Popular and informal environmental education: the need for more research in an "emerging" field of practice

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W. Bertelsmann Verlag

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Environmental education that fosters meaningful community participation and learning has been considered a requisite to sustaining our human and natural environments in many of the global conferences, agreements, declarations and charters since the 1972 UN Conference on the Environment in Stockholm. Despite this growing consensus there is a small amount of published research in Australia in this field of practice we have decided to call popular and informal environmental education - education that often involves adults in social action. The authors argue, however, that there is no shortage of educational practice that can be described as popular and informal environmental education. The autors propose a typology that will assist in defining this field of practice and establish theoretical links with the emerging field of environmental adult education.

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Popular and Informal Environmental Education – The Need for more Research in an "Emerging" Field of Practice

Environmental education that fosters meaningful community participation and learning has been considered a requisite to sustaining our human and natural environments in many of the global conferences, agreements, declarations and charters since the 1972 UN Conference on the Environment in Stockholm. Despite this growing consensus there is a small amount of published research in Australia in this field of practice we have decided to call popular and informal environmental education – education that often involves adults in social action. The authors argue, however, that there is no shortage of educational practice that can be described as popular and informal environmental education. The autors propose a typology that will assist in defining this field of practice and establish theoretical links with the emerging field of environmental adult education.

1. Introduction

A metropolitan local government authority obtained an external grant to do stormwater education with low-income residents of non-English speaking background. A project officer was appointed for twelve months. She organised bus tours to stormwater facilities, distributed brochures and fridge magnets and showed educational videos with translations. She observed that the residents deeply appreciated the opportunities for bus tours, but less because they learnt about stormwater pollution and more because they formed new or stronger friendships. She concluded educational strategies that relied on field trips, social marketing and formal instruction would, on their own; neither engage nor influence the residents. The project officer drew on traditions of community cultural development and popular education to devise strategies that would start with their experiences and involve collaborative and action-oriented learning. These included learning and being enabled to research, plan and organise an evening slide show about environmental issues in their neighbourhood. In her evaluation the project officer proudly pointed to growing participation numbers and good media coverage.

This is a hypothetical, yet, typical account of community-based environmental education. Note the characteristics: There are no students; instead there are learners or participants. There is no teacher; instead there is a program planner and facilitator. There is no formal curriculum with a set commencing and completion time – but there is a thoughtful approach by the project officer to intentionally plan and facilitate

action and learning for the environment. There is a less thoughtful approach to the evaluation. Little evidence is collected about the quality of what people learnt about stormwater, let alone whether the amount of stormwater pollution was reduced.

About 100 adult members of a national environmental advocacy group come together for an evening meeting that includes a film about a direct action campaign. The film presents some provocative, radical and contested actions. After the film the air is pregnant with tension, and it is almost possible to see the questions and ideas swimming around in the mind of the members. Yet, the evening is late and the members go home without a whole-group discussion.

This actually happened and presents a common scenario where opportunities to proactively plan and facilitate learning about practice are missed. There is significant potential for environmental education in the advocacy-oriented environment movement.

A group of forty catchment educators is sitting around a table, showing each other and talking about the strategies they use. Posters are spread across the table, calico bags with messages are pulled out, and two videos are proudly shown. For a while the discussion is pensive and reflective. They note that their educational strategies are similar but have little evidence of how effective they are. A suggestion is floated that they collectively invest in some research and evaluation. This idea is quickly lost in the sense of urgency that they get must "get the message across" and they decide to spend the remaining money on a bigger and "better" poster.

In this semi-fictional account a sense of urgency discourages reflection and analysis. The consequence is that action is not informed by research and evaluation, and the catchment education relies on taken-for-granted assumptions about what is effective.

The three accounts present the type of environmental education practice we are most interested in, and convey the issues we believe face the field. We will refer to this field of practice as popular and informal environmental education, often involving adults in social action, workplace and community settings.

We believe that popular and informal environmental education is important to achieve the goals of ecologically sustainable development. As evidence of this, we identify a number of key environment and education-related global agreements that explicitly acknowledge the value of this field of practice as complementary to formal environmental education. We then proceed by providing a definition and a description of current theoretical formulations that relate to popular and informal environmental education. Finally we argue that there is a need to sustain this growing interest in the practice of and the research into popular and informal environmental education, if we are to effectively evaluate and see its contributions to the ideals of sustainability.

