

Local communities and schools tackling sustainability and climate change

Abstract:

Local communities and their schools remain key sites for actions tackling issues of sustainability and climate change. A government funded environmental education initiative, the *Australian Sustainable Schools Initiative* (AuSSI) working together with state based *Sustainable Schools Programs* (SSP) has the ability to support the development of more effective community and school relationships. We are interested in the possibilities of enabling more authentic and transformative learning experiences in community and school relationships, by developing a more analytical approach to communities and schools working together. Drawing on Uzzell's (1999) framework and a number of recent empirical studies we describe how communities and schools in one Australian state, have been working together for environmental sustainability, point to how the links between local communities and schools continue to be under utilised, and suggest ways that these important relationships can be strengthened and extended.

Key Words:

sustainability; learning; communities; schools; local government

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Introduction

Local communities and schools remain key sites for the development and implementation of programs that tackle issues of climate change and sustainability and provide more authentic and transformative learning experiences in, about, and for the local environment. Despite widespread agreement about the importance of developing environmental awareness during childhood (Department of Environment and Heritage, 2005; Fisman, 2005; Palmer et al., 1999) opportunities and support for environmental education in Australian schools and their communities have remained limited.

Among the issues identified recently, that prevent children from gaining awareness of the environment, are a lack of direct experiences of nature and teachers' uncertainty about environmental education. Malone (2007) commented on how many children were growing up in Australia without any direct experiences of the environment and she called them the 'bubble wrap generation'. Kennelly & Taylor (2008:7) have pointed to the lack of agreement among primary school teachers and educators in Australia "on what environmental education should actually look like in schools, and there is teacher uncertainty as to what is achievable in particular school contexts and even uncertainty as to whether or not environmental education is appropriate in schools".

Having acknowledged Kennelly & Taylor's observation we think it is nonetheless possible to point to a growing interest in what Kalantzis and Cope (2008) call 'new learning', and in exploring new approaches to environmental education with children and young people. These include experiential learning opportunities (Kennelly & Taylor, 2007); place based education (Smith, 2007); local learning (Fishman 2005); and free choice environmental education (Kola- Olusanya, 2004). In their review of environmental education in Australian schools Tilbury et al. (2007) emphasised the need to re-orient and strengthen environmental education in schools, and establish whole-school approaches (Shallcross & Robinson, 2008; Henderson & Tilbury, 2004) that involve staff, students and the community.

These studies suggest that involving children and young people by reaching out beyond the school gate in direct, authentic and transformative educational experiences, remains a major challenge for educators (Hayes & Chodkiewicz, 2006; Kalantzis & Cope, 2008; Whelan, 2005). In this paper we describe and discuss some of the ways communities and schools have been working together for sustainability in one Australian state (New South Wales), and some of the ways we think that more authentic and transformative learning opportunities could be more effectively developed and implemented.

Approach

For the paper we have drawn on the experiences of an important environmental education initiative developed in Australia, the Australian Sustainable Schools Initiative (AuSSI), that had managed by 2009 to involve more than 2,650 schools in the various state based Sustainable Schools Programs (SSP) across the country. We have researched a number of key aspects of the AuSSI focussing on one state's program, the NSW SSP. In drawing on a theoretical framework for supporting the development of

partnerships between communities and schools developed by Uzzell (1999), we have considered the nature of change that could be achieved and the kinds of communities that schools could be working with for sustainability.

These efforts can be located within a broader discourse about community school relationships, where different approaches and models have been developed to support these efforts. Here we acknowledge Epstein's (2001) model for developing home-school relationships to support learning, a model for developing collaborative school- community partnerships (Martin, Tett & Kay, 1999), the NSW Department of Education and Training's Disadvantaged Schools Program model of home, school and community partnerships (NSW DET, 2003) and Guevara's (2006) model for re-conceptualizing school-community partnerships. Mention should also be made of an Australian body of work focussed on whole-school approaches to sustainability (Ferreira, Ryan & Tilbury, 2006; Henderson & Tilbury, 2004) that includes addressing teacher education and schools working with various key players, both within their school, as well as in their local communities.

