming on line in tertiary institutions, there is some evidence that the implementation is somewhat slow and this might be due to a range of barriers related to the nature of tertiary education (Thomas, 2004). The NPDISE, sitting in the professional development sector rather than formal education, was instead designed to meet practitioner-identified needs and provide immediacy of training. At this early stage, whilst the Initiative is not part of the formal tertiary education sector, it has been developed so that future articulation with the formal sector can occur. In addition, while increasing numbers of courses relevant to the needs of sustainability educators are being conducted through universities and TAFEs (Technical and Further Education colleges) all of these courses require time and financial contributions from the student – sometimes these are significant. The NPDISE modules on the other

hand are short one or two day courses that can be taken as stand-alones according to the particular professional development needs or interests of an individual or their organisation. Articulation will make them more attractive to potential participants.

Schools: The NPDISE is a professional development initiative not targeting schools or teachers. However, the new national curriculum influences the context in which the NPDISE is developed. The Australian curriculum mandates sustainability as a cross-curriculum dimension: all teachers in Australia are required to integrate sustainability knowledge, skills and values into their teaching. The implications are that students will leave schools more attuned to the need for sustainability education, wherever they work; and they will leave more equipped to take up careers in the sustainability sector.

Community (Non Formal) Sustainability Education: Across Australia, education agency support for those working in non-formal sustainability education varies. The task of building the capacity of this sector has fallen to the state environment departments, whose interests are to shift public behaviours towards sustainability. But education and training are outside the core remit of many environment agencies and understanding of education sector and systems is limited. In most cases, environment agencies are comfortable working within the formal education sector where they can partner education departments. However, when it comes to non-formal education, there are challenges and gaps; education and environment agencies have not yet taken non-formal sustainability education seriously enough to strengthen the skills of the educators who are required to provide it. So a gap remained. In part, the NPDISE was developed to fill the gap.

As far as funding for non-formal education at the national scale goes, small grants (such as the one that provided seed funding for the NPDISE) were, until recently, the extent of the support. But now even this has disappeared. During 2010, the new Commonwealth Government Department of Sustainability, Environment, Water, Population and Communities ended funding for community (non-formal) education. So, despite its 2009 National Action Plan that identified sustainability education of the community as vital, emphasis by the Commonwealth Government on building the capacity to design and deliver that education has fallen away quite significantly. No funding stream is currently available.

The NPDISE Approach: The NPDISE approach has involved working with a Registered Training Organisation to not only manage the program but also to develop an accreditation process that will, in the future, link the participants into further qualifications – if participants wish to pursue them. Australian training and education institutions have a system of recognition of prior learning (RPL) into which the NPDISE modules will link. The RPL system is based within the Australian National Training Information Framework and overseen by the National Training Information Service.

Conclusion

The development of the NPDISE by the four Professional Associations marks a significant change and a highly important move forward for the sustainability education sector. The widespread interest and support by the sector indicates that it has made an encouraging beginning in meeting a need. Follow-up research will be conducted to test the effectiveness of this approach in terms of attracting participants and influencing the way they design and conduct their work.

For the first time formally in the sustainability education sector, the AWA, WMAA, AAEE and MESA have brought together their expertise, networks and energies to create a jointly owned professional development program that improves the capabilities of sustainability educators, whatever their focus in sustainability. The NPDISE has grappled with challenges inherent in doing the business of professional development in

Australia for a diverse and multi-focused audience. It has created a path and direction for improved sustainability education, therefore potentially influencing sustainability outcomes for the country in a significant and ongoing manner. The major challenge for the roll out of the program will be encouraging those educators delivering sustainability education across Australia to engage in ongoing professional development using the NPDISE recognised modules on a user pays basis.

Into the future the four associations have reached agreement that the sector needs to move towards developing and mandating a continuing professional development model that recognises educators who maintain continuous approach to their professional development. There is much work to do before this vision becomes a reality, but the strategic direction is in place and it has been significantly seeded by work on the NPDISE.

In the same way as Vegemite helps Australian children to “grow stronger every single week” the NPDISE is designed to be vital element in growing the capacity of Australian sustainability educators to provide the highest quality programs in their communities. The NPDISE helps to build a network of professional development and practice for sustainability educators so that they can work “thickly and actively” within the Australian community, education institutions, and business and industry to address our current and future sustainability challenges and opportunities.

Keywords: professional development; capacity; collaboration; diversity; sustainability; education.

Endnotes

1. The Vocational Education Training (VET) sector in Australia is “education and training for work” and part of a broader educational network that includes schools, universities and adult community education. Australian Capital Territory Department of Education and Training (2010) Retrieved from http://www.det.act.gov.au/vhe/the_national_vet_system
2. The National Quality Training Framework is the nationally consistent, industry-led system for all Australian education and training. Its remit includes providing for nationally recognised qualifications and standards. As at July 2011 the responsibilities are being moved to a new organisation called Training.Gov.Au. Retrieved from Commonwealth Government (n.d.) <http://www.training.gov.au/pages/menuitem8859775ffeb7888a392e51017a62dbc.aspx>
3. From the jingle “Happy Little Vegemites” written in 1954 for Kraft, by Alan Weeks, and still played today.
4. A non-government organization (NGO) is a not-for-profit, voluntary citizens’ group, which is organised on a local, national or international level to address issues in support of the public good. United Nations (n.d.) Retrieved from <http://www.un.org.au/files/files/NGO%20Association%20with%20DPI%20v.2.pdf>
5. As at 09/07/2011 the Australian Bureau of Statistics website cites the Australian Population as 22,646,293 Retrieved from www.abs.gov.au
6. In Australia Year 12 students are aged 17-18 as cited by Wikipedia. Retrieved from http://en.wikipedia.org/wiki/Twelfth_grade

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