We propose that in the first instance, there is a need to encourage environmentalists to pro-actively plan and facilitate learning – in other words, to encourage the

practice of environmental education even within contexts where people do not identify as "educators". In the second instance, there is a need to encourage more research and evaluation of popular and informal environmental education, if we wish to identify its contributions to achieving the goals of ecologically sustainable development.

2. Environmental adult education in environment and education policies

At a recent forum a participant asserted there was little point in trying to change the transport behaviour of adults. "They are set in their ways. That's why we concentrate on educating children in schools." This is a narrow and misleading analysis that suggests only school teachers do any worthwhile action and education for sustainability. This section examines the recognition of the need for adult environmental education as complimentary to the emphasis on formal and school-based education within policy formulations.

Slattery (2000, 86) forwards a counter-argument and says that adults are more likely than children to be significant players in communities, groups and locations, and are able to "enthuse and organise" and possess the necessary awareness upon which to base political action and to influence and educate others. She endorses Clover's (1998) argument that environmental educators should support adults in active, critical and creative engagement.

These same arguments are supported by global environment and educational policies. For example, UNESCO, in its report presented during the World Summit on Sustainable Development in Johannesburg (2002, 37) underscored that,

> the precautionary principle tells us that a major reason for focusing on adult education for sustainable development is that it would be unwise to wait for the present generation of school and college students to grow up and begin applying what they are learning. It is today's adults who are the primary voters, consumers, workers, teachers, scientists and parents.

The importance of the adult and community education or non-formal education within the context of environmental education is not new. Fensham (1978, 450) observed that during the UNESCO Conference on Environmental Education in T'bilisi, Georgia in 1977 "the significance of non-formal education was stressed – something formal education often ignores." This recognition is equally present in Chapter 36 of Agenda 21 (UNCED, 1992) entitled, "Promoting Education, Public Awareness and Training" which "encompasses all streams of education, both formal and non-formal, basic education and all the key issues related to educating for sustainable human development, including environmental education."

More recently, another reorientation of education towards sustainability seems to have been an outcome of the 1997 Thessaloniki conference on environmental edu-

cation, which identified strategies to attain the goals and objectives of Chapter 36 of Agenda 21 but also recommended that "environmental education be referred to as education for environment and sustainability" (Knapp 2000, 32). Similarly, despite the reorientation, the Thessaloniki Declaration specifically identified that education towards sustainability involves, "all levels of formal, non-formal and informal education in all countries" (Knapp 2000, 39).

Similarly, at the conclusion of the Fifth International Conference on Adult Education (CONFINTEA V) the participants ratified the Hamburg Declaration on Adult Learning (1997, 5) which explicitly identifies that,

> education for environmental sustainability should be a lifelong learning process. (…) Adult environmental education can play an important role in sensitizing and mobilizing communities and decision-makers towards sustained environmental action.

At a national level, while the *Environmental Education for a Sustainable Future: National Action Plan* (2000) strengthens environmental education of children it also emphasises the need to take environmental education "beyond the classroom – reaching the community, industry and business leaders, and government at all levels."

Clearly, there is no lack of environmental or educational policies that acknowledge the value of environmental education across the different sectors, and using a range of educational approaches. The following sections explore the practice we refer to as informal and popular environmental education and examine this educational practice within the recent development of theoretical foundations of informal education, popular education, and environmental adult education.

3. Popular and informal environmental education in practice

The NSW Council of Environmental Education compiled an inventory of environmental education programs (in 2000, published 2003) and this provides a useful picture of the balance between different types of education practice. The following table reports on the percentage of responses by practitioners when asked to choose what "method of program delivery" they used when engaged in environmental education. Respondents could choose more than one method.

As the inventory in Table 1 illustrates, there are many ways that educational practitioners and groups describe their practice, but that a significant percentage of the respondents described their practice as community education (including advocacy). We propose that this educational practice of community education, including advocacy, will be referred to as popular and informal education for sustainability.
Popular and informal education for sustainability draws from, and goes beyond being a combination of educational practices, such as environment education, development edu-

cation, adult education, non-formal education, and community education. Its practice continues to be linked to and influenced by Paulo Freire's *educacion popular* that "makes oppression and its causes the objects of reflection by the oppressed, and from that reflection will come their necessary engagement in the struggle for liberation" (Freire 1993, 30). While the practice of *educacion popular* has grown and diversified (cf. Allman 1999; Arnold et al. 1983a, 1983b, 1991; Beder 1996; Boughton 2001; Crowther, Martin & Shaw 1999; Deem 1993; Hammond 1998; Jackson 1995; Walters/Manicom 1996), Robert Schapiro argues that the fundamental philosophy, which includes "notions of empowerment, liberation, self-determination and political action leading to structural social change" (1995, 30) has remained the same.