However, our focus here is more narrow, concentrating on and privileging the notion of 'community'. It is the work of Uzzell (1999) that we draw on to inform ways of strengthening community-school relationships for sustainability. In this paper we report on an analysis of two empirical studies of community and school involvement for sustainability. In the first study (Chodkiewicz & Flowers, 2005) we analysed data collected from 30 schools participating in the NSW SSP, that were rated by the program as outstanding schools. This involved a 'text analysis' of summary descriptions of school activities from field staff reports sent to a NSW SSP program officer. We used these descriptions to assess how they aligned with Uzzell's (1999) models.

With the second study (Chodkiewicz et al., 2007) we analysed the results of a survey of local council and school collaborations across NSW (Martin, 2006), which reported on more than 70 of 152 councils and the ways in which the councils were working with schools on sustainability and climate change issues. The survey was made possible by funding from a partnership between the NSW Department of Environment and Conservation (DEC) and the Local Government and Shires Association (LGSA) that was set up to further develop and promote good sustainability practices by local government, including their work with schools.

Martin (2006) summarised the survey data by grouping the reported activities into ten different categories. They included in-council programs, in-school programs, community projects and green events, grants and awards, access to council information, resources for teaching, assistance with natural resource management, whole school activities, council networking and regional programs. As part of an effort to better understand the kinds of activities being undertaken by councils Chodkiewicz et al. (2007: 8) analysed these activities by drawing on Uzzell's models (1999).

Sustainable Schools Programs

School- focussed environmental programs have been implemented in various forms across both developed and developing countries. In their study, Tilbury & Henderson (2004) highlighted a number of well established international

programs like *Eco-Schools*, set up in 1994 and now operating in 43 countries and involving more than 27,000 schools including 4,000 local authorities (FEE, 2008); *Enviro Schools* in the UK and New Zealand; and the long running *Green Schools* program that worked with over 5,500 schools across Canada (SEEDS, 2009).

In Australia a *Sustainable Schools Program* (SSP) was first piloted in two Australian states, NSW and Victoria, in 2003-4. The program was then expanded to include all states and territories, with federal government support and co-ordination provided through its *Australian Sustainable Schools Initiative* (AuSSI). A total of \$2 million over three years was allocated in 2005 to support the program (DEH, 2005a). By 2009/10 the annual federal allocation had increased to only \$650,000, with each state and territory also supporting their own SSP, by at least matching the level of federal government funding (Plowman, 2009).

By 2009 more than 2,650 schools were involved in the various SSPs across Australia and that number had grown significantly from the 450 schools taking part in four states in 2005. Starting with almost 200 schools in its pilot program, the NSW SSP had grown to involve almost 700 schools by 2009, representing just over 20% of the 3,300 schools in NSW (Plowman, 2009). Supported by a partnership between two key government departments (school education and the environment), the NSW SSP provided schools with a way of focussing their efforts for sustainability, and more recently included a focus on addressing issues related to climate change. It helped schools to address a number of key areas - the school curriculum, the school's management of resources and the school grounds. It encouraged schools to plan and take actions in a more systematic way to address issues of energy, water, waste and bio-diversity (Smith, 2006). Schools were also encouraged to set up a broad based team within the school to oversight their program, to carry out a school audit, and to develop a plan of action. The main tool developed to help schools plan and coordinate their environmental education efforts was the school environmental management plan (SEMP).

From the start schools were encouraged to also work with their local communities and take a whole school approach. This meant not just focussing on teachers and students and the classroom, but drawing on the community both inside and outside the school. This included building up connections and support with parents, local businesses and key agencies like local government (Smith, 2006).

Nature of change

A feature of AuSSI and the SSPs has been the encouragement of schools to work together with local communities for sustainability, and more recently to address issues of climate change. But what type of change can programs like this seek to achieve? One way of categorising the nature of change is to consider a *change continuum* that ranges from conservative views on the one hand to reformist or transformative views on the other.

A *conservative* view of change focuses on preserving existing conditions - to maintain things as they are, to be cautious, moderate and minimise any changes that do occur. A *reformist* view sees change being achieved through improvement and alterations, usually achieved by tackling specific issues like

cleaning up a creek, reducing litter and waste, cutting energy or water use. According to Wheeler (2004:8) a reformist view addresses symptoms but does not tackle foundational norms or structures. On the other hand a *transformative* view involves significant change and, as described by Wheeler (2004: 8), involves a deeper approach to social change, addressing root causes and seeking to achieve major structural or systemic changes for sustainability. Popular educators like Whelan (2005) and Guevara (2006) also work to support this kind of change.

According to Sterling (2003) a major transformative change across the education sector was required in order to achieve a more sustainable society. He concluded that most education policy makers and practitioners were unaware of the scale of change needed to achieve sustainability. Sterling suggested that there was a danger that most education for sustainability had become little more than another curriculum box to be ticked, rather than becoming a key to a transformation that reached into all aspects of a student's educational experiences at school. He pointed to a need for a fundamental re-orientation of education policy towards a new holistic vision of education for sustainability.

Kinds of communities

Part of a re-orientation of environmental education is for schools to think more about their various 'communities' and the kinds of relationships that can be developed with them. As mentioned earlier, a feature of AuSSI and all SSPs has been the encouragement of schools to work with their whole-school community and to reach out and become more involved with their local community. This involvement has been presented as an important contribution to the work of schools for sustainability, and to help address climate change issues (DEWHA, 2008; NSW DET, 2008).

In considering the different 'communities' that schools can work with, Flowers (2002) identified more than nine different kinds of communities that could be involved with a school. They included those working daily *within* a school such as teachers, students, administrative staff, and parents directly involved in school activities inside the school. Those *outside* a school included the wider parent community, local community service agencies, environment advocacy groups, businesses, and other interest-based groups.

In their review of environmental education across Australian schools Tilbury et al. (2005) observed that schools were starting to see the importance of involving their whole-school community. In their study of the NSW SSP Chodkiewicz & Flowers (2005) showed that among the important groups outside schools that were interested and able to work with schools on sustainability were local councils, various government agencies running programs that targeted schools, and many non-government environmental groups that worked locally, regionally or across the state.

Developing community-school partnerships and professional networks within their local community have been seen as effective ways of re-orienting teacher education towards environmental sustainability (Ferreira, Ryan & Tilbury, 2007). This was because partnerships and networks helped with "sharing expertise... maximising the multiplier effect by networking across institutions... providing mutual peer support and encouragement" (p

48). Also Ferreira, Ryan and Tilbury (2007) noted that because teachers often worked on their own in a school on environmental issues, taking part in a professional network was an important way to gain support, advice and access to information.

Uzzell's framework for partnerships

While policies may encourage or recommend them, developing ongoing effective community-school relationships to support learning is not easy. Schutz (2006) argues that while increased community participation in education is needed, generally across the USA in urban school reform projects, there has been a tragic failure of school-based community engagement strategies.

Bearing this in mind a useful framework for supporting the development of partnerships was developed by Uzzell (1999) as a response to his view that environmental education was invariably based on a teaching and learning model which was top-down, where schools did not work closely with their communities, and did not create opportunities for children to learn by engaging in environmental action. His framework proposed four models of the kinds of relationships that developed between schools and communities.

The models saw the school as either:

- an isolated island, working on its own
- inviting the community into the school
- being a guest in the local community
- working together with the community as a social agent.

School as an isolated island

In this model of environmental education, learning took place only *within* the school. Generally it involved activities or projects within the classroom or the school grounds and did not engage with or deal directly with the local community.