Community education (including advocacy)	35%
Information services (print, telephone)	26%
General education curriculum	20%
Social marketing	20%
Outdoor education	19%
Vocational education & Workplace training	16%
Community development	14%
Extension	11%
Vocational education & educational institution training	9%
Labour force training program	5%
Cultural/eco tourism	3%
Method not given	28%

Table 1: Methods of environmental education program delivery (NSW Council of Environmental Education, 2003)

Popular education needs to be distinguished from other educational practices, such as adult education, which has often been narrowly focused in the "English-speaking world (…) on individual learners, educational technique and course provision" (Foley 1999, 2). Or from non-formal education, which is education that serves specific groups in specific situations outside the formal system (cf. van Rizen 1996, 82). Patricia Ann Wagner (1998, 21) distinguishes popular education from adult, non-formal or development education in that popular education has closer links with the people's movement for a democratic and sovereign nation, "works for the empowerment of the majority, and uses a democratic and dialogical pedagogy." Therefore in the context of our current research, popular education will refer to an educational practice that is within the context of people's movements and uses a participatory pedagogy, works for empowerment and aims for social change.

Furthermore, we prefer to use the term informal as opposed to non-formal environmental education. Because the latter has more currency (see for example, UNESCO 1986) we will define our understanding of informal education in some detail.

Foley (2000) presents a four-fold typology of education and learning that incorporates formal and non-formal education, informal and incidental learning. The first two "types" – formal education and non-formal education – deal more with the context in which teaching and learning take place. The second two – informal learning and incidental learning – deal more with the way in which the teaching and/or learning is done. The different "types" are not exclusive. For example, a great deal of incidental learning may occur in both formal and non-formal education contexts (Newman 2003, personal communication). We suggest, therefore, that it makes more sense to have two typologies – one of education and another of learning. To the two types of education, we think a third should be added, namely that of informal education. Our version of the typologies is presented in Table 2.

Type of Education	Type of Learning
Formal education is characterised by a defined curriculum and is often credentialed.	Informal learning is characterised by the learners consciously trying to learn from their experiences, but does not involve formal instruction.
Non-formal education is characterised by systematic instruction but is mostly non-credentialed.	Incidental learning is characterised by Foley as learning that is "incidental to the activity in which the person is involved, is often tacit and is not seen as learning – at least not at the time of its occurrence" (2000: XIV).
Informal education is characterised by "educators" planning and intentionally creating the conditions that facilitate informal learning, which may include some systematic instruction but which will rely on many other means.	

Table 2: Typology of education and learning (based on Foley 1999)

Non-formal education can be defined in such a way as to embrace the informal education we refer to. But the term "non-formal education" has come to be understood in quite specific ways. It has gained currency in international development circles and is used by multilateral aid agencies, and in countries of the third or majority world. For example, in Thailand and in the Lao People's Democratic Republic there are government departments of non-formal education. These departments are responsible for adult basic education (literacy, numeracy, basic vocational skills training, and second-chance education for adults completing school equivalent qualifications). In practice, much of this education has defined curricula, is course-based, and credentialed. But it is seen to sit outside the formal education system of schools, colleges and universities.

The term non-formal education refers more to a difference of sponsorship and setting. In Australia, the term non-formal education has little currency. Adult and community education is more widely used and refers to education provision outside the "formal" system.

Jeffs and Smith (1990) argue that informal education is to be defined less by setting or sponsorship and more by a form of pedagogy, a way of working. Jeffs and Smith propose seven features that characterise informal education (6).

1. Informal education can take place in a variety of physical and social settings – for example, schools, community centres, protest actions, peer support groups.
2. There is no regular or prescribed form of informal education. It might involve group activities, projects, structured discussion and many other types of activities.
3. The learning may initially appear to be incidental but is, in fact, planned and monitored. It is important to understand that learning takes place not only through overt educational strategies such as workshops and projects but also by being engaged in a particular process of interactions. Workers help people learn through the way language, power and cultural representations are organised.
4. Timescales are highly variable.
5. Learning is negotiated through collaborative forms of working.
6. Informal education is dialogical. There are contesting perspectives on what learning through dialogue is and means, but Jeffs and Smith (1990) maintain that informal education is not about the simple conveying of information or the facilitation of discussion. Informal educators "give careful attention to words, the ideas that they express and the actions that follow" (9).
7. Informal education can involve a variety of ways to facilitate learning. It can include, for example, some didactic instruction, experience-based learning activities, and action-research.