Local community invited into school

The second model saw the school inviting members of the local community (agencies, local councils, or local groups) into the school to discuss or take part in specific topics or projects that took place within the school. Mostly it involved presentations, talks or discussions. Generally the issues covered were related directly to particular learning areas and particular school classes or years. The model also included activities where agencies, community groups or parents were invited into the school to assist with a school-based project like a developing a garden or a bio-diversity project in the school grounds.

School as a guest in the community

The third model involved teachers and students going *outside* the school for a visit, to address specific local environment issues and take actions as a guest in the local community. According to Uzzell, in this model, while the school's actions were generally initiated and controlled by the school, they contributed alongside other groups or participants as one part of a larger community project. This kind of activity could include such activities as class visits to centres, facilities or natural habitats; classes monitoring a local creek; or

taking part in a dune care restoration project. A feature of this type of activity was that generally for the school to participate it was important that the activities were directly related to a particular school learning module or subject.

School as a social agent

The fourth model was where the school participants went *outside* into the community and worked together with groups from outside the school. The difference from the previous model was that the explicit aim of this kind of involvement was to achieve significant change for sustainability in the community as a result of the school efforts. The key was a focus on partnerships and taking actions on environmental issues in the local community. Examples included schools becoming involved as a partner in local environmental campaigns, such as the struggle against aircraft noise, or in the preservation of native habitats from development, or in actions to stop the building of a freeway. The emphasis in this form of environmental education was to encourage the development, among students, of responsible, action-oriented strategies to solve real concrete problems within their local environment. In this way students came to understand more fully not only how the natural, but also the social, cultural and political environments, operated in practice (Uzzell 1999, p. 412).

Analysing NSW SSP activities

In our first study analysing NSW SSP school activities (Chodkiewicz & Flowers, 2005, we found that among the 30 schools:

- 17% of schools did not relate to communities directly and the only environmental education that occurred was within the school as the result of the efforts of an individual teacher; (*school as an isolated island*)
- 47% had invited members of the local community into the school to contribute to the teaching of a particular subject area; (*local community invited into school*)
- 20% of the schools had initiated and developed relationships with external groups and included learning and action for the environment in the local community in their teaching program; (*school as a guest in the community*)
- Only 10% were directly involved in learning and action for the environment inside and outside the school; (*school as a social agent*)
- With 6% of the schools there was insufficient information to assess and allocate the school activities involved.

Local councils and school partnerships

One of the largest and most significant local agencies for schools to work with are local councils. Councils collect domestic waste, organise recycling programs, manage stormwater, and are responsible for natural resource management including air, soil, bio-diversity, in local creeks, rivers and beaches. Councils are also important because they can impact on at least 50% of the greenhouse gas emissions in a local area (Westcott, 2007). As such they are an important partner to support work by schools for sustainability and to address issues of climate change. And a number of the schools in the NSW SSP pilot did find that links with their local council provided them with access to environmental education programs, resources and networks (Chodkiewicz & Flowers, 2005).

The kinds of activities reported by Martin (2006) in the LGSA survey involving over 70 local councils were analysed (Chodkiewicz et al., 2007) in terms of Uzzell's following four models discussed earlier:

- schools as isolated island (*Uzzell type 1*);
- councils invited into schools (*Uzzell type 2*);
- schools attending council programs or events (*Uzzell type 3*);
- a council and a school working together for environmental change in the local community (*Uzzell type 4*).

Schools as isolated island (Uzzell type 1)

The survey data (Martin, 2006) we analysed reported on council involvement with schools. It did not report on schools that were not involved with local councils or any other local group or agency i.e. schools that could be described as acting as isolated islands. However the survey results did suggest that there was a majority, among both local councils and schools, that were not involved together in any kind of environmental activities.

Councils invited into schools (Uzzell type 2)

The activities reported where councils were invited into schools included in-school environmental issue programs; providing natural resource management assistance at the school through project or program support; assisting with whole school activities like school audits; providing information and services; providing resources to support student learning on specific issues; council grants and awards recognising schools environmental work like a *Young Environmentalist of the Year* award; and awards of items such as a school water tank or compost bins by a council as a reward for a school's efforts.

Councils were also involved in many examples of classroom based or curriculum-linked educational activities. In these cases councils provided a guest speaker, delivered a series of environmental talks or education programs in schools, or ran school lessons or workshops on particular aspects of sustainability such as waste, energy use, or stormwater.

Attending council programs or events (Uzzell type 3)

There were many reports of schools attending council programs, facilities or events. They included school visits to council depots, waste treatment centres, nurseries, gardens, or council run events (such as community expos or fairs). There were also school organised field study excursions to local wetlands and coastal or river habitats that were the responsibility of the local council.

Working together for environmental change (Uzzell type 4)

Among the activities where councils were reported to be working together with schools for environmental change, most were joint community environmental projects or green events. There were some activities where the school acted as a focus for a broader council led or sponsored community event or project, or where councils were involved with schools as part of an environmental or sustainability network or regional program. Among the examples cited were a Sustainable Suburb community environment event organised at the school; schools working together with a council on a community environmental monitoring programs of local flora and fauna,

wildlife, creeks and rivers; schools being involved in council led Bushcare, Landcare or other community garden projects; and school involvement in council led community environmental forums.

In some cases schools and councils also took part together in community based environmental events that were organised by a community based non-government groups or environmental group. They included well established events such as *Clean Up Australia Day* or *National Tree Day*. There were other examples of events promoted by other agencies such as *World Environment Day*, *Water Week* or *Weed Busters Week*. There were also examples of schools taking part in council led community youth forums or other environmental forums, regional programs like *Catchment Days*, or various planning workshops and regionally based networks.

Finally we also want to highlight that the preliminary findings of a follow up survey of councils working with schools by Martin (2008) showed that among the 62 councils surveyed, the fastest growing new activity that councils reported was their support for environmental education networks of teachers in their area. A total of 25 councils reported that they had set up this kind of network. As mentioned above by Ryan & Tilbury (2007) supporting professional networks was an important way of supporting schools to work for sustainability. Networks also provided other opportunities for both councils and schools to build and strengthen their relationships and capacity for action on sustainability and climate change across a local government area.

Conclusion

Efforts to support and develop environmental education where schools work seriously with and in local communities, remain limited and so far have been only modestly funded. Efforts like AuSSI, and the SSPs in each state and territories, make a valuable start. However, they remain small programs with a low public profile, and generally little is known about them among Australian environmental educators, school educators, parents or local communities.

There is a need to refocus government efforts on the positive and central role that local community-school partnerships can play in achieving more transformative environmental change. As a starting point, local councils are important organisations that can work with schools across a wide range of environmental education activities. As we have indicated from the examples noted above, there are a wide range of opportunities for the development of stronger community-school links, more effective collaborations and partnerships, involving local councils, other government agencies, non-government environmental groups and schools.

A key aspect of any refocus of efforts with school education programs is the need to draw on a more theorised framework of community and school involvement, one that recognises the dominance of the school system in shaping these relationships, but that focuses on, and is inclusive of, the local community. In particular, as this paper shows, there is a need to privilege the community as a key site for environmental learning.

There is value in drawing on Uzzell's (1999) framework to highlight the

various ways that schools can work together with communities. We have shown that local councils are already playing a key role in working with schools. In particular, there are many examples of councils and other agencies being invited into schools and schools going out into the community to attend council events or facilities. Although not many schools have been working with their communities or with local councils as social agents for environmental change (*Uzzell type 4*), providing more transformative educational experiences for their students.

A major challenge for the future is to build on what AuSSI and the various Sustainable Schools Programs have achieved so far, and to strengthen the kinds of relationships and activities that provide opportunities for more authentic and transformative environmental education and actions by local communities in partnership with their schools.

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