Of course, not all education that takes place in community settings is informal education. Community educators may provide formal structured courses, and the participants in an informal activity may well give it a structure and purpose and so formalise it themselves. Nor can we say that informal education is limited to community settings. Clearly it can also take place in workplace and institutional settings.

Finally, we think it unwise to assume that informal education is necessarily more flexible and creative than formal education. This is where we differ from previous studies of informal education. Josephine Brew (1942), Malcolm Knowles (1950) and Mark Smith (1992) have written about informal education as if it were a particular method with inherent virtues. In one respect we agree with this. A central premise of our research is that informal educators do plan and facilitate learning in quite different ways to school teachers and trainers. But we prefer to see informal education not as a method but as a specialised field of practice in which there are contesting perspectives and an array of methods.

Therefore, this paper focuses on popular and informal education efforts to bring about change and learning for sustainability that happens outside schools and formal courses. These education efforts are situated within the context of local environments and involve people's movements, which are not limited to environmental groups, but to organisations that work with and for local communities, initially within Australia.

4. Researching popular and informal environmental education

The above description of popular and informal environmental education and the contexts in which these are practiced would naturally involve a broad range of practitioners, groups and agencies which are in the "business" of planning and managing changes that will contribute to environmental sustainability. This includes those in government, non-government and business organisations and can be drawn from a wide range of fields; for example, and this list is by no means exhaustive – communications, marketing, education, training, campaigning, regional and industry development, capacity building, cultural development and the arts, health promotion, community work and social action.

Not only does popular and informal environmental education involve a diverse set of practitioners, it equally involves a wide range of environment issues, as table 3 illustrates.

Environment issues	Examples of informal environmental education initiatives
Waste reduction and recycling	Clean Up Australia, Waste company awareness campaigns (eg. J. J. Richards)
Energy efficiency and conservation	Cool Communities, state government programs, local government Cities for Climate Protection program
Biodiversity conservation	Threatened Species Network (WWF)
Water conservation	Waterwise, local government campaigns
Catchment management	Waterwatch, catchment management authorities, trusts and associations, stormwater education, Wentworth Group
Sustainable transport	Smogbusters, travel demand management schemes, local government campaigns
Coastal	Marine and Coastal Community Network (Australian Marine and Community Society), Surf Riders Association
Organic and GM-free agriculture	Good Food Guide (Greenpeace), organic industry awareness campaigns
Bushland conservation and restoration	Bushcare, local government weed identification and eradication schemes, Good Wood Guide, volunteer tree planting
Quarantine and pest species	Television and cinema advertising, airport signage and broadcast, fire ant campaign

Table 3: Recent Australian informal environmental education initiatives that present opportunities for popular education

The programmes, projects and organisations identified in Table 3 testify a diverse community of practice. A closer examination of these initiatives (not possible here) would demonstrate the commensurate diversity of objectives and methodologies. Informal education activities geared toward water conservation, recycling and consumer-oriented programs tend to prioritise awareness raising and modest changes in behaviour – reduce domestic water consumption (Waterwise), turn off unnecessary lights, reduce or replace car trips by cycling or using public transport (local government travel demand management). These programs generally rely on simple messages, mass media and modest incentives. A distinct subset of informal education activities rely on the labour of committed volunteers to physically transform their local environment. Thousands of citizens participate in annual Clean Up Australia events, local tree planting and weed eradication.

Informal educators draw on methodologies ranging from didactic (transmissive) instruction, public relations and mass media, social marketing and experiential learning.

Professional development workshops convened in recent years by the UTS Centre for Popular Education and The Change Agency revealed the diverse backgrounds, aspirations and educational assumptions of environmental informal educators. Relatively few practitioners have undertaken professional development and fewer are equipped to reliably evaluate the outcomes (as opposed to outputs) of their programs.

One would expect that the growing recognition of the importance of this field of educational practice, and the diverse sets of practitioners involved would translate into a substantive amount of published research in academic journals. But our preliminary survey indicates that this is not so.

We surveyed the content of four journals in order to identify the extent of research published on popular and informal environmental education. In the *Australian Journal of Environmental Education* from 1996 to 2002 we identified only seven of a total of eighty-nine articles, five of fifteen stories of practice, one of six special millennium essays, and two of eight reading notes, were about informal education. This is a slight improvement to the survey results of Andrew and Malone (1995) who identified just one of ninety-nine articles published during the journal's first decade was directly concerned with informal, environmental education.

In the journal *Environmental Education Research* from 1995 to August 2003 we identified only twelve articles from a total of 170 articles that were concerned with informal environmental education. Parallel figures for the *Journal of Environmental Education* from 1996 to 2003 were twenty-four from a total of 122, and the journal *International Research in Geographical and Environmental Education* from 1997 to 2002 there was only one from a total of sixty-six.

These journals do not cover the full range of published research about education for sustainability. There are other specialist journals such as *Environmental Health, Australian Journal of Environmental Management* and *World Transport Policy & Practice* that we are yet to survey. The International *Journal of Applied Environmen-*

tal Education and Communication and *Convergence*, the journal of the International Council of Adult Education (ICAE), regularly examine adult and community sustainability education initiatives. We should also survey proceedings of relevant conferences in Australia. Yet anecdotal advice suggests that there is only a small amount of published research about popular and informal environmental education in conference proceedings and other journals.

Harris and Robottom (1997, 49) share our observation that researchers and practitioners tend to consider environmental education to be "properly located within schools and universities." But they do prioritise community-based participatory research in their postgraduate courses at Deakin and Canberra universities as a remedy to this bias and as a strategy to catalyse and support community action in order that graduates can "understand and communicate the nature of environmental problems and their relationship within the human contexts in which they arise, and within which they must be solved" (ibid., 51).

At this stage we can only hypothesise possible reasons behind the small amount of published research about popular and informal education for sustainability and encourage further studies in the reasons why. On one hand, the higher status and better working conditions enjoyed by university and school teachers compared to community and workplace educators and environmental activists might be one reason. On the other hand the scepticism and mistrust of research and theorising that characterises parts of the advocacy-oriented environment movement and of the community education sector, may also explain this observation.

Furthermore, there is particularly little of a critical or theoretical nature written about the environment movement and even less written by the activists themselves. On the few occasions that environmental campaigns are documented or evaluated, distribution is minimal and documents do not remain in circulation for long. Practical campaign manuals or "how to" guides for advocacy, whether written by campaigners or academics are not uncommon, but appear to receive minimal distribution. Recent publications that address this gap include Hutton and Connors' (1999) history of the Australian environment movement, McPhillips' edited collection (2002) of accounts of toxic campaigns, Maddison and Scalmer's *Activist Wisdom* (2006) and Cohen's *Greenfire* (1996). However, even these publications do not examine in depth the educational aspects of environmental campaigns, besides, it may not have been their intention to do so.

Amidst this lack of research that has been observed, there is a growing body of theoretical writing that might be classified as popular environmental education. For example, see Fien (1993), Gough (1997) and Singh (2001). These authors draw on Critical Theory in the tradition of the Frankfurt School, arguing environmental education should be experiential, participatory, and action-oriented. But most of their theorising focuses on the practice of formal educators.

As previously mentioned, there is only a small amount of research and published literature about the "educational" practice of environmental activists, workplace and

community educators. Of course, people can have multiple identities and some teachers are also activists. We acknowledge the debate in the literature about whether environmental educators should also be environmental advocates or activists. But our focus is different to the participants in this debate. Our interest lies with those who may not identify as teachers but are engaged in action and learning for the environment, within the context of wider social movements.

A recent book entitled *Global Perspectives in Environmental Adult Education* (2004) acknowledges the relative newness of this field of educational practice. In the introduction, Darlene Clover, editor, states that the book contributes to the development of "environmental learning strategies, theoretical and philosophical foundations for an emerging stream of adult education" (2004, VII). She argues that environmental adult education or environmental popular education, as it is referred to in Latin America and parts of Asia, is the synthesis of adult education and environmental movements discourses and actions – "an activist-based pedagogy" (2004, XVI), very much like our description of popular and informal education for sustainability.

In the closing part of the book, Clover wrote about her experience at the UN-SECO Environmental Education Conference in Thessaloniki in 1997, where after reviewing the conference program, she observed that "there were literally hundreds of presentations and workshop, (however) only two people, (…) drew attention to the relevance of environmental adult education" (2004, 212).

Our observations about the lack of research into popular and informal education for sustainability are not isolated, but also explained partially by being an "emerging stream" of adult education, popular education and or environmental education. The last two sections examine the potential contribution that more research could provide this emerging field of practice and a recommendation of how more research could be achieved.

5. The value of directing more research at informal and popular environmental education

The modest funding directed toward non-government organisations (NGOs) through government community environmental education grants increasingly press recipients to demonstrate measurable change. The community-based Conservation Councils in each Australian state have trialled and fine-tuned behavioural change strategies to effectively reduce domestic car use (Smogbusters) and Greenhouse gas emissions (Cool Communities). The methodologies of these initiatives are now replicated in local and state government programs, reflecting their striking success.

However, to date, researchers have not adequately measured the relative effectiveness of informal environmental education initiatives managed by NGOs, government agencies and industry bodies. Given the high level of credibility associated with peak conservation bodies (NSW EPA, 1994), combined with their non-bureaucratic

nature and ability to mobilise volunteers, it is likely that NGOs present more economical and effective delivery agencies for community environmental education activities.

Government funding also favours community environmental programs that promote voluntary on-ground work such as bushland and waterway monitoring and restoration, fencing and weed control. This emphasis is strikingly reflected in the priority programs funded through the second phase of the Commonwealth's Natural Heritage Trust (NHT): Landcare, Bushcare, Rivercare and Coastcare. The strategies and, indeed, the names of these schemes reflect their focus on short-term identification and remediation of environmental problems rather than on confronting the social and structural factors responsible for these problems. Popular education would confront the structural factors.

The selection criteria and stringent conditions associated with government funding for community-initiated popular environmental education can actively discourage advocacy and participatory democracy. The Smogbusters popular education program, for instance, was funded through the National Heritage Trust for seven years and managed by the network of state conservation councils. In its first three years, the program sought to "test community action" including lobbying and mass media as a strategy to achieve improved urban air quality. This thrust was discouraged, however, in response to complaints from senior public servants whose policy decisions came under public scrutiny (Milne/Hodge 2000).

The national Cool Communities program, which was similarly co-managed by the Conservation Councils and the Australian Greenhouse Office, explicitly forbids project officers from promoting or participating in lobbying activities. The depoliticisation of environmental informal education contrasts sharply with the government emphasis on participatory environmental governance: citizens are increasingly called on to participate in decision-making, but provided with relatively few environmental learning opportunities that simultaneously promote active citizenry (Whelan/La Rocca 2002; Slattery 2000).

The informal adult environmental education case studies presented by Slattery (2000), Fien and Passingham (2002) and Whelan and La Rocca (2003) highlight the potential benefits of research to identify reliable and illuminative evaluative strategies. These case studies, and others discussed by informal educators during recent seminars and conferences at UTS and Griffith University, reflect largely ad hoc approaches to program evaluation: approaches that rely primarily on anecdotal evidence and practitioner reflection rather than rigorous indicators of program outcomes.

6. Promoting popular and informal environmental education through dialogue

In order to encourage more analysis of the various efforts to facilitate action and change for sustainability, we recommend increased opportunities for exchange and

discussion between the various "tribes" engaged in facilitating change for healthy environments. For example, transport planners might be devising elaborate individualised marketing schemes to change transport behaviour so that less vehicle kilometres are travelled, that in turn leads to an abatement of greenhouse gases. Greenpeace activists might be campaigning for climate change. A local government authority could be convening an action research and workshop program for a wide range of stakeholders to learn about and address environmental or health issues. Bicycle activists in a group like Critical Mass are also trying to change transport behaviours. A local community educator may be leading a learning circle about climate change issues. All these "players" share a common interest to facilitate change. Yet they are, more often than not, like "tribes" that rarely draw on each other's knowledge bases, talk to each other, let alone compare the different ways they might effectively contribute to change.

A key challenge to this idea of initiating dialogue is the divide between those who identify as environmental activists and environmental educators.

> The significance attached to the expressions "education" and "activism" by distinct communities of practice amplifies their difference and separation. Environmental activists tend to refer to their media releases, lobbying, rallies and petitions as campaign tactics, not education. Although environmental educators promote awareness, commitment and action and are motivated by similar concerns, their actions may be perceived by activists to be inadequate and apolitical strategies for change (Whelan 2002a, 1).

One possible approach to encourage more dialogue across the "tribes" is to motivate more research and theorising across the broad spectrum of practice. With time, activists, workplace and community educators would read and seek publication in major journals such as the *Australian Journal of Environment Education* if they could see their practice being interrogated. In turn, this would help practitioners from the various "tribes" recognise the common and distinct nature of the challenges they face, theories they draw on, and strategies they use.